

D.A.T.A.BOOK
OF
DISCONTINUED
TRANSISTORS

SUMMER 1969

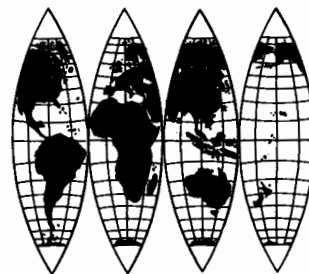
5th EDITION

THIS D.A.T.A.B O O K VALID UNTIL SUMMER 1970 EDITION

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D.A.T.A.

REFERENCE STANDARDS FOR INDUSTRY



D.A.T.A. BOOK OF DISCONTINUED TRANSISTORS

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SUMMER 1969

**5TH
EDITION**



INFORMATION GUIDELINES FOR USE WITH DISCONTINUED TRANSISTOR



- When you search for information refer to any of the 5 Known/Unknown situations below. Follow the outlined procedure to acquire maximum information.
- For outline drawing — refer to your current Transistor D.A.T.A.BOOK (Section 15).
- In each case below — start with the type number of the discontinued device:

You Know **Type Number**
and You Need

➔ **Manufacturer's address**

- A. Turn to type number cross index section 1.
- B. The manufacturers' codes are shown for each type number.
- C. Manufacturers' names in code order are listed at the back of the D.A.T.A.BOOK, together with current or last known address.
- D. In the event the name and/or code of a manufacturer is changed, the most recent manufacturer's code is given.

➔ **Its characteristics**

- A. Turn to type number cross index section 1.
- B. Opposite each type number is the page and line number.
- C. Turn to pertinent page; the line numbers are listed in sequence.
- D. In addition to the electrical data, the drawing referenced at end of the technical data line will be found in your current Transistor D.A.T.A.BOOK.

➔ **Current equivalents or similar types**

- A. Follow through second situation.
- B. Turn to corresponding section of your current Transistor D.A.T.A.BOOK.
- C. Survey characteristics of types to determine which type number might fill your need.
- D. To ascertain manufacturer of suitable type, see first situation and follow through in current Transistor D.A.T.A.BOOK.

➔ **Case and dimensions**

- A. Follow through 2nd situation.
- B. The drawing number will be found in your current Transistor D.A.T.A.BOOK in drawing number order.

➔ **Type number (non-JEDEC) not included in technical sections — what happened to it?**

- A. Turn to type number cross index section.
- B. Note if manufacturer type number has been replaced by a JEDEC number, and a symbol (CUR) current or (Obs) obsolete will tell you if the data can be found in the Transistor D.A.T.A.BOOK or the Discontinued Transistor D.A.T.A.BOOK.
- C. If the JEDEC number is obsolete, refer to that number in the index to locate its technical data.
- D. If the JEDEC number is current, technical details will be found in the current edition of the Transistor D.A.T.A.BOOK.
- E. If type number you seek is not included in either D.A.T.A.BOOK, it is a private number.

T A B L E O F CONTENTS

TECHNICAL DATA SECTIONS

Things You'll Want To Know	iv - v
Explanations of Symbols & Codes	vi - vii
1 TYPE NUMBER CROSS INDEX	2 - 17
In type number sequence indicating all manufacturers (coded) of each obsolete type.	
LOW-POWER TRANSISTOR SECTIONS	
Normally under 1 watt dissipation in free air.	
2 GERMANIUM PNP TYPES	18 - 32
3 GERMANIUM NPN TYPES	33 - 34
4 SILICON PNP TYPES	35 - 38
5 SILICON NPN TYPES	39 - 49
6 FIELD-EFFECT P CHANNEL TYPES	50
7 FIELD-EFFECT N CHANNEL TYPES	51
HIGH-POWER TRANSISTOR SECTIONS	
Normally over 1 watt dissipation in free air.	
8 GERMANIUM PNP TYPES	52 - 57
9 GERMANIUM NPN TYPES	58
10 SILICON PNP TYPES	59
11 SILICON NPN TYPES	60 - 67
SPECIAL SECTIONS	
12 SWITCHING TRANSISTORS	68 - 72
These types are also listed in previous sections. This section includes additional switching data.	
13 MISCELLANEOUS TRANSISTORS	73 - 77
For categories see Symbol/Code Explanation — Page vi	
SUPPLEMENTARY SECTION	
14 MANUFACTURERS AND THEIR ADDRESSES	78 - 80
D.A.T.A. SERVICES	82

THINGS YOU'LL WANT TO KNOW . .

Purpose

This DISCONTINUED TRANSISTOR D.A.T.A.BOOK is designed to provide comprehensive, technical reference information on transistors which are no longer being manufactured. While there are still quite a few discontinued transistor types on which data have not yet been released by the manufacturers, it is hoped you will be able to resolve most of your search or replacement problems with this D.A.T.A.BOOK.

Scope

6543 Discontinued Transistors previously produced by manufacturers throughout the free world are represented in this D.A.T.A.BOOK — including all discontinued types which have appeared, at any time, in the TRANSISTOR D.A.T.A.BOOK, and some previously unpublicized types, the data on which manufacturers have recently made available to us.

Solving Your Problem

With this D.A.T.A.BOOK you can proceed from a discontinued transistor type number to its characteristics — then to the corresponding technical section of the current TRANSISTOR D.A.T.A.BOOK to locate presently manufactured types having similar characteristics.

Or, if you need only information on who manufactured a discontinued type number, the answer is at your fingertips in the Type No. Cross Index of this D.A.T.A.BOOK.

Organization & Use

Type No. Index

1. In type number order, this index indicates the codes of all previous manufacturers (interpreted at end of D.A.T.A.BOOK) of each type number, as well as the page and line numbers where the technical data will be found, EXCEPT . . .
2. Manufacturer type numbers which have been replaced by JEDEC numbers indicate that JEDEC type number and whether current (CUR) or obsolete (OBS):
 - a. If the JEDEC number is obsolete, you refer to that number in the index to locate its technical data;
 - b. If the JEDEC number is current, technical details will be found in the current edition of the TRANSISTOR D.A.T.A.BOOK.

NOTE: Where "house" type numbers are shown as having been replaced by JEDEC numbers, it should be borne in mind that the characteristics of the JEDEC type may not exactly match those of the prototype "house" number. Usually, however, the JEDEC type number can be considered a direct replacement for the "house" type.

Technical Data Sections

1. As outlined in the Table of Contents of this D.A.T.A.BOOK, there are 12 technical sections which coincide with those in the current TRANSISTOR D.A.T.A.BOOK.
2. Within each technical section, type numbers, are listed in order of characteristics which coincide with those in the current TRANSISTOR D.A.T.A.BOOK.
3. As a practical means of providing more complete information in the technical sections, symbols and codes are utilized in column headings and in the columns themselves. Explanations of these symbols and codes are given on pages **vi** and **vii** of this D.A.T.A.BOOK.

Manufacturers and Their Addresses

1. In order of the letter codes, as employed in the Type No. Index, the names and addresses of the discontinued transistor manufacturers are set forth to assist you in any in-depth search you might find necessary.
2. Manufacturer addresses shown are the most recent ones recorded in our files. Some of the manufacturers, however, may be completely out of business; others may be in business but not in transistor production; and others are currently producing transistors.
3. In the event the name and/or code of a manufacturer changed, or a manufacturer's transistor line was taken over by another manufacturer, the most recent manufacturer code, name, and address are given. Such changes are indicated, as illustrated by the following example:

CLE — Clevite — see ITT

Summary

The DISCONTINUED TRANSISTOR D.A.T.A.BOOK will be published in complete editions once a year, incorporating all types which have been discontinued since the last edition. Continuing effort will also be made to secure additional discontinued transistor types, along with their technical data, which heretofore had not been publicized by the manufacturers.

Updating

Your copy of this DISCONTINUED TRANSISTOR D.A.T.A.BOOK, in combination with a subscription to the always-current TRANSISTOR D.A.T.A.BOOK, will go a long way toward making you one of the best-informed "transistor men" in the electronics industry.

Every effort has been made to ensure the accuracy and completeness of this DISCONTINUED TRANSISTOR D.A.T.A.BOOK; however the publisher cannot be held responsible for, or guarantee against the possibility of, error or omission.

EXPLANATIONS OF SYMBOLS AND CODES EMPLOYED IN THIS D.A.T.A.BOOK

(for emergency use if separate Symbol/Code Interpreter is misplaced)

TYPE No. (All Sections)

Δ } Indicators of separate manufacturers producing same type number (non-JEDEC) whose characteristics are not the same. This manufacturer-identifying symbol (assigned by D.A.T.A.) is an integral part of the type number (in Type No. Cross Index, Technical Data Sections, and Manufacturers and Their Types Section) to avoid the possibility of confusing the device of one manufacturer with the devices of the others.
 \square }
 $\%$ }

Example . . .	Type No.	Manufacturer	Description
	S35 Δ	SELB	Sect. 5
	S35 \square	ROSG	Sect. 13
	S35 $\%$	TII	Sect. 8

For SECTION 1 — TYPE NO. CROSS INDEX Preceding Manufacturer Code

Δ — Registered with JEDEC by this manufacturer

For SECTIONS 2 - 11 — TECHNICAL DATA SECTIONS

Arranged alphabetically by governing column headings without regard to section number

GENERAL NOTES: (1) When letters representing units follow a value in a column of a technical section, the units shown in the column heading do not apply.
 (2) All values in this D.A.T.A.BOOK are typical and given at 25°C ambient unless otherwise indicated.

- Bias — I_C
 ϕ - I_B Δ - I_E
- Bias — I_E
 ϕ - I_C Δ - I_B
- Bias — V_{CE}
 ϕ - V_{CE}
- BV_{CBO}
 \dagger - At Temp. 25°C Case
- BV_{CEO}
 $\#$ - BV_{CEX} or punch-through \S - BV_{CER} \square - $BV_{CEO(SUS)}$
 ϕ - BV_{CES} * - Pulsed
- BV_{DSS}
 Δ - BV_{DSO} \dagger - BV_{DSX}
- BV_{GSS}
 Δ - BV_{DGO}
- BV_{EBO}
 \dagger - At Temp. 25°C Case
- C_{ob}
 \square - Maximum $\$$ - C_{cb} \S - C_{iss} (FET's only) \dagger - C_{re}
- Derate
 \emptyset - With infinite heat sink
- Description
 I_{off} - Offset current r_d - Dynamic resistance
 I_p - Peak current V_{GD} - Gate-to-drain voltage
 I_{SR} - Intrinsic standoff ratio V_{off} - Offset voltage
 I_v - Valley current V_{PO} - Pinchoff voltage
 $R_{b1/b2}$ - Interbase resistance
- Drawing No. \rightarrow for Sections 6 and 7

\square - Phototransistor Device
Δ - Tetrode Device
$\%$ - Composite type
- $f\alpha_b$
 \dagger - $f\alpha_c$
 \S - Gain bandwidth product (f_T)
 $*$ - Maximum frequency of oscillation
 ϕ - Figure of merit (frequency for unity power gain)
 Δ - Minimum \square - Maximum
- $f\alpha_c$
 \dagger - $f\alpha_b$
 \S - Gain bandwidth product (f_T)
 $*$ - Maximum frequency of oscillation
 ϕ - Figure of merit (frequency for unity power gain)
 Δ - Minimum \square - Maximum
- gfs
 Δ - Typical \dagger - Pulsed $\%$ - High Frequency (y_{fs})
- h_{FE}
 \dagger - h_{FE} Δ - Minimum \S - Y_{fs} in millimho (FET's only)
 $\#$ - Pulsed \square - Maximum * - Available to selected range Bias values are V_{DS} & I_B
 ϕ - Typical * - Available to selected range narrower than indicated
- h_{ie}
 \dagger - h_{FE} Δ - Minimum * - Available in selected ranges.
 $\#$ - Pulsed \square - Maximum \S - h_{FC}
 \S - Y_{fs} in millimho (FET's only) Bias values are V_{DS} & I_B
- h_{oe} , h_{ie} , h_{re}
 b - h parameters are h_{ob} , h_{ib} , h_{rb} \square - Maximum
- I_B ϕ - I_E $\#$ - Pulsed
- I_C ϕ - I_E \dagger - At Temp. 25°C Case $\#$ - Pulsed or Peak
- I_E ϕ - I_C Δ - I_B
- Lead Code
 See Lead Code Identification Guide on inside back cover of Interpreter and at end of Section 13.
- Line No.
 \blacktriangledown - New type
 $\#$ - Non-JEDEC type manufactured outside U.S.A. \blacklozenge - Revised specifications
- Material
 Ge - Germanium Si - Silicon
- Max. Coll. Diss.
 ϕ - With infinite heat sink
 Following symbols indicate temperature at which derating starts:
 \dagger - 40°C \square - 60°C \blacklozenge - 80°C $\#$ - 50°C
 $*$ - 45°C \S - 70°C Δ - Pulsed $\$$ - 100°C
- Max. C_{is}
 $\#$ - C_{iss} (output shorted) * - Typical
 Δ - C_{dgs} \square - C_{dss}
 \dagger - C_{gss} \emptyset - C_{dgo}
 $\%$ - Not given at test conditions
- Max. Delay Time
 $\$$ - Charge storage time constant ϕ - $T_{ON} = t_r + t_d$
 \blacktriangledown - Stored base charge — picocoulomb \dagger - Typical value
 \blacklozenge - Total switching time
- Max. Device Dissipation
 Δ - With Infinite Heat Sink \dagger - Above 25°C; For additional information consult mfr.

Δ - 85°C
for Sec
2, 3, 4, 5

- **Max. Fall Time**
 $\phi - T_{off} = t_r + t_f$ * - $T_{on} + T_{off} = t_d + t_r + t_f + t_s$
 \dagger - Typical value
- **Max. I_{CBO}**
 ϕ - At $V_{CB} < \text{Max. } V_{CB}$ (see mfr. spec.)
 $\# - I_{CEX}$ ♦ - At Temp. 25°C Case
 $\S - I_{CES}$ $\Delta - I_{CEO}$
 \dagger - At temp. > 25°C * - I_{CER}
- **Max. I_b (on)**
 $\Delta - I_{OSS}$ @ $V_{GS} = 0$ and $V_{DS} \approx V_P$ # - Minimum
 $\phi - V_{GS} > 0$ % - Pulsed
* - Typical
- **Max. I_{ESS}**
 $\Delta - I_{EBO}$
- **Max. Rise Time**
 \S - Charge storage time constant $\phi - T_{ON} = t_r + t_d$
 ∇ - Stored base charge — picocoulomb \dagger - Typical value
 \blacklozenge - Total switching time
- **Max. Sat. Res.**
 ∇ - Typical value $\S - R_{on}$ (FET's only) # - Pulsed
- **Max. Storage Time**
 $\phi - T_{off} = t_s + t_r$ * - $T_{on} + T_{off} = t_d + t_r + t_f + t_s$
 \dagger - Typical value
- **Max. Temp.**
* - 50-65°C \ddagger - 130-135°C A - Ambient
 ϕ - 70-80°C \S - 140-165°C C - Case
 $\#$ - 85-100°C \S - 170-200°C J - Junction
 \blacklozenge - 110-125°C ∇ - Over 200°C S - Storage
- **Max. Thermal Res.**
Symbols indicate temperature at which derating starts. ♦ - 80°C
 \dagger - 40°C \boxtimes - 60°C \S - 100°C
* - 45°C \S - 75°C ϕ - Free air
 $\#$ - 50°C ∇ - Typical value
 Δ - > 100°C
- **Max. V_p at $I_D \approx 0$**
 $\dagger - V_{GS}$ (cut off) % - Typical
 $\Delta - V_{GST}$ (Threshold)
- **& V_{DS}**
 Δ - Depletion Mode, Type A
 \S - Depletion-Enhancement Mode, Type B
* - Enhancement Mode, Type C
- **$r'_{bb} \times C_{ob}$**
 $\dagger - r'_{bb}$
- **r_{DS}**
% - Maximum Δ - Not given at test conditions
 $\dagger - R_{DS(on)}$ @ $V_{DS} = 0$

- **Structure**
A - Alloy
AN - Annular
D - Diffused or drift
DM - Diffused mesa
E - Epitaxial
EA - Epitaxial annular
EM - Epitaxial mesa
F - Fused
G - Grown
MA - Micro alloy
MD - Micro alloy diffused
ME - Mesa
MOS - Metal oxide silicon
N - NPN or N Channel
P - PNP or P Channel
PA - Precision alloy
PC - Point contact
PD - Precision alloy diffused

- PE - Planar epitaxial
- PL - Planar
- S - Surface barrier
- * - Matched Pair
- \boxtimes - Switching, other uses
- \boxplus - Chopper, other uses
- ϕ - Noise figure 8db or below
- \dagger - Plastic Package
- \S - Field Effect Transistor
- # - Radiation Resistant Device
- $\$$ - Tetrode

for Sections 6 and 7	
Ge	- Germanium
#	- Junction Type
*	- Insulated Gate (MOS type)
\S	- Matched Pair

- **t_r**
 \boxtimes - Maximum $\S - t_r$ $\dagger - t_s + t_f = T_{off}$
 $\phi - t_r + t_d = T_{on}$ # - t_r

- **Type No.**
 \dagger - Switching type, also listed in Section 12
 ϕ - Chopper, also listed in Section 13, Category 10

* - These types also included elsewhere with other characteristics. See Type No. Cross Index for alternate line No.

\S - Radiation Resistant Devices. Also listed in Section 13, Category 13.

∇ - Matched Pair, also listed in Section 13, Category 6.

\blacklozenge - Phototransistor, also listed in Section 13, Category 7.

- **V_{CB}**
 $\phi - V_{CE}$
- **V_{DS}**
 $\Delta - V_{EBO}$ $\dagger - V_{DC}$
- **V_{ES}**
 $\phi - I_b$ in mA
- **Yes**

- $\Delta - Y_{11}$ % - Maximum
- \dagger - Not at given test conditions * - Pulsed

For SECTION 13 — MISCELLANEOUS TRANSISTORS

- **Category**
- 1 - Avalanche Mode
- 2 - Bi-directional
- 3 -
- 4 - Hook Collector
- 5 - Complementary—Symmetry (PNP & NPN) Matched Pair
- 6 - Matched Pair
- 7 - Phototransistor
- 8 -
- 9 - Unijunction
- 10 - Chopper
- 11 - Composite
- 12 - Cryogenic
- 13 - Radiation Resistant Devices
- 14 - Pressure Sensitive
- 15 - Chips

1. TYPE No. CROSS INDEX

IN TYPE NUMBER SEQUENCE

TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line
1B1055	GESEY	none	2N25	Δ WEC	30-78	2N248	Δ TTI	18-107	JAN2N496	PHIL	35-44	2N743/46	SYL	47-50
Repl.by D11B1055 Cur.			2N26	Δ WEC	24-23									
2AC128	MINA	none	2N27	WEC	none									
	MULB		Repl.by 2N29	Obs.	33-100	2N258	Δ ETC	36-8	2N496/18	SPR	35-59	2N743/51	SYL	45-97
Repl.by 2N2431MP Obs.			2N28	WEC	33-102	2N259	Δ RAYN	36-9						
2AT128	ANOVA	74-17	2N29	Δ WEC	24-90	2N260	Δ CLE	35-99	2N501/18	SYL	28-89	2N744/46	SYL	47-51
2G108	SGSI	27-23	2N30	Δ GSEY	24-90	2N260A	Δ CLE	35-100						
2G109	SGSI	27-28	2N31	Δ GSEY	24-99	2N261	Δ CLE	35-100	2N509	WEC	31-35	2N744/51	SYL	45-98
2G138	SGSI	30-67	2N32	Δ RCAS	19-98	2N262	Δ CLE	35-103	2N528	WEC	52-45			
2G139	SGSI	30-67		CLE	19-98	2N262A	Δ CLE	35-104	JAN2N528	none	52-46	2N745	Δ RAYN	41-58
2G140	SGSI	30-72	2N32A	Δ RCAS	19-99	2N266	Δ GSEY	21-38	2N537	WEC	31-34			
2G139	SGSI	30-79	2N33	Δ RCAS	19-99	2N267	Δ RCAS	19-22	2N541A	TEC	42-68	2N746	Δ RAYN	41-70
2G141	SGSI	30-83	2N34/5	SYL	27-72	JAN2N274	RCAS	23-46	2N544	Δ RCAS	23-54	2N747	Δ RAYN	41-72
2G201	SGSI	27-24	2N35/5	SYL	34-15	2N285	Δ BEN	53-108	GEM	SYL				
2G202	SGSI	27-29	2N38A	Δ CBS	19-46	2N290	BACE		2N544/33	Δ WEC	23-55	2N748	Δ RAYN	40-35
2G223	TIIB	56-19	2N41	Δ RCAS	19-47	2N299	Δ DEL	55-46	2N559	Δ WEC	29-15			
2G224	TIIB	56-20	2N46	Δ RCAS	19-48		Δ PHIL	18-42		ETC	72-59	2N749	Δ RAYN	42-95
2G225	TIIB	56-21	2N47	Δ PHIL	19-83	2N300	Δ SPR	18-41	JAN2N559/1	MOTA	none	2N750	Δ RAYN	42-86
2G226	TIIB	56-22	2N48	Δ PHIL	19-84		Δ PHIL	18-41	Repl.by JAN2N559 Cur.			2N751	Δ RAYN	42-74
2G227	TIIB	56-23	2N48	Δ PHIL	19-84		Δ PHIL	18-41	JAN2N559/2	MOTA	none	2N753/51	SYL	45-43
2G228	TIIB	56-24	2N49	Δ PHIL	19-85	JAN2N300	none	19-39	Repl.by JAN2N559 Cur.					
2G229	TIIB	56-25	2N50	Δ CLE	19-100	2N301B	ITT	56-53	JAN2N559/3	MOTA	none	2N770	Δ PHIL	41-86
2G230	TIIB	56-25	2N51	Δ CLE	24-41	2N301G	ITT	56-54	Repl.by JAN2N559/3	MOTA	none	2N771	Δ PHIL	41-96
2G231	TIIB	56-26	2N52	Δ CLE	25-75	2N301W	ITT	56-55	2N577	Δ MULB	75-23	2N772	Δ PHIL	41-85
2G231	TIIB	56-27	2N53	Δ CLE	24-110	2N313	GSEY	33-55	2N588A	GIC	20-71	2N773	Δ PHIL	39-39
2G270	SGSI	31-13	2N54	Δ WESY	29-91	2N314	GSEY	33-57	2N591/5	KSC	19-76	2N774	Δ PHIL	39-42
2G271	SGSI	31-14	2N55	Δ WESY	29-92	2N315B	Δ GIC	28-28		SYL		2N775	Δ PHIL	40-97
2G301	SGSI	21-81	2N56	Δ WESY	29-93		ETC		2N592	Δ GTC	73-8	2N776	Δ PHIL	40-64
			2N57	Δ MIN	53-92	2N318	Δ GTC	75-20		ETC		2N777	Δ PHIL	40-89
2G302	SGSI	28-41	2N62	Δ PHIC	19-49	2N325	Δ SYL	52-92	2N593	Δ GTC	73-9	2N778	Δ PHIL	42-13
			2N66	Δ WEC	53-104		GEM			ETC		2N779	Δ PHIL	20-86
2G303	TIIB	30-50	2N67	Δ WEC	74-12	2N327	Δ RAYN	37-2	2N602	SEM	26-14			
2G304	TIIB	30-84	2N68	Δ SYL	52-62		TII		2N602A	SEM	26-7	2N779B	Δ PHIL	28-105
2G306	TIIB	30-87		GEM		2N328	Δ RAYN	37-3	2N603	SEM	26-24			
2G308	TIIB	28-5	2N71	Δ WESY	52-1		TII		2N603A	GIC	26-8	2N781	RAYN	GSEY
2G309	TIIB	28-59	2N72	Δ RCAS	20-7	2N329	Δ RAYN	37-5	2N604	SEM	26-36			
2G319	SGSI	30-106	2N73	Δ WESY	29-78	2N330	Δ RAYN	37-4			70-36	2N784A/46	SYL	46-62
			2N74	Δ WESY	29-79	JAN2N332	TII	41-2	2N604A	GIC	26-9			
2G320	SGSI	30-110	2N75	Δ WESY	29-80	JAN2N334	TII	41-20	2N605	Δ GTC	26-11	2N784A/51	SYL	46-63
			2N76	Δ GSEY	19-89	2N347	BOG	49-6	2N606	Δ GTC	26-15	2N789	RAYN	41-10
2G321	SGSI	31-8	2N79	Δ RCAS	19-17	2N348	BOG	49-7	2N607	Δ GTC	26-17	2N790	Δ RAYN	41-21
			2N80	Δ CBS	32-17	2N349	BOG	49-8	2N608	Δ GTC	26-23	2N791	Δ RAYN	41-36
2G322	TADI	27-109	2N81	Δ GSEY	19-50	2N352	Δ PHIL	53-31	2N619	Δ RAYN	43-85	2N792	Δ RAYN	41-22
			2N82	Δ CBS	19-5	2N353	Δ PHIL	53-75	2N620	Δ RAYN	43-87	2N793	Δ RAYN	41-40
2G323	SGSI	28-10	2N83	TEC	52-82	2N354	Δ PHIL	35-56	2N621	RAYN	43-90	2N799	Δ RAYN	21-104
			2N83A	TEC	52-83	2N370	RCAS	23-47	2N622	Δ RAYN	46-101			
2G324	TADI	28-12	2N84	TEC	52-84	2N371	SEM	23-48	2N623	TII	19-40	2N800	Δ RAYN	21-105
			2N84A	TEC	52-85	2N370/33	SYL	23-48	2N624	Δ SYL	25-20			
2G339A	TIIB	34-24	2N95	Δ SYL	58-4	2N371	ANOVA	23-49		ETC		2N801	Δ RAYN	21-72
2G344	TIIB	28-60		GEM			RCAS		2N625	Δ SYL	61-76			
2G345	TIIB	28-23	2N96	Δ RCAS	32-18		SYL			GEM		2N802	Δ RAYN	21-73
2G371	TIIB	28-24	2N97A	Δ BOG	33-21	2N371/33	SYL	23-50	2N626	ADV	76-55			
2G374	TIIB	28-25	2N98A	Δ BOG	33-23	2N372	RCAS	23-51	2N640	SEM	23-80	2N803	Δ RAYN	21-100
2G376	TIIB	28-26	2N100	Δ BOG	33-1		SEM		2N641	SEM	23-81			
2G377	TIIB	28-27		BEN		2N372/33	SYL	23-52	2N642	SEM	23-82	2N804	Δ RAYN	21-101
2G381	TIIB	31-20	2N101	Δ SYL	52-63	2N374	RCAS	23-53	2N643	SEM	26-19			
2G382	TIIB	31-21		GEM		2N384/33	SYL	28-43			69-81	2N805	Δ RAYN	21-110
2G383	TIIB	31-22	2N102	Δ SYL	58-5	2N386	Δ PHIL	53-109	2N644	SEM	26-34			
2G384	TIIB	31-23		GEM		2N387	Δ PHIL	53-110			70-21	2N806	Δ RAYN	69-50
2G385	TIIB	31-24	2N109/2N17EQ	AMP	26-65	2N389/1	SIL	65-55	2N645	RCAS	26-37			
2G386	TIIB	31-25		AMP		2N389A/1	SIL	65-56			70-43	2N807	Δ RAYN	22-2
2G387	TIIB	31-26	2N109/5	SYL	27-34	2N391	DEL	55-47	2N646	RCAL	33-74	2N808	Δ RAYN	22-3
2G394	SGSI	28-13	2N110	Δ WEC	30-57	JAN2N398	GIC	none	2N647/22	SYL	34-43	2N809	Δ RAYN	21-79
2G395	SGSI	28-37	2N115	Δ APX	55-90		MOTA		2N649/5	KSC	24-43	2N810	Δ RAYN	21-80
				AMP		Repl.by JAN2N398A Cur.			2N649/22	SYL	34-44	2N811	Δ RAYN	21-90
2G396	SGSI	28-46	2N123/5	KSC	28-47	2N421	BACE	54-1	2N670	PHIL	31-50	2N812	Δ RAYN	21-91
				SYL	69-16	2N422A	Δ RAYN	29-77	2N671	Δ PHIL	52-32	2N813	Δ RAYN	22-9
2G397	SGSI	28-61	2N127	Δ TII	33-30	2N424/1	SIL	65-57	2N673	Δ PHIL	52-33	2N814	Δ RAYN	22-10
2G398	TADI	69-46	2N129	Δ PHIL	18-96	2N424A/1	SIL	65-58	2N674	GIC	31-49	2N815	Δ RAYN	21-83
			JAN2N129	SPR	18-97	JAN2N431	none	41-28	2N675	Δ PHIL	52-3			
2G401	TADI	30-92	2N138A	Δ RAYN	27-17	JAN2N432	none	41-29	2N676	ADV	76-56	2N816	Δ RAYN	21-84
			2N138B	Δ RAYN	24-42	JAN2N433	none	41-30	2N694	Δ WEC	25-46			
2G402	TIIB	30-93	2N141	Δ SYL	52-64	2N451	GSEY	66-10	JAN2N694	none	24-44	2N817	Δ RAYN	21-52
				GEM		2N452	GSEY	66-11	2N695	Δ MOTA	22-23			
2G403	TIIB	30-94	2N142	Δ SYL	58-6	2N453	GSEY	66-12			71-42	2N818	Δ RAYN	21-53
2G404	TIIB	30-91	2N143	Δ SYL	52-65	2N454	GSEY	66-13	2N700/18	SYL	22-46			
2G413	TIIB	25-36		GEM		JAN2N456A	BEN	none	2N700A/18	SYL	22-47	2N819	Δ RAYN	21-62
2G414	TIIB	25-38	2N144	Δ SYL	58-7		DEL		2N701	MOTA	39-41			
2G415	TIIB	25-39		GEM			ITT		2N706/51	SYL	71-10	2N820	Δ RAYN	68-103
2G416	TIIB	25-40	2N148	TII	33-48	Repl.by JAN2N456B Cur.				TEC				
2G417	TIIB	25-35	2N148A	TII	33-49	JAN2N457A	BEN	none	2N706/KVT	TEC	49-80	2N822	Δ RAYN	33-64
2G508	SGSI	28-21	2N149	TII	33-50		DEL		2N706/TPT	TEC	41-101			
2G509	SGSI	28-22	2N149A	TII	33-51	Repl.by JAN2N457B Cur.			2N706A/51	SYL	45-41	2N823	Δ RAYN	33-65
2G524	SGSI	30-1												

1. TYPE No. CROSS INDEX

IN TYPE NUMBER SEQUENCE

TYPE No.	MFRS/Pg&Line	TYPE No.	MFRS/Pg&Line	TYPE No.	MFRS/Pg&Line	TYPE No.	MFRS/Pg&Line	TYPE No.	MFRS/Pg&Line	TYPE No.	MFRS/Pg&Line
2N866	Δ TII 47-88	2N1132/KVT	TEC 38-39	2N1504	Δ CBS 53-34	2N1827	Δ WESY 87-89	2N2182	Δ PHIL 35-41		
		2N1132/TNT	TEC 35-17					2N2183	Δ PHIL 35-42		
2N867	Δ TII 47-89	2N1132/TPT	TEC 35-66	2N1508	Δ TII 49-19	2N1828	Δ WESY 67-90	2N2184	Δ PHIL 35-43		
		2N1132A/46	TEC 37-95	2N1509	Δ TII 49-20			2N2208	Δ RCA 25-79		
2N902	Δ RAYN 41-11	2N1132B/46	SYL 37-97	JAN2N1511	RCA 64-69	2N1834	Δ WESY 67-91	2N2209	Δ RCA 28-38		
2N903	Δ RAYN 41-23			JAN2N1512	RCA 64-70			JAN2N2210	DEL 55-98		
2N904	Δ RAYN 41-37	2N1132B/51	SYL 36-77	JAN2N1513	RCA 64-71	2N1835	Δ WESY 67-92				
2N905	Δ RAYN 41-24			JAN2N1514	RCA 64-72			2N2211	Δ MOTA 56-32		
2N906	Δ RAYN 41-41	2N1135	Δ PHIL 35-11	2N1515	APX 24-16	2N1837B	Δ GESY 49-46	2N2212	Δ GESY 75-66		
2N907	Δ RAYN 41-59	2N1135A	Δ PHIL 35-12	2N1516	Δ APX 24-17			2N2213	Δ TRW 44-50		
		JAN2N1158A	PHIL 21-29	2N1517	APX 24-18			2N2214	Δ NORC 38-30		
2N908	Δ RAYN 41-71	2N1173	Δ WEC 34-58	JAN2N1517	none 24-19			2N2216	Δ NORC 38-30		
				2N1517A	APX 25-32			2N2217/51	SYL 45-99		
2N914/51	SYL 46-89	2N1174	Δ WEC 69-4	2N1524/33	SYL 31-31	2N1839A	TRW 60-1				
2N914A	Δ FSC 46-64			2N1526/33	SYL 69-11	2N1841	NSC 62-93	2N2218/TNT	TEC 40-50		
		2N1182	Δ TUNE 71-105	2N1528	RAYN 54-70	2N1841	NSC 62-93	2N2218/TPT	TEC 41-103		
2N917/46	SYL 47-54	JAN2N1196	none 37-8	2N1585	Δ TII 37-8	2N1853/18	SYL 27-38	2N2219/51	SYL 45-100		
		2N1199A	Δ PHIL 41-87	2N1606	Δ PHIL 41-87	2N1893/46	TEC 47-105				
2N917/51	SYL 46-13	JAN2N1199A	none 41-73			2N1893/51	TEC 41-74				
				2N1607	Δ PHIL 70-44	2N1893/KVT	TEC 49-84				
2N918/46	SYL 47-56	2N1200	Δ PHIL none 39-83	2N1608	Δ PHIL 39-85	2N1893/TNT	TEC 40-12				
		JAN2N1200	Δ PHIL none 39-86			2N1893/TPT	TEC 41-75				
2N918/51	SYL 46-18	2N1201	Δ PHIL none 39-85	2N1609	Δ DEL 52-54	2N1894	Δ RAYN 65-70	2N2218/TNT	TEC 40-50		
		JAN2N1201	Δ PHIL none 39-87	2N1610	Δ DEL 52-55	2N1895	Δ RAYN 65-71	2N2218/TPT	TEC 41-103		
2N929/51	SYL 45-9	2N1208/I	SIL 64-106	2N1611	Δ DEL 52-52	2N1896	Δ RAYN 65-72	2N2219/51	SYL 45-101		
		2N1209/I	SIL 64-107	2N1612	Δ DEL 52-53						
2N930/51	SYL 45-10	2N1210/I	SIL 64-40	2N1613/46	TEC 48-9	2N1903	PSI 66-99	2N2223	Δ STCB 62-94		
		2N1211/I	SIL 64-41	2N1613/51	TEC 41-88	2N1907A	Δ TII 56-92				
2N930/KVT	TEC 49-81	2N1212/I	SIL 64-108	2N1613/KVT	TEC 49-85	2N1908A	Δ TII 56-93	2N2225	Δ STCB 62-95		
2N930/TPT	TEC 41-60	2N1232A	HUG 37-59	2N1613/TNT	TEC 40-17	2N1923	Δ TII 49-16				
2N930A/46	TEC 47-1	2N1238	HUG 59-7	2N1616/I	SIL 59-9	2N1940	MOTA 52-47	2N2225	Δ WEC 31-40		
2N930A/51	TEC 41-61	2N1239	HUG 59-8	2N1617A/I	SIL 59-10	JAN2N1940	none 52-53	2N2244	NSC 47-92		
2N934	Δ RCA 28-81	2N1240	HUG 59-9	2N1618/I	SIL 59-13	2N1941	Δ ITC 48-41	2N2245	NSC 47-93		
2N955	Δ RCA 34-41	2N1241	HUG 59-10	2N1618A/I	SIL 59-14	2N1942	Δ ITC 30-58	2N2246	NSC 47-94		
		2N1242	HUG 59-11	2N1619	TEC 53-32			2N2247	NSC 47-95		
2N955A	MOTA WTC 72-106	2N1242A	HUG 59-12	2N1620/I	SIL 53-33	2N1958/18	SYL 45-28	2N2248	NSC 47-96		
		2N1243	HUG 59-13	2N1622	Δ GIC 64-104			2N2249	NSC 47-97		
2N958	TRW 44-49	2N1244	HUG 59-14			2N1959/18	SYL 45-29	2N2250	NSC 47-98		
2N959	TRW 43-80	2N1245	Δ CBS 53-32					2N2251	NSC 47-99		
2N960/46	SYL 29-16	2N1246	Δ CBS 53-33			2N1959A/51	SYL 45-30	2N2252	NSC 47-100		
		2N1250/I	SIL 64-104					2N2253	NSC 47-101		
2N961/46	SYL 29-17	2N1252A	Δ RHE 49-24			2N1960	Δ SYL 70-39	2N2254	NSC 47-102		
2N962/46	SYL 29-18							2N2255	NSC 47-103		
		2N1253A	Δ RHE 49-27	2N1631	RCA 26-29	2N1960/46	SYL 27-40	2N2256	NSC 47-104		
2N964/46	SYL 29-19			2N1633	GIC 26-25	2N1961	SYL 27-41	2N2272	Δ GESY 46-65		
2N977	Δ PHIL 29-11	BEN 70-28	PSI 70-28	2N1634	GIC 26-26						
				2N1635	GIC 26-30			2N2297/51	SYL 68-21		
		2N1261A	MIN 53-94	2N1636	Δ RCAS 26-31	2N1961/46	SYL 27-42				
2N988	PSI 45-64	2N1262A	MIN 53-95			2N1962	SYL 27-43	2N2303/46	TEC 37-96		
2N989	PSI 45-65	2N1263A	MIN 53-96					2N2303/51	TEC 35-67		
2N995A	Δ FSC 37-12	2N1264	Δ SYL 19-101	2N1637/33	SYL 26-32	2N1962/46	SYL 27-44	2N2303/KVT	TEC 38-38		
		2N1264A/13	SYL 35-6	2N1638/33	SYL 26-27			2N2303/TNT	TEC 35-18		
2N1003	SGSI TEC 70-63	2N1285	SYL 26-44	2N1644A	GIC 48-59	2N1963	SYL 27-45	2N2303/TPT	TEC 35-68		
2N1004	Δ MOTA 25-78	2N1287	Δ BEN 29-27	2N1645	Δ WEC 52-71			2N2306	Δ PSI 62-89		
2N1005	Δ TII 40-98			2N1646	Δ GESY 27-37	2N1963/46	SYL 27-46	2N2307	INRC 75-67		
2N1006	Δ TII 40-99	2N1287A	Δ BACE 29-28					2N2319	GIC 45-67		
2N1009	Δ BEN 27-74	2N1288	Δ GESY 33-66	2N1657	Δ RAYN 64-12	2N1964	SYL 27-47	2N2320	GIC 48-92		
		2N1289	Δ GESY 33-67					2N2340	Δ DEL 63-8		
2N1013	MIN 52-57	2N1300	RCA 28-83			2N1964/46	SYL 27-48	2N2341	Δ DEL 63-9		
2N1014	Δ RCAS 54-69			2N1658	HON 69-110			2N2342	Δ DEL 63-10		
2N1016B/M	WESY 67-14	2N1301	RCA 28-86	2N1659	MIN 52-94	2N1965	SYL 27-49	2N2343	Δ DEL 63-11		
2N1016C/M	WESY 67-15			2N1660	Δ RAYN 65-65			2N2354	SYL 34-45		
2N1019	ADV 74-10	2N1315	Δ APX 55-93			2N1965/46	SYL 27-50	2N2363	TII 22-55		
2N1020	ADV 74-11	2N1358M	DEL 56-57	2N1661	TII 70-2						
JAN2N1021	BEN none			2N1662	Δ RAYN 65-66	2N1978	Δ FSC 63-44	2N2368/51	SYL 46-9		
JAN2N1022	DEL TII none	2N1361	Δ GESY 28-15	2N1663	Δ RAYN 65-67						
		2N1361A	Δ GESY 30-56	2N1664	TII 70-3	2N1992	NSC 46-36	2N2369/51	SYL 72-81		
RepI. by JAN2N1022A	Cur. none	2N1392	GIC 75-24								
		2N1393	GIC 75-25	2N1665	Δ MOTA 68-107	2N2022	Δ WEC 27-62	2N2369/KVT	TEC 49-83		
RepI. by JAN2N1022A	Cur. none	2N1394	GIC 75-26	2N1666	Δ MOTA 68-108	2N2032/I	SIL 64-109	2N2369/TPT	TEC 42-2		
		2N1398	Δ TII 19-6	2N1667	GIC 29-12	2N2033/S	SIL 61-96	2N2379	Δ TUNE 56-98		
JAN2N1026A	SSD 56-28	2N1399	Δ TII 19-7	2N1668	GIC 26-6	2N2034/S	SIL 61-97				
2N1029	CLE 56-29	2N1400	Δ TII 19-8	2N1669	Δ SYL 23-13	2N2048A	Δ SPR 28-93	2N2391	Δ TII 38-36		
2N1030	CLE 56-30	2N1401	Δ TII 19-9	2N1670	Δ WEC 66-46			2N2392	Δ TII 38-37		
2N1030A	CLE 56-31	2N1401A	Δ TII 19-10	2N1671	ETC 26-18	2N2059	Δ CBS 20-62	2N2397	SYL 45-44		
2N1030B	CLE 56-32	2N1402	Δ TII 19-11	2N1672	GIC 38-28	2N2069	BRUB 55-94				
2N1030C	BEN 56-56	2N1403	Δ TII 31-33	2N1673	Δ TII 38-29			2N2403	Δ NAS 66-6		
		2N1404	Δ TII 28-6	2N1674	NSC 48-13	2N2070	BRUB 55-95	2N2404	Δ NAS 66-7		
2N1042-21	none 53-6	2N1404A	Δ TII 22-52	2N1675	Δ SYL 25-8	2N2071	BRUB 55-96	JAN2N2426	none 34-14		
2N1042-20	none 53-7	2N1405	Δ TII 22-53	2N1676	Δ SYL 33-96			2N2446	Δ CLE 56-33		
2N1043-21	none 53-8			2N1677	Δ SYL 25-37	2N2072	BRUB 55-97				
2N1043-20	none 53-9	2N1406	Δ TII 22-54	2N1678	Δ GESY 45-66			2N2447	Δ RAYN 21-40		
2N1044-21	none 53-10	2N1407	Δ TII 22-55	2N1679	GIC 71-106	2N2093	Δ APX 25-34	2N2448	Δ RAYN 21-41		
2N1044-20	none 53-11			2N1711/46	TEC 48-11	2N2094	SPR 48-75	2N2449	Δ RAYN 21-42		
2N1045-21	none 53-12	2N1419	Δ CLE 56-58	2N1711/51	TEC 41-94	2N2094A	SPR 48-76	2N2450	Δ RAYN 21-43		
2N1045-20	none 53-13	2N1421	Δ TEC 67-52	2N1711/KVT	TEC 49-86	2N2095A	SPR 48-77	2N2451	FSC 73-19		
2N1047C	Δ TII 63-101	2N1422	Δ TEC 67-53	2N1711/TNT	TEC 40-21	2N2096A	SPR 47-40	2N2452	FSC 73-20		
2N1048C	Δ TII 63-102	2N1423	Δ TEC 67-98	2N1711/TPT	TEC 41-95	2N2097A	SPR 47-41	2N2472	Δ GESY 62-19		
2N1049C	Δ TII 63-103	2N1424	Δ TEC 67-99	2N1722/I	Δ RCAS 23-103	2N2098	SPR 31-74	2N2473	Δ GESY 61-92		
2N1050C	Δ TII 63-103	2N1425	Δ RCAS 23-68	2N1722A/I	SIL 65-62	2N2100A	Δ SPR 31-39	2N2475/46	SYL 47-55		
2N1060	NSC 44-33	2N1426	Δ PHIL 35-15	2N1724/I	SIL 65-68						
		2N1428	Δ CRY 24-63	2N1724A/I	SIL 65-6						

1. TYPE No. CROSS INDEX

IN TYPE NUMBER SEQUENCE

TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line
2N2594/TNT	TEC	40-62	2N2872	HUG	37-52	2N3981	NSC	48-53	2SA79	TOSJ	20-29	2SA404	none	22-38
2N2594/TPT	TEC	42-3			75-99			71-45	2SA80	HITJ	23-86	2SA405	NECJ	28-104
2N2618	SYL	48-78	2N2873	RCA	25-72	2N3982	Δ NSC	49-54	2SA81	HITJ	23-74			71-100
2N2618/46	SYL	47-42	2N2886	TRW	49-21			71-43	2SA82	HITJ	23-87	2SA410	NECJ	71-104
2N2620	Δ AML	73-21	2N2902	Δ TII	66-45	2N3983	Δ TII	43-38	2SA83	HITJ	23-56	2SA411	NECJ	29-14
2N2621	Δ DEL	28-64	2N2904/TNT	TEC	35-19	2N3984	Δ TII	43-35	2SA84	HITJ	23-75	2SA425	YECJ	30-96
2N2622	Δ DEL	28-69	2N2904/TPT	TEC	35-71	2N3985	Δ TII	43-27	2SA85	HITJ	23-88	2SA426	YECJ	30-98
2N2623	Δ DEL	28-73	2N2908	Δ SIL	64-105	2N4042	UCC	74-29	2SA86	HITJ	31-9	2SA430	TOSJ	21-18
2N2624	Δ DEL	28-65	2N2927/46	SYL	37-98	2N4043	UCC	74-30	2SA87	HITJ	23-106	2SA431	TOSJ	21-20
2N2625	Δ DEL	28-70			70-73	2N4081	RCA	43-49	2SA88	HITJ	23-100	2SA431A	TOSJ	21-21
2N2626	Δ DEL	28-74			70-74	2N4086	Δ GESY	42-41	2SA89	HITJ	23-101	2SA432	TOSJ	21-19
2N2627	Δ DEL	28-66	2N2927/51	SYL	70-74	2N4087	Δ GESY	42-42	2SA90	HITJ	30-90	2SA432A	TOSJ	20-109
2N2628	Δ DEL	28-71	2N2928	Δ SYL	29-13	2N4087A	Δ GESY	42-43	2SA92	TOSJ	20-36	2SA433	TOSJ	20-35
2N2629	Δ DEL	28-75	2N2931	ITT	39-25	2N4099	UCC	45-40	2SA93	TOSJ	20-34	2SA458	MITJ	28-39
2N2630	MOTA	71-91	2N2932	ITT	39-26			74-31	2SA94	HITJ	23-83			69-9
2N2649	CSC	61-100	2N2933	ITT	39-27	2N4133	Δ ITT	61-13	2SA126	NECJ	28-103	2SA459	MITJ	28-40
2N2650	CSC	61-101	2N2934	ITT	39-28	2N4262	Δ MOTA	62-90			71-99			69-10
2N2655	Δ GESY	62-20	2N2935	ITT	39-29	2N4263	Δ MOTA	62-91	2SA127	TOSJ	28-127	2SA460	MITJ	20-82
2N2672A	Δ APX	24-45	2N2942	Δ SPR	28-94	2N4284	NSC	36-29	2SA128	TOSJ	29-32	2SA461	MITJ	20-83
2N2673	Δ GESY	44-9			70-102	2N4285	NSC	36-30	2SA129	TOSJ	29-33	2SA462	MITJ	20-84
2N2674	Δ GESY	44-10	2N2943	SPR	28-91	2N4387	RCA	43-50	2SA130	HITJ	23-95	2SA463	MITJ	22-26
2N2675	Δ GESY	44-11			70-91	2N4420	TII	46-76	2SA131	HITJ	23-89	2SA464	MITJ	20-88
2N2676	Δ GESY	44-12	2N2954	Δ PHIL	43-25			72-23	2SA132	HITJ	23-93	2SB25	TOSJ	53-76
2N2677	Δ GESY	44-14	2N2962	Δ SPR	31-83	2N4421	TII	46-66	2SA133	HITJ	23-84	2SB26	TOSJ	53-77
2N2678	Δ GESY	44-26	2N2963	Δ SPR	31-84			71-80	2SA134	HITJ	23-107	2SB26A	TOSJ	53-78
2N2699	Δ PHIL	34-40	2N2964	Δ SPR	31-85	2N4422	TII	46-77	2SA135	HITJ	23-109	2SB27	SONY	52-36
2N2709	Δ RAYN	36-6	2N2965	Δ SPR	31-86			72-24	2SA151	HITJ	23-16	2SB28	SONY	52-37
2N2718	Δ MOTA	31-15	2N2966	Δ PHIL	20-87	2N4423	TII	37-22	2SA152	HITJ	23-23	2SB29	SONY	52-38
		71-2	2N2967	Δ PHIL	45-102			72-52	2SA153	NECJ	18-39	2SB30	SONY	52-39
2N2719	Δ SYL	45-45			68-7	2N4438	FSC	60-63	2SA154	NECJ	18-34	2SB31	SONY	74-33
2N2743	Δ WESY	67-67	2N3000	UST	28-72	2N4439	FSC	60-64	2SA155	NECJ	18-35	2SB43	TOSJ	74-13
2N2744	Δ WESY	67-68	2N3003/4053	RCA	61-69	2N4973	Δ RAYN	35-108	2SA156	NECJ	18-36	2SB43A	TOSJ	27-83
2N2749	Δ WESY	67-69	2N3081/46	SYL	37-104	2N5017	RCA	63-52	2SA157	NECJ	18-40	2SB44	TOSJ	22-83
2N2750	Δ WESY	67-70			70-108	2N5049	GESY	66-14	2SA159	NECJ	18-37	2SB46	TOSJ	22-84
2N2755	Δ WESY	67-71	2N3081/51	SYL	36-87			69-30	2SA160	NECJ	18-38	2SB47	TOSJ	22-85
2N2756	Δ WESY	67-72			70-109	2N5276	Δ TII	77-1	2SA169	NIPJ	27-6	2SB48	SONY	27-25
2N2762	Δ WESY	67-73	2N3123	MOTA	49-63	2NJ50	KOKJ	20-60	2SA170	NIPJ	29-49	2SB49	SONY	27-30
2N2767	Δ WESY	67-74	2N3131	NSC	41-99	2NJE1	KOKJ	20-58	2SA171	NIPJ	26-109	2SB50	SONY	27-31
2N2768	Δ WESY	67-75			71-48	2NJE2	KOKJ	22-59	2SA173	NIPJ	26-61	2SB51	SONY	30-35
2N2773	Δ WESY	67-76	2N3132	ITT	56-34	2NJE3	KOKJ	22-60	2SA174	NIPJ	29-47	2SB52	SONY	30-51
2N2774	Δ WESY	67-77	2N3148	Δ SPR	18-51	2OC26	RADF	74-32	2SA175	TOSJ	20-41	2SB53	SONY	30-52
2N2779	Δ WESY	67-78			69-78	2OC72	AMP	none	2SA180	SANJ	20-6	2SB52	TOSJ	52-66
2N2780	Δ WESY	67-79	2N3152	Δ MOTA	61-27				2SA181	SANJ	19-110	2SB53	TOSJ	52-67
2N2784/51	ECD	46-19	2N3162	FSC	74-19				2SA182	SANJ	19-105	2SB64	KOKJ	54-5
		72-103	2N3216	Δ TII	28-90				2SA211	HITJ	25-104			54-6
2N2784/52	TEC	46-20			70-57	Repl. by 2N282	Cur.				68-97	2SB69	TOSJ	54-6
		72-104	2N3224	HUG	38-24	2P389	SIL	59-53	2SA213	NIPJ	18-28	2SB73	HITJ	19-97
2N2784/KVT	TEC	49-68	2N3230	CDC	76-57	2P389A	SIL	none	2SA214	NIPJ	18-29	2SB74	HITJ	22-61
2N2784/TPT	TEC	42-4				Repl. by 2N3168	Cur.		2SA215	NIPJ	18-26	2SB76	HITJ	27-46
2N2786	PHIC	31-37	2N3231	CDC	76-58	2P424	SIL	59-54	2SA216	NIPJ	18-27	2SB78	HITJ	27-47
2N2786A	APX	31-38				2P424A	SIL	none	2SA229	TOSJ	22-44	2SB80	HITJ	52-56
2N2793	MOTA	56-99	2N3241	RCA	47-90	2P424A	SIL	none	2SA230	TOSJ	22-45	2SB81	HITJ	52-51
2N2794	Δ TUNE	73-22	2N3242	RCA	47-91	2S013	TII	64-110	2SA231	HITJ	52-49	2SB82	HITJ	52-52
2N2797	Δ SPR	22-21	2N3309A	Δ MOTA	61-44	2S021	TII	66-65	2SA232	HITJ	52-50	2SB83	HITJ	52-95
		71-39	2N3310	Δ MOTA	45-68	2S022	TII	36-71	2SA233	HITJ	52-50	2SB84	HITJ	52-96
2N2798	Δ SPR	22-22	2N3374	SEM	61-45	2S023	TII	36-72	2SA236	TOSJ	23-102	2SB85	HITJ	55-43
		71-40	2N3400	SPR	28-95	2S30	KOKJ	19-21	2SA237	TOSJ	20-32	2SB86	HITJ	55-44
2N2799	Δ SPR	22-17			70-110	2S31	KOKJ	19-20	2SA242	MATJ	20-25	2SB87	HITJ	55-45
		70-90	2N3406	Δ GESY	75-68	2S32	KOKJ	19-71	2SA243	MATJ	20-26	2SB90	TOSJ	19-35
2N2800/46	SYL	37-102	2N3407	Δ MOTA	43-28	2S33	KOKJ	19-72	2SA247	HITJ	25-42	2SB91	TOSJ	19-30
		70-92	2N3408	Δ MOTA	59-32	2S34	KOKJ	27-79			71-22	2SB94	TOSJ	27-84
2N2800/51	SYL	38-84	2N3413	HUG	37-30	2S41	KOKJ	54-71	2SA250	MATJ	29-76	2SB97	TOSJ	19-31
		70-93	2N3435	Δ RCA	60-62	2S043	TII	none	2SA253	FCAJ	30-97	2SB98	NECJ	26-100
2N2801/46	SYL	37-103	2N3443	Δ MOTA	31-72	Repl. by BLY47A	Cur.		2SA280	MATJ	26-39	2SB99	NECJ	26-101
2N2801/51	SYL	36-85	2N3450	Δ RAYN	48-56	2S044	TII	none	2SA281	MATJ	26-40	2SB102	NECJ	29-62
		70-94			70-59	Repl. by BLY48A	Cur.		2SA285	NECJ	20-10	2SB103	NECJ	26-96
2N2808	Δ RAYN	43-61	2N3451	Δ FSC	36-88	2S045	TII	none	2SA286	NECJ	20-12	2SB104	NECJ	29-63
2N2808A	Δ RAYN	43-68			71-94	Repl. by BLY49A	Cur.		2SA287	NECJ	20-14	2SB105	NECJ	31-100
2N2809	Δ RAYN	43-62	2N3462	Δ APX	45-7	2S046	TII	none	2SA288	HITJ	23-110	2SB106	NECJ	31-109
2N2809A	Δ RAYN	43-66	2N3463	Δ APX	45-8	Repl. by BLY50A	Cur.		2SA289	HITJ	24-1	2SB108	NECJ	31-101
2N2810	Δ RAYN	43-63	2N3482	Δ MOTA	75-69	2S96	KOKJ	19-12	2SA290	HITJ	24-2	2SB108A	NECJ	31-102
2N2810A	Δ RAYN	43-67	2N3514	Δ GESY	74-20	2S97	KOKJ	19-13	2SA296	YECJ	23-14	2SB108B	NECJ	31-103
2N2826	Δ DEL	31-92	2N3517	Δ GESY	74-21	2S98	KOKJ	19-14	2SA297	YECJ	23-24	2SB109	NECJ	31-110
2N2827	Δ DEL	31-93	2N3519	Δ GESY	74-22	2S720	TII	65-75	2SA298	YECJ	23-70	2SB109A	NECJ	32-1
2N2849-1	SSP	62-21	2N3523	Δ GESY	74-23	2S741	TII	39-76	2SA301	MATJ	26-45	2SB109B	NECJ	32-2
		69-85	2N3526	Δ FSC	49-25	2S742	TII	39-77	2SA302	MATJ	24-14	2SB110	NECJ	24-78
2N2849-2	SSP	62-22	2N3577	Δ TII	66-5	2S744	TII	39-78	2SA303	MATJ	24-15	2SB111	NECJ	24-79
		69-86	2N3586	Δ NSC	36-11	2S745	TII	39-79	2SA306	YECJ	23-92	2SB112	NECJ	24-80
2N2849-3	Δ SSP	62-23			75-100	2S745	TII	39-80						

1. TYPE No. CROSS INDEX

IN TYPE NUMBER SEQUENCE

TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line
2SB174	MATJ	30-104	2SC113	HITJ	49-11	2T3033	SONY	53-39	4JD4A5	GESY	41-54	7G34	GESY	none
2SB183	HITJ	19-77			71-8	2T3041	SONY	74-39	4JD7A35	GESY	61-93	Repl.by 2N2727	Cur.	
2SB184	HITJ	19-51	2SC114	HITJ	49-9	2T3042	SONY	74-40	4JD12C101	GESY	75-101	10B551	GESY	40-44
2SB219	NECJ	30-105			70-48	2T3043	SONY	74-41	4JD12C102	GESY	75-102	10B553	GESY	40-25
2SB224	NECJ	30-109	2SC117	HITJ	60-104	2V362	ELBR	25-95	4JD12X010	GESY	76-59	10B553-2.3	GESY	none
2SB228	HITJ	55-40			70-39	2V363	ELBR	25-90	4JD12X011	GESY	76-60	Repl.by D10B553-2.3	Cur.	
2SB229	HITJ	55-41	2SC118	HITJ	60-105	2V464	ELBR	23-1	4JD12X012	GESY	76-61	10B555	GESY	40-26
2SB230	HITJ	55-42	2SC119	HITJ	60-106	2V465	ELBR	23-2	4JD12X013	GESY	75-103	10B555-2.3	GESY	none
2SB231	SONY	54-9	2SC125	HITJ	24-12	2V466	ELBR	23-8	4JD12X014	GESY	76-62	Repl.by D10B555-2.3	Cur.	
2SB232	MATJ	54-104	2SC140	SONY	60-3	2V467	ELBR	23-19	4JD12X043	GESY	74-46	10B556	GESY	40-27
2SB233	MATJ	54-105	2SC147	SONY	60-90	2V482	ELBR	23-6	4JD12X047	GESY	74-47	10B556-2.3	GESY	none
2SB234	MATJ	54-106	2SC153	HITJ	49-15	2V483	ELBR	23-9	4JD12X070	GESY	75-104	Repl.by D10B556-2.3	Cur.	
2SB238	NECJ	52-97	2SC157	HITJ	40-79	2V484	ELBR	23-26	4JD12X132	GESY	76-63	10B701	GESY	39-12
2SB246	NECJ	55-51	2SC158	HITJ	40-81	2V485	ELBR	23-29	4JD20A7	GESY	64-50	10B705	GESY	71-109
2SB258	TO5J	55-99	2SC159	HITJ	40-82	2V486	ELBR	23-33	4JD20A8	GESY	64-51	10B1051	GESY	none
2SB259	TO5J	55-100	2SC160	HITJ	40-84	2V559	ELBR	23-73	4JX16A567	GESY	43-13	Repl.by D10B1051	Cur.	
2SB260	TO5J	55-101	2SC166	HITJ	42-72	2V560	ELBR	23-60	4JX16A667	GESY	42-44	10B1055	GESY	none
2SB264	NECJ	21-14			69-65	2V561	ELBR	23-61	4JX16A667/G	GESY	42-45	Repl.by D10B1055	Cur.	
2SB266	YECJ	27-96	2SC167	HITJ	42-73	2V562	ELBR	23-43	4JX16A667/O	GESY	42-46	10C573	GESY	40-28
2SB267	YECJ	27-97			69-66	2V563	ELBR	23-44	4JX16A667/R	GESY	42-47	10C573-2.3	GESY	none
2SB268	MITJ	31-27	2SC173	SONY	33-5	2V631	ELBR	25-93	4JX16A667/Y	GESY	42-48	Repl.by D10C573-2.3	Cur.	
2SB269	YECJ	27-98	2SC175	SONY	33-2	2V632	ELBR	25-91	4JX16A668	GESY	42-49	10C574	GESY	40-29
2SB274	HITJ	52-89	2SC176	SONY	33-3	2V633	ELBR	25-89	4JX16A668/G	GESY	42-50	10C574-2.3	GESY	none
2SB275	HITJ	52-90	2SC177	SONY	33-4	2xOC308	none	74-42	4JX16A668/O	GESY	42-51	Repl.by D10C574-2.3	Cur.	
2SB276	HITJ	52-91	2SC178	SONY	33-6	2xOC318	BRUB	74-43	4JX16A668/Y	GESY	42-52	10D556-2.3	GESY	40-59
2SB293	YECJ	27-92	2SC191	SONY	44-16		INTG		4JX16A669	GESY	42-53	10D701	GESY	39-14
2SB294	YECJ	27-93	2SC192	SONY	43-94	3N21	Δ SYL	24-46	4JX16A669/G	GESY	42-54	10D702	GESY	39-13
2SB296	TO5J	55-37	2SC193	SONY	44-2			68-24	4JX16A669/Y	GESY	42-55	10E1051	GESY	39-15
2SB299	YECJ	27-99	2SC194	SONY	44-17	3N22	Δ WEC	33-7	4JX16B670/G	GESY	42-56			72-78
2SB300	TO5J	55-38	2SC195	SONY	43-95	3N23	GIC	33-29	4JX16B670/R	GESY	42-57	10G1051	GESY	39-2
2SB301	TO5J	55-39	2SC196	SONY	44-3	3N23A	GIC	33-31	4JX16B670/Y	GESY	42-58	10G1052	GESY	none
2SB312	MATJ	54-73	2SC197	SONY	44-18	3N23B	GIC	33-33	4Z9-4Z12	GESY	73-25	Repl.by D10G1052	Cur.	
2SB313	MATJ	54-74	2SC244	NECJ	65-77	3N23C	GIC	33-35	5B24	GESY	75-71	10H551	GESY	39-88
2SB315	MITJ	27-85	2SC245	NECJ	65-78	3N25	Δ TII	75-51	5B25	GESY	75-72	10H551-2.3	GESY	none
2SB316	MITJ	27-86	2SC246	NECJ	65-79	3N25/501	TII	18-63	5C28	GESY	75-73	Repl.by D10H551-2.3	Cur.	
2SB317	MITJ	31-28	2SC267A	NECJ	41-77	3N26	Δ TII	40-67	5C29	GESY	75-74	10H553	GESY	39-89
2SB321	TO5J	19-36	2SC286	NECJ	40-57	3N27	Δ TII	40-68	5C30	GESY	75-75	10H553-2.3	GESY	none
2SB322	TO5J	19-37	2SC287	NECJ	40-58	3N29	GESY	33-42	5E29	GESY	75-76	Repl.by D10H553-2.3	Cur.	
2SB323	TO5J	19-38	2SC288	NECJ	40-63	3N30	GESY	33-45	5G514	GESY	75-77	10H1051	GESY	39-90
2SB355	MITJ	52-104	2SC323	TO5J	44-59	3N31	GESY	33-39	5G515	GESY	75-78	10H1053	GESY	39-91
2SB356	MITJ	52-105	2SC360	TO5J	44-44	3N32	TII	40-71	5G516	GESY	75-79	10T2	FTFH	40-72
2SB357	MITJ	52-106	2SC361	TO5J	43-5	3N33	Δ TII	40-76	6B10	GESY	66-15	11B551	GESY	39-95
2SB358	MITJ	55-52	2SC362	TO5J	43-6	3N35A	Δ TII	40-83	7A30	GESY	none	11B551-2.3	GESY	none
2SB359	MITJ	55-53	2SC363	TO5J	43-7			75-52	Repl.by D7A30	Cur.	none	Repl.by D11B551-2.3	Cur.	
2SB360	MITJ	55-54	2SC376	TO5J	43-8	3N36	Δ GESY	33-8	7A31	GESY	none	11B552	GESY	39-98
2SB384	YECJ	22-62	2SC396	TO5J	46-2				Repl.by D7A31	Cur.	none	11B552-2.3	GESY	none
2SB385	YECJ	22-63	2SC479H	HITJ	48-93	3N37	Δ GESY	33-9	7A32	GESY	none	Repl.by D11B552-2.3	Cur.	
2SB413	TO5J	52-101			71-36				Repl.by D7A32	Cur.	none	11B554	GESY	40-7
2SB414	TO5J	52-102	2SC492	TO5J	65-54	3N56	FTFH	40-100	7A35	GESY	61-77	11B554-2.3	GESY	none
2SB443	HITJ	24-100	2SC514	TO5J	61-75		TEC	75-53	7B1	GESY	none	Repl.by D11B554-2.3	Cur.	
			2SC519	TO5J	66-34	3N57		40-101	Repl.by D7B1	Obs.	none	11B555	GESY	40-8
2SB444	HITJ	24-101	2SC520	TO5J	66-35			75-54	7B2	GESY	none	11B555-2.3	GESY	none
			2SC521	TO5J	66-36	3N96	SIX	50-32	Repl.by D7B2	Obs.	none	Repl.by D11B555-2.3	Cur.	
2SB450	MITJ	30-16	2SC580	NECJ	49-55			74-44	7B3	GESY	none	11B556	GESY	39-99
			2SC613	NECJ	46-97	3N97	SIX	50-33	Repl.by 2N2611	Cur.	none	11B556-2.3	GESY	none
					72-89			74-45	7B4	GESY	none	Repl.by D11B556-2.3	Cur.	
2SB450A	YECJ	30-17			72-76	3N98	RCA	51-13	Repl.by 2N2201	Cur.	none	11B560	GESY	39-100
2SB451	MITJ	31-56	2SC679H	HITJ	62-6			73-23	7B13	GESY	60-107	11B560-2.3	GESY	none
2SB452	MITJ	31-57	2SC699	MITJ	62-6			51-14	7B33	GESY	none	Repl.by D11B560-2.3	Cur.	
2SB452A	MITJ	31-58	2SD19	NECJ	33-110	3N99	RCA	73-24	Repl.by 2N3589	Cur.	none	11B1052	GESY	40-18
2SB453	MITJ	68-69	2SD20	NECJ	34-1			75-55	7B34	GESY	none	11B1055	GESY	none
2SB454	MITJ	68-70	2SD21	NECJ	34-2	3S001	TIIB	40-85	Repl.by 2N3590	Cur.	none	Repl.by D11B1055	Cur.	
2SB455	MITJ	68-71	2SD22	NECJ	34-3	3S002	TIIB	75-56	7C1	GESY	none	11B1257	GESY	49-30
2SB471A	HITJ	54-75	2SD23	NECJ	34-4			75-57	Repl.by D7C1	Obs.	none	11B1258	GESY	49-28
2SB471B	HITJ	54-76	2SD25	NECJ	33-99	3S003	TIIB	40-86	7C2	GESY	none	11B1259	GESY	47-69
2SB472A	HITJ	54-77	2SD100A	TO5J	34-55	3S004	TIIB	75-58	Repl.by D7C2	Obs.	none	11B1260	GESY	49-22
2SB472B	HITJ	54-78			34-57			33-44	7C3	GESY	none	11C1B1	GESY	61-47
2SB477	MITJ	56-59	2SD122	HITJ	61-94	3T201	SONY	33-43	Repl.by D7C3	Obs.	none	11C1F1	GESY	61-2
2SB478	MITJ	56-60	2SD123	HITJ	61-95	3T202	SONY	33-40	7C4	GESY	none	11C3B1	GESY	61-48
2SB479	MITJ	56-61	2SD124	HITJ	63-29	3T203	SONY	33-40	Repl.by 2N2202	Cur.	60-84	11C3F1	GESY	61-3
2SB480	MITJ	56-62	2SD125	HITJ	63-30	3TE120	BRUB	66-98	7C13	GESY	none	11C5B1	GESY	61-49
2SC11	TO5J	33-47	2SD191	TO5J	58-1		CLE		7D1	GESY	none	11C5F1	GESY	61-4
2SC12	TO5J	48-106	2SD192	TO5J	58-2			64-47	Repl.by D7D1	Obs.	none	11C7B1	GESY	none
2SC13	TO5J	33-54	2SD193	TO5J	34-56	3TE130	BRUB		7D2	GESY	none	Repl.by D11C7B1	Cur.	
2SC14	TO5J	33-59	2SD194	TO5J	58-3		CLE		Repl.by D7D2	Obs.	none	11C7F1	GESY	none
2SC15	SONY	60-2	2SFT212	NPC	74-38			62-18	7D3	GESY	none	Repl.by D11C7F1	Cur.	
2SC15-1	SONY	49-47	2T11	SONY	19-78	3TE150	BRUB		Repl.by D7D3	Obs.	none	11C10B1	GESY	61-50
2SC15-2	SONY	49-48	2T12	SONY	19-79		CLE		7D4	GESY	none	11C10F1	GESY	61-5
2SC15-3	SONY	49-49	2T13	SONY	19-80	3TE160	BRUB	61-26	Repl.by 2N2203	Cur.	none			

1. TYPE No. CROSS INDEX

IN TYPE NUMBER SEQUENCE

TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line
11CF4	GESE	80-71	32N2	SSD	none	118XA	WESY	none	355	TII	52-103	1005	GME	none
11CF5	GESE	80-72	Repl.by 2N736	Cur.	none	118XB	WESY	none	420	TII	none	Repl.by 11005	Obs.	none
11CF6	GESE	80-73	33K3	SSD	none	118XC	WESY	none	421	TII	none	1009	GME	none
11CF7	GESE	80-74	Repl.by 3N71	Cur.	none	118XD	WESY	none	422	TII	none	Repl.by 51009	Obs.	19-52
11CF8	GESE	80-75	34N2	SSD	none	118XE	WESY	none	423	TII	29-75	1032	CLE	19-53
11G702	GESE	39-8	Repl.by 2N739A	Cur.	none	118XF	WESY	none	424	TII	none	1033	CLE	19-54
11G703	GESE	39-9	35N2	SSD	none	118XG	WESY	none	425	TII	none	1034	CLE	19-55
11G1052	GESE	39-10	Repl.by 2N740A	Cur.	none	118XH	WESY	none	426	TII	none	1035	CLE	19-56
11G1053	GESE	39-11	35T1	CDLF	19-104	118XI	WESY	31-96	427	TII	none	1036	CLE	19-57
11T1	FTFH	52-4	36T1	CDLF	19-108	118XJ	WESY	none	428	TII	none	1037	CLE	19-58
11T2	FTFH	40-73	37T1	CDLF	20-1	118XK	WESY	none	429	TII	none	1038	CLE	19-59
12A8	AEIL	74-48	38N2	SSD	none	118XL	WESY	none	430	TII	none	1039	CLE	19-60
12A304	GESE	74-49	Repl.by 2N758B	Cur.	24-34	118XM	WESY	none	431	TII	none	1040	CLE	19-61
12A308	GESE	74-50	38T1	FTFH	24-34	118XN	WESY	none	432	TII	none	1041	CLE	19-62
12A904	GESE	74-51	39N2	SSD	none	118XO	WESY	none	433	TII	none	1042	CLE	19-63
12E109	GESE	none	Repl.by 2N759B	Cur.	24-36	118XP	WESY	none	434	TII	none	1043	CLE	19-64
Repl.by D12E109	Cur.	39T1	FTFH	24-36	118XQ	WESY	none	435	TII	none	none	Repl.by 2N2410	Cur.	19-106
12G301	GESE	74-52	40N2	SSD	none	118XR	WESY	none	436	TII	none	1400	CLE	67-100
12G302	GESE	74-53	Repl.by 2N760B	Cur.	none	118XS	WESY	none	437	TII	none	1401-1220	WESY	68-39
12H301	GESE	74-54	41N2	SSD	none	118XT	WESY	none	438	TII	none	1401-1225	WESY	67-101
12H302	GESE	74-55	Repl.by 2N929A	Cur.	none	118XU	WESY	none	439	TII	none	1401-1415	WESY	68-40
12H303	GESE	74-56	42N2	SSD	none	118XV	WESY	none	440	TII	none	1401-1415	WESY	67-102
12J301	GESE	74-57	Repl.by 2N930A	Cur.	40-90	118XW	WESY	none	441	TII	none	1401-1420	WESY	68-41
12J302	GESE	74-58	64EPA	RADF	40-91	118XZ	WESY	none	442	TII	none	1401-1425	WESY	68-42
12J303	GESE	74-59	64EPB	RADF	28-48	118YA	WESY	31-97	443	TII	none	1410	CLE	20-2
12T1	FTFH	52-5	64T1	SESC	28-54	118YB	WESY	31-98	444	TII	52-11	1441-0415	WESY	68-44
12T2	FTFH	40-74	65T1	SESC	28-54	118YC	WESY	31-99	445	TII	52-12	1441-0420	WESY	68-45
12X010	GESE	none	78EP	RADF	46-6	118YD	WESY	31-100	446	TII	52-13	1441-0615	WESY	68-47
Repl.by D12X010	Cur.	82T1	SESC	52-10	118YE	WESY	31-101	447	TII	52-14	1441-0620	WESY	68-48	
12X011	GESE	none	96EP	RADF	44-84	118YF	WESY	31-102	448	TII	52-15	1441-0625	WESY	68-49
Repl.by D12X011	Cur.	97EPA	RADF	45-104	118YG	WESY	31-103	449	TII	52-16	1441-0815	WESY	68-38	
12X012	GESE	none	97EPA	RADF	72-38	118YH	WESY	31-104	450	TII	52-17	1441-0820	WESY	68-50
Repl.by D12X012	Cur.	97EPB	RADF	45-105	118YI	WESY	31-105	451	TII	52-18	1441-0825	WESY	68-51	
12X013	GESE	none	101A	MOTA	72-39	118YJ	WESY	31-106	452	TII	52-19	1441-1015	WESY	68-52
Repl.by D12X013	Cur.	101B	MOTA	28-107	118YK	WESY	31-107	453	TII	52-20	1441-1020	WESY	68-53	
12X014	GESE	none	101B	MOTA	72-19	118YL	WESY	31-108	454	TII	52-21	1441-1025	WESY	68-54
Repl.by D12X014	Cur.	101M	MOTA	28-108	118YM	WESY	31-109	455	TII	52-22	1441-1215	WESY	68-55	
12X015	GESE	none	103EP	RADF	72-20	118YN	WESY	31-110	456	TII	52-23	1441-1220	WESY	68-56
Repl.by D12X015	Cur.	107A	MOTA	40-92	118YO	WESY	31-111	457	TII	52-24	1441-1225	WESY	68-57	
12X043	GESE	none	107B	MOTA	29-5	118YP	WESY	31-112	458	TII	52-25	1441-1415	WESY	68-58
Repl.by D12X043	Cur.	107M	MOTA	29-6	118YQ	WESY	31-113	459	TII	52-26	1441-1420	WESY	68-59	
12X047	GESE	none	107N	MOTA	29-7	118YR	WESY	31-114	460	TII	52-27	1441-1425	WESY	68-60
Repl.by D12X047	Cur.	109UA	WESY	none	118YS	WESY	31-115	461	TII	52-28	1441-1425	WESY	68-61	
12X070	GESE	none	Repl.by 2N2739	Cur.	127T1	118YT	WESY	31-116	462	TII	52-29	1441-1425	WESY	68-62
Repl.by D12X070	Cur.	109UB	WESY	130-04	118YU	WESY	31-117	463	TII	52-30	1441-1425	WESY	68-63	
12X084A	GESE	none	109UC	WESY	130-06	118YV	WESY	31-118	464	TII	52-31	1441-1425	WESY	68-64
Repl.by D12X084A	Cur.	109UD	WESY	130-08	118YW	WESY	31-119	465	TII	52-32	1441-1425	WESY	68-65	
13K3	SSD	none	109UE	WESY	130-10	118YX	WESY	31-120	466	TII	52-33	1441-1425	WESY	68-66
Repl.by 3N72	Cur.	109UF	WESY	146T1	118YY	WESY	31-121	467	TII	52-34	1441-1425	WESY	68-67	
13T1	FTFH	52-6	109UG	WESY	147T1	118YZ	WESY	31-122	468	TII	52-35	1441-1425	WESY	68-68
14A502	GESE	none	109UH	WESY	147T1	118ZA	WESY	31-123	469	TII	52-36	1441-1425	WESY	68-69
Repl.by L14A502	Cur.	109UI	WESY	151-05	118ZB	WESY	31-124	470	TII	52-37	1441-1425	WESY	68-70	
14T1	FTFH	52-7	109UJ	WESY	151-07	118ZC	WESY	31-125	471	TII	52-38	1441-1425	WESY	68-71
15T1	FTFH	52-8	109UK	WESY	151-09	118ZD	WESY	31-126	472	TII	52-39	1441-1425	WESY	68-72
16E4	GESE	none	109UL	WESY	151-07	118ZE	WESY	31-127	473	TII	52-40	1441-1425	WESY	68-73
Repl.by 2N3858	Cur.	109UM	WESY	151-09	118ZF	WESY	31-128	474	TII	52-41	1441-1425	WESY	68-74	
16E5	GESE	none	109UN	WESY	152-07	118ZG	WESY	31-129	475	TII	52-42	1441-1425	WESY	68-75
Repl.by 2N3859	Cur.	109UO	WESY	152-09	118ZH	WESY	31-130	476	TII	52-43	1441-1425	WESY	68-76	
16E6	GESE	none	109UP	WESY	153-05	118ZJ	WESY	31-131	477	TII	52-44	1441-1425	WESY	68-77
Repl.by 2N3860	Cur.	109UQ	WESY	153-07	118ZK	WESY	31-132	478	TII	52-45	1441-1425	WESY	68-78	
16G2	GESE	none	109UR	WESY	153-09	118ZL	WESY	31-133	479	TII	52-46	1441-1425	WESY	68-79
Repl.by 2N3863	Cur.	109US	WESY	153-09	118ZM	WESY	31-134	480	TII	52-47	1441-1425	WESY	68-80	
16J1	GESE	43-32	109XT	WESY	154-05	118ZN	WESY	31-135	481	TII	52-48	1441-1425	WESY	68-81
16J2	GESE	43-33	Repl.by 2N2751	Cur.	154-07	118ZO	WESY	31-136	482	TII	52-49	1441-1425	WESY	68-82
16K1	GESE	43-34	109XB	WESY	154-09	118ZP	WESY	31-137	483	TII	52-50	1441-1425	WESY	68-83
16K2	GESE	43-35	Repl.by 2N2752	Cur.	155-04	118ZQ	WESY	31-138	484	TII	52-51	1441-1425	WESY	68-84
16K3	GESE	43-36	109XC	WESY	155-06	118ZR	WESY	31-139	485	TII	52-52	1441-1425	WESY	68-85
16L2	GESE	42-96	Repl.by 2N2753	Cur.	155-08	118ZS	WESY	31-140	486	TII	52-53	1441-1425	WESY	68-86
16L3	GESE	42-97	109XD	WESY	155-10	118ZT	WESY	31-141	487	TII	52-54	1441-1425	WESY	68-87
16L4	GESE	42-100	Repl.by 2N2754	Cur.	161T2	118ZU	WESY	31-142	488	TII	52-55	1441-1425	WESY	68-88
16L5	GESE	42-103	115UA	WESY	162T2	118ZV	WESY	31-143	489	TII	52-56	1441-1425	WESY	68-89
16L22	GESE	42-107	Repl.by 2N1809	Cur.	162T2	118ZW	WESY	31-144	490	TII	52-57	1441-1425	WESY	68-90
16L23	GESE	42-101	115UB	WESY	163-05	118ZX	WESY	31-145	491	TII	52-58	1441-1425	WESY	68-91
16L24	GESE	42-104	Repl.by 2N1810	Cur.	163-07	118ZY	WESY	31-146	492	TII	52-59	1441-1425	WESY	68-92
16L25	GESE	42-109	115UC	WESY	163-09	118ZZ	WESY	31-147	493	TII	52-60	1441-1425	WESY	68-93
16L42	GESE	42-98	Repl.by 2N1811	Cur.	164-05	118A	WESY	31-148	494	TII	52-61	1441-1425	WESY	68-94
16L43	GESE	42-98	115UD	WESY	164-07	118B	WESY	31-149	495	TII	52-62	1441-1425	WESY	68-95
Repl.by 2N3855	Cur.	115UE	WESY	164-09	118C	WESY	31-150	496	TII	52-63	1441-1425	WESY	68-96	
16L44	GESE	none	Repl.by 2N1812	Cur.	164-09	118D	WESY	31-151	497	T				

1. TYPE No. CROSS INDEX

IN TYPE NUMBER SEQUENCE

TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line
1763-0425	WESY	66-81	40427	RCA	61-80	AC155	AEIL	30-13	ARA25N	ADV	none	B178	BEN	53-98
1763-0615	WESY	66-82	40444	RCA	66-48			68-65	Repl.by 2N626	Obs.	none	B179	BEN	53-99
1763-0625	WESY	66-83	40460	RCA	51-15	AC156	AEIL	30-32	ARA25N-H	ADV	none	B1013	BEN	none
1763-0815	WESY	66-84			75-105			68-72	Repl.by 2N1019	Obs.	none	Repl.by 2N2282	Cur.	
1763-0825	WESY	66-85	40464	RCA	65-90	AC157	AEIL	34-51	ARA25P	ADV	none	B1013A	BEN	none
1763-1015	WESY	66-86	40465	RCA	65-91			68-83	Repl.by 2N676	Obs.	none	Repl.by 2N2283	Cur.	
1763-1025	WESY	66-87	40466	RCA	65-92	AC161	CSF	28-7	ARA25P-H	ADV	none	B1013B	BEN	none
1763-1215	WESY	66-88	40469	RCA	42-36				Repl.by 2N1020	Obs.	none	Repl.by 2N2284	Cur.	
1763-1225	WESY	66-89	40470	RCA	42-34	AC164	MISLB	19-34	ARA46P	ADV	76-68	B1017	BEN	54-15
1763-1415	WESY	66-90	40471	RCA	42-35	AC165	AEIL	30-38	ASA2	AML	74-65	B1022	BEN	31-41
1763-1425	WESY	66-91	40546	RCA	62-99			68-74	ASA31	AML	76-69	B1110	BEN	55-103
1763-1615	WESY	66-92	40547	RCA	62-100	AC166	AEIL	30-39	ASA51	AML	76-70	B1151	BEN	55-55
1763-1625	WESY	66-93	51009	GME	73-28			68-75	ASA1000	AML	74-66	B1151A	BEN	55-56
1763-1815	WESY	66-94	A250Q	SELB	76-66	AC166/AC168	AEIL	74-15	ASA1001	AML	74-67	B1151B	BEN	55-57
1768-0415	WESY	60-24	A104	APX	44-87	AC167	AEIL	30-40	ASA1003	AML	76-71	B1152	BEN	55-58
1768-0420	WESY	60-25	A106	APX	44-88			68-76	ASA1004	AML	76-72	B1152A	BEN	55-59
1768-0425	WESY	60-26	A108	APX	44-89			34-52	ASY12	BRUB	31-10	B1152B	BEN	55-60
1768-0615	WESY	60-27	A110	APX	44-90			68-84		INTG		B1154	BEN	31-95
1768-0625	WESY	60-28	A111	APX	44-91	AC169	AEIL	20-44	ASY12-1	BRUB	31-79	B1274	BEN	none
1768-0815	WESY	60-29	A116	APX	44-92	AC177	AEIL	30-41	ASY12-2	BRUB	31-80	Repl.by 2N2291	Cur.	
1768-0825	WESY	60-30	A133	APX	45-20			68-77	ASY13	BRUB	31-11	B1274A	BEN	none
1768-1015	WESY	60-31	A151	APX	39-34	ACY27	INTG	30-8		INTG		Repl.by 2N2292	Cur.	
1768-1025	WESY	60-32	A152	APX	39-35		STCB		ASY13-1	BRUB	31-81	B1274B	BEN	none
1768-1215	WESY	60-33	A153	APX	39-36	ACY28	TIIB	30-9	ASY13-2	BRUB	31-82	Repl.by 2N2293	Cur.	
1768-1225	WESY	60-34	A157	APX	45-55	ACY29	TIIB	30-20	ASY14	BRUB	21-49	B1368A	BEN	none
1768-1415	WESY	60-35	A157C	APX	45-59	ACY30	TIIB	30-33		INTG	68-66	Repl.by 2N2638	Cur.	
1768-1425	WESY	60-36	A158	APX	45-56	ACY31	TIIB	30-10	ASY14-1	BRUB	25-53	B1368B	BEN	56-63
1768-1615	WESY	66-95	A159	APX	45-70	ACY34	INTG	29-88	ASY14-2	BRUB	25-54	B1368C	BEN	56-64
1768-1625	WESY	66-96	A170	APX	38-79		STCB		ASY14-3	BRUB	25-55	B1368D	BEN	none
1768-1815	WESY	66-97	A171	APX	38-86	ACY35	INTG	29-89	ASY49	INTG	28-30	Repl.by 2N2638	Cur.	
1771-0440	WESY	60-43	A194	APX	51-16		STCB			STCB		B1368E	BEN	none
1771-0450	WESY	60-44	A195	APX	51-17	ACY36	INTG	29-90	ASY50	INTG	29-94	Repl.by 2N2637	Cur.	
1771-0460	WESY	60-45	A196	APX	51-18		STCB			STCB		B1368F	BEN	none
1771-0640	WESY	60-46	A197	APX	51-25	ADY18	AEG	55-102	ASY51	INTG	27-75	Repl.by 2N2636	Cur.	
1771-0650	WESY	60-47			68-2	ADY22	INTG	56-83		STCB		B1913	BEN	54-81
1771-0660	WESY	60-48	A198	APX	51-26		STCB		ASY52	INTG	28-31	B1914	BEN	53-41
1771-0840	WESY	60-49			68-3	ADY23	INTG	56-84		STCB		B3045	BEN	65-93
1771-0850	WESY	60-50	A199	APX	51-27		STCB		ASY53	STCB	33-81	B3046	BEN	65-94
1771-0860	WESY	60-51			68-4	ADY24	INTG	56-85	ASY54	INTG	30-63	B3141	BEN	none
1771-1040	WESY	60-52	A200	APX	61-81		STCB			STCB		Repl.by 2N3619	Cur.	
1771-1050	WESY	60-53	A213	APX	61-52	ADY25	INTG	54-80	ASY55	INTG	30-80	B3142	BEN	none
1771-1060	WESY	60-54	A323	APX	45-21		STCB			STCB		Repl.by 2N3620	Cur.	
1771-1240	WESY	60-55	A324	APX	45-22	AF101	TFKG	18-91	ASY56	INTG	30-42	B3143	BEN	none
1771-1250	WESY	60-56	A344	APX	45-71	AF111	INTG	20-99		STCB		Repl.by 2N3621	Cur.	
1771-1260	WESY	60-57			71-81	AF112	INTG	20-100	ASY57	INTG	30-54	B3144	BEN	none
1771-1440	WESY	60-58	A345	APX	45-72	AF113	INTG	20-101		STCB		Repl.by 2N3622	Cur.	
1771-1450	WESY	60-59			71-82	AF128	TFKG	18-20	ASY58	INTG	30-69	B3145	BEN	none
1771-1460	WESY	60-60	A346	APX	45-73	AF129	BRUB	20-21		STCB		Repl.by 2N3623	Cur.	
1771-1640	WESY	60-61			71-83		INTG		ASY59	INTG	30-85	B3146	BEN	none
1776-0450	WESY	60-37	A415	APX	none	AF130	BRUB	20-22		STCB		Repl.by 2N3624	Cur.	
1776-0650	WESY	60-38	Repl.by 2N4433	Cur.			INTG		ASY60	STCB	73-10	B3147	BEN	none
1776-0850	WESY	60-39	A431	APX	44-83	AF131	BRUB	20-19	ASY61	STCB	33-91	Repl.by 2N3625	Cur.	
1776-1050	WESY	60-40			76-67		INTG		ASY61/TK33	SIHG	24-92	B3148	BEN	none
1776-1250	WESY	60-41	A451	APX	40-93	AF132	BRUB	20-16		STCB		Repl.by 2N3626	Cur.	
1776-1450	WESY	60-42	A454	APX	40-96		INTG		ASY62	SIHG	33-97	B3149	BEN	none
1859	WEC	none	A455	APX	40-95	AF133	BRUB	20-20		STCB		Repl.by 2N3627	Cur.	
1893	Repl.by 2N28	Obs.	A466	APX	41-105		INTG		ASY63	INTG	29-82	B3161	BEN	none
2074	Repl.by 2N21	Obs.	A472	APX	43-79	AF182	CSF	26-50		STCB	68-25	Repl.by 2N3628	Cur.	
2075	Repl.by 2N463	Obs.	A489	APX	43-64		MISI		ASY64	STCB	73-11	B3162	BEN	none
2081	Repl.by 2N528	Obs.	A515	APX	62-43	AF210	TFKG	28-82	ASY66	STCB	73-12	Repl.by 2N3629	Cur.	
2082	Repl.by 2N1841	Obs.	A520	APX	74-60	AMF101	AMF	65-1	ASY72	STCB	33-95	B3163	BEN	none
2082	Repl.by 2N1675	Obs.	A521	APX	74-61	AMF102	AMF	65-2	ASY82	AEIL	30-23	Repl.by 2N3630	Cur.	
2097	Repl.by 2N559	Obs.	A522	APX	64-8	AMF103	AMF	65-3			68-67	B3456	BEN	65-95
2141	Repl.by 2N1645	Obs.	A523	APX	64-9	AMF104	AMF	64-73	ASY83	AEIL	30-47	B3458	BEN	61-104
3604	LCTF	33-19	A643/L.S	none	63-28	AMF105	AMF	64-74			68-87	B3459	BEN	65-96
3607	LCTF	33-20	A644/L.S	none	42-91	AMF106	AMF	64-75	ASY84	AEIL	30-24	B3459A	BEN	65-97
3609	LCTF	33-22	A645/L.S	none	74-62	AMF107	AMF	65-4			68-68	B3460	BEN	none
3746	RCA	23-79	A747	APX	42-92	AMF108	AMF	65-5	ASY85	AEIL	30-48	Repl.by 2N4225	Cur.	
3907	RCAS	28-62	A747C	APX	74-63	AMF109	AMF	65-6			68-88	B3461	BEN	none
11005	GME	73-26	A748	APX	42-93	AMF110	AMF	65-7	ASY86	THOB	34-49	Repl.by 2N4226	Cur.	
31004	GME	73-27	A749	APX	74-64	AMF111	AMF	65-8			68-79	B3566	BEN	64-15
40005	RCA	26-46	A757	APX	42-88	AMF112	AMF	65-9	ASY87	THOB	34-53	B3567	BEN	64-16
40006	RCA	26-48	A758A	APX	42-89	AMF113	AMF	65-10			68-100	B3568	BEN	64-17
40053	RCA	26-49	A758B	APX	42-90	AMF114	AMF	65-11	ASY88	THOB	34-50	B3569	BEN	64-18
40217	Repl.by 2N3053	Cur.	A759A	APX	45-57	AMF115	AMF	64-76			68-80	B3560	BEN	64-19
40218	RCA	45-46	A759B	APX	43-76	AMF116	AMF	64-77	ASY89	THOB	34-54	B3561	BEN	64-20
40219	RCA	46-68	A1377	APX	43-77	AMF117	AMF	64-78			68-101	B3562	BEN	64-21
40220	RCA	45-95	A1378	APX	45-58	AMF117A	AMF	64-79			68-69	B3563	BEN	64-22
40221	RCA	72-28	A1380	APX	45-74	AMF118	AMF	64-80	ASZ10	TFKG	68-44	B3564	BEN	64-23
40222	RCA	46-69	A1381	APX	43-77	AMF118A	AMF	64-81			68-45	B3565	BEN	64-24
40255	RCA	62-41	A1409	APX	38-1	AMF119	AMF	64-82	ASZ11	PHIN	28-103	B3566	BEN	64-25
40256	RCA	62-42	A1460	APX	38-2	AMF119A	AMF	64-83	ASZ12	PHIN	28-107	B3567	BEN	64-26
40264	RCA	none	A1462	APX	38-3									

1. TYPE No. CROSS INDEX

TYPE No.				IN TYPE NUMBER SEQUENCE							
TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line
BB58	SOIF	75-86	BLY30	SGSI	83-48	C850	CRY	73-49	CDQ10058	CDC	none
BB5C	SOIF	75-87				C851	CRY	73-50	Repl.by 2N552	Cur.	none
BC111	RADF	39-107	BLY57	RADF	62-46	C852	CRY	73-51	CDQ10057	CDC	none
BC150	AEIL	43-9	BLY86	SGSI	62-87	C853	CRY	73-52	Repl.by 2N1116	Cur.	none
BC151	AEIL	43-10	BPY62	SHWG	75-28	C860	CRY	none	CDQ10058	CDC	none
BC152	AEIL	46-51	BR100A	BEN	62-47	Repl.by 2N3084	Cur.	none	Repl.by 2N1117	Cur.	none
BC167	none	42-31				C861	CRY	none	CDT1349	CLE	none
BC168	none	42-32	BR100C	BEN	64-31	Repl.by 2N3085	Cur.	none	Repl.by 2N2063	Cur.	none
BC169	none	42-33				C864	CRY	none	CDT1349A	CLE	none
BC170	INTG	42-102	BR100E	BEN	64-55	Repl.by 2N3086	Cur.	none	Repl.by 2N2064	Cur.	none
BC174	INTG	42-105				C865	CRY	none	CDT1350	CLE	none
BC175	AEIL	48-16	BR100F	BEN	64-32	Repl.by 2N3087	Cur.	none	Repl.by 2N2065	Cur.	none
BC180	AEIL	46-52				C866	CRY	none	CDT1350A	CLE	none
BC250	INTG	35-82	BR101A	BEN	62-48	Repl.by 2N3088	Cur.	none	Repl.by 2N2066	Cur.	none
BC251	INTG	35-83				C867	CRY	none	CG1	NAS	76-110
BC252	INTG	35-84	BR101C	BEN	64-33	Repl.by 2N3089	Cur.	none	CG1	CRY	none
BC253	INTG	35-85				C9001	CRY	none	Repl.by 3N102	Cur.	none
BC261	INTG	36-66	BR101E	BEN	64-56	Repl.by 2N2944	Cur.	none	CG2	CRY	none
BC262	INTG	36-67				C9002	CRY	none	Repl.by 3N103	Cur.	none
BC263	INTG	36-68	BR101F	BEN	64-34	Repl.by 2N2945	Cur.	none	CG3	CRY	none
BC429	TAGS	43-78				C9003	CRY	none	Repl.by 3N104	Cur.	none
BC1073	BEN	none	BR200A	BEN	64-57	Repl.by 2N2946	Cur.	none	CG4	CRY	none
Repl.by 2N2288	Cur.					77-10	CA3018	RCA	76-74	Repl.by 3N101	Cur.
BC1073A	BEN	none	BR200B	BEN	64-35	CA3036	RCA	76-75	CG5	CRY	none
Repl.by 2N2289	Cur.					77-11	CB1F4	HON	none	Repl.by 3N100	Cur.
BC1073B	BEN	none	BR201A	BEN	64-58	Repl.by 2N1502	Cur.	none	CK4	RAYN	23-34
Repl.by 2N2290	Cur.					77-12	CD91	CRY	37-31	CP400	SGSI
BC1274	BEN	none	BR201B	BEN	64-36				74-71	CK4A	RAYN
Repl.by 2N2294	Cur.					77-13	CD92	CRY	37-32		
BC1274A	BEN	none	BSC1015	BEN	67-34				74-72	CK13	RAYN
Repl.by 2N2295	Cur.		BSC1015A	BEN	67-35	CD93	CRY	37-33	CK13A	RAYN	23-4
BC1274B	BEN	none	BSC1015B	BEN	67-36				74-73	CK14	RAYN
Repl.by 2N2296	Cur.		BSC1016	BEN	67-37	CD94	CRY	37-34	CK14A	RAYN	23-21
BC2290	BEN	none	BSC1016A	BEN	67-38				74-74	CK16	RAYN
Repl.by 2N2290	Cur.		BSC1016B	BEN	67-39	CD95	CRY	37-35	CK16A	RAYN	23-28
BCY22	TAGS	37-6	BSV38A	none	51-19				74-75	CK17	RAYN
BCY49	MULB	36-10	BSV50E	SGSI	72-95	CD96	CRY	37-36	CK17A	RAYN	22-68
BCY50	INTG	42-59	BSV50F	SGSI	72-96				74-76	CK22	RAYN
	SELG		BSV50G	SGSI	72-97	CD97	CRY	37-37	CK22A	RAYN	22-96
BCY501	SELG	44-21	BSW78	INTG	43-36				74-77	CK22B	RAYN
BCY51	INTG	45-18				CD98	CRY	37-38	CK22C	RAYN	21-46
	SELG		BSW79	INTG	72-69				74-78	CK25	RAYN
BCY511	SELG	44-19	BSW80	INTG	43-39	CD912	CRY	37-39	CK25A	RAYN	23-11
BDY15	INTG	62-85							74-79	CK26	RAYN
BDY16	INTG	62-86	BSW81	INTG	35-107	CD922	CRY	37-40	CK26A	RAYN	23-17
BDY20	MULB	none							74-80	CK26	RAYN
	PHIC		BSX19%	VALG	72-41	CD932	CRY	37-41	74-81	CK26A	RAYN
	RADF		BSX19Ø	none	46-79				74-82	CK27	RAYN
Repl.by 2N3055	Cur.					CD942	CRY	37-42	74-83	CK27A	RAYN
BF115	none	40-94	BSX20%	VALG	72-70				74-84	CK28	RAYN
BF1151	none	42-10	BSX20Ø	none	46-92	CD952	CRY	37-43	74-85	CK28A	RAYN
BF169	CSF	45-48							74-86	CK28A	RAYN
	MISI		BSX31	SGSI	75-106	CD962	CRY	37-44	74-87	CK28A	RAYN
BF187	CSF	42-12	BSY20	INTG	none				74-88	CK28A	RAYN
BF188	MISI	43-51	Repl.by 2N706B	Obs.	none	CD972	CRY	37-45	74-89	CK28A	RAYN
BF189	CSF	42-11	BSY22	INTG	none				74-90	CK28A	RAYN
	MISI		Repl.by 2N916	Obs.	none	CD982	CRY	37-46	74-91	CK28A	RAYN
	CSF		BSY23	INTG	none				74-92	CK28A	RAYN
	MISI		Repl.by 2N834	Obs.	none				74-93	CK28A	RAYN
BF216	AEIL	43-14	BSY32	STCB	40-31	CDQ10001	CDC	41-13	CK64	RAYN	22-75
BF217	AEIL	43-24				CDQ10002	CDC	41-14	CK64A	RAYN	22-76
BF218	AEIL	43-16	BSY33	STCB	40-32	CDQ10003	CDC	41-25	CK64B	RAYN	22-77
BF219	AEIL	40-65				CDQ10004	CDC	47-76	CK64C	RAYN	22-78
BF220	AEIL	40-66	BSY36	STCB	40-45	CDQ10005	CDC	41-33	CK65	RAYN	22-86
BFW67	SGSI	49-31				CDQ10006	CDC	47-78	CK65A	RAYN	22-87
BFX10	SGSI	74-68	BSY37	STCB	40-46	CDQ10007	CDC	47-78	CK65B	RAYN	22-88
BFX14	MINA	49-64				CDQ10008	CDC	none	CK65C	RAYN	22-89
BFY15	STCB	48-57	BSY42	STCB	74-69	Repl.by 2N335	Cur.	47-80	CK66	RAYN	22-97
BFY16	STCB	70-81	BSY43	STCB	74-70	CDQ10009	CDC	41-42	CK66A	RAYN	22-98
	STCB	48-60	BSY44	STCB	40-33	CDQ10010	CDC	47-82	CK66B	RAYN	22-100
BFY21	STCB	71-3	BSY48	STCB	71-14	CDQ10011	CDC	49-71	CK67	RAYN	22-106
BFY22	BRUB	76-73				CDQ10012	CDC	49-72	CK67A	RAYN	22-107
	INTG	39-30	BSY50	STCB	40-34	CDQ10013	CDC	none	CK67B	RAYN	22-108
BFY23	BRUB	39-31	BUY16	RADF	45-8	Repl.by 2N341	Cur.	49-73	CK67C	RAYN	22-109
BFY23A	INTG	39-37				CDQ10014	CDC	49-73	CK86	RAYN	21-70
BFY24	INTG	39-32	BUY17	SGSI	70-85	CDQ10015	CDC	none	CK86	RAYN	21-106
BFY25	INTG	48-79	C63	FSC	46-56	Repl.by 2N343	Cur.	42-75	CK258	RAYN	53-42
BFY28	INTG	71-15	C64	SGSI	46-57	CDQ10016	CDC	42-76	CK261	RAYN	33-62
BFY29	SELB	39-33	C101	CRY	36-12	CDQ10017	CDC	42-77	CK262	RAYN	33-63
BFY30	INTG	39-38	C102	CRY	36-16	CDQ10018	CDC	42-78	CK273	RAYN	73-3
	STCB		C103	CRY	36-16	CDQ10019	CDC	42-79	CK277	RAYN	73-4
	STCB		Repl.by 2N1642	Cur.	36-15	CDQ10020	CDC	42-80	CK311	RAYN	53-44
BFY37	none	41-97	C112	CRY	36-15	CDQ10021	CDC	42-81	CK312	RAYN	53-45
BFY371	SELG	41-98	C118	CRY	36-18	CDQ10022	CDC	42-82	CK313	RAYN	53-46
BFY391	none	44-45	C119	CRY	38-19	CDQ10023	CDC	42-83	CK314	RAYN	53-47
BFY391	SELG	44-46	C301A	SGSI	73-13	CDQ10024	CDC	none	CK315	RAYN	53-48
BFY501	SELG	44-22	C434	SGSI	63-85	CDQ10025	CDC	none	CK398	RAYN	43-81
BFY511	SELG	44-20				CDQ10026	CDC	42-84	CK411	RAYN	53-49
BFY55	APX	none	C810	CRY	73-29	Repl.by 2N480	Cur.	42-85	CK412	RAYN	53-50
	PHIC		C811	CRY	73-30	CDQ10027	CDC	none	CK413	RAYN	53-51
	RADF		C812	CRY	73-31	CDQ10028	CDC	none	CK414	RAYN	53-52
Repl.by 2N2297	Cur.		C813	CRY	73-32	Repl.by 2N1704	Cur.	46-102	CK415	RAYN	53-53
BFY68	APX	none	C814	CRY	73-33	CDQ10033	CDC	49-74	CK419	RAYN	43-96
	PHIC		C815	CRY	73-34	CDQ10034	CDC	49-75	CK420	RAYN	43-97
	PHIC		C820	CRY	73-35	CDQ10035	CDC	42-60	CK421	RAYN	43-98
Repl.by 2N1711	Cur.		C821	CRY	73-36	CDQ10036	CDC	42-61	CK422	RAYN	43-99
BF210	ASMB	35-5	C822	CRY	73-37	CDQ10037	CDC	49-76	CK474	RAYN	43-100
BLY10	STCB	62-101	C823	CRY	73-38	CDQ10044	CDC	49-78	CK475	RAYN	43-101
	STCB	70-62	C824	CRY	73-39	CDQ10045	CDC	49-79	CK476	RAYN	43-102
BLY11	STCB	62-102	C825	CRY	73-40	CDQ10046	CDC	49-82	CK477	RAYN	43-103
	STCB	71-4	C831	CRY	73-41	CDQ10047	CDC	49-83	CK751	RAYN	27-94
BLY15	BRUB	62-103	C832	CRY	73-42	CDQ10048	CDC	49-82	CK754	RAYN	24-82
	STCB		C833	CRY	73-43	CDQ10051	CDC	none	Repl.by 2N111	Cur.	none
BLY16	INTG	62-84	C840	CRY	73-44	Repl.by 2N547	Cur.	none	CK759A	RAYN	none
BLY25	SGSI	64-2	C841	CRY	73-45	CDQ10052	CDC	none	Repl.by 2N111A	Cur.	none
BLY26	SGSI	64-3	C842	CRY	73-46	Repl.by 2N548	Cur.	none	CK760	RAYN	none
BLY29	SGSI	63-45	C843	CRY	73-47	CDQ10053	CDC	none	Repl.by 2N112	Cur.	none
	SGSI	70-14	C844	CRY	73-48	Repl.by 2N549	Cur.	none	CK760A	RAYN	none
						CDQ10054	CDC	none	Repl.by 2N112A	Cur.	none
						Repl.by 2N550	Cur.	none	CK761	RAYN	none
						CDQ10055	CDC	none	Repl.by 2N113	Cur.	none
						Repl.by 2N551	Cur.	none	CK762	RAYN	none
									Repl.by 2N114	Cur.	none

1. TYPE No. CROSS INDEX

IN TYPE NUMBER SEQUENCE

TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line
CTP1109	CLE	none	D10H553-2,3	GESY	39-83	DP1005	AML	50-28	FT24A	AMF	85-38	FT2483	FSC	none
Repl.by 2N2062 Cur.			D11B551-2,3	GESY	39-96			74-93	FE100	AML	none	Repl.by 2N2483 Cur.	FSC	none
CTP1111	CLE	54-88	D11B551-2,3	none	39-97	DP1006	AML	50-27	Repl.by 2N3452 Cur.	AML	none	FT2484	FSC	none
	INTG		D11B552-2,3	none	39-108			74-94	FE100A	AML	none	Repl.by 2N2484 Cur.	FSC	none
CTP1112	CLE	55-3	D11B554-2,3	none	40-9	DP1007	AML	50-28	Repl.by 2N3455 Cur.	AML	none	FT6200	FSC	none
CTP1117	CLE	55-4	D11B555-2,3	GESY	40-10			74-95	FE102	AML	none	Repl.by 2N1978 Cur.	SGSI	42-22
CTP1119	CLE	52-21	D11B556-2,3	GESY	39-109	DP1008	AML	50-29	Repl.by 2N3453 Cur.	AML	none	FV914	SGSI	72-3
CTP1127	CLE	55-5	D11B560-2,3	none	39-110			74-96	FE102A	AML	none	FV918	SGSI	42-27
CTP1133	CLE	55-6	D11B1052	GESY	40-19	DP1009	AML	50-30	Repl.by 2N3456 Cur.	AML	none	FV2369A	SGSI	42-25
CTP1135	CLE	55-7	D11B1055	GESY	40-20			74-97	FE104	AML	none	FV2484	SGSI	42-15
CTP1136	CLE	66-37	D11C1B1	GESY	61-53	DP1010	AML	50-31	Repl.by 2N3454 Cur.	AML	none	FV2894	SGSI	35-81
CTP1137	CLE	55-8	D11C1F1	GESY	61-8			74-98	FE104A	AML	none	FV3014	SGSI	72-75
CTP1265	CLE	55-9	D11C3B1	GESY	61-54	DPT200	TRW	73-55	Repl.by 2N3457 Cur.	AML	none	FV3299	SGSI	71-87
CTP1266	CLE	55-10	D11C3F1	GESY	61-9	DPT201	TRW	73-56	FE200	AML	none	FV3300	SGSI	42-17
CTP1296	CLE	55-11	D11C5B1	GESY	61-55	DPT657	PSI	none	Repl.by 2N3066 Cur.	AML	none	FE204	AML	71-32
CTP1297	CLE	55-12	D11C5F1	GESY	61-10	Repl.by 2N2887 Cur.		63-3	FE202	AML	none	Repl.by 2N3067 Cur.	AML	71-32
CTP1306	CLE	55-13	D11C7B1	GESY	61-56	DPT2600	TRW	64-59	Repl.by 2N3067 Cur.	AML	none	FE250	AML	73-57
CTP1307	CLE	55-14	D11C7F1	GESY	61-7	DT80	DEL	64-59	FE252	AML	73-58	FE254	AML	73-59
CTP1314	CLE	55-15	D11C10B1	GESY	61-57	Repl.by 2N1099 Cur.		64-60	FE300	AML	none	Repl.by 2N3069 Cur.	AML	70-105
CTP1320	CLE	19-73	D11C10F1	GESY	61-11	DT100	DEL	64-61	FE302	AML	none	FE302	AML	70-106
CTP1330	CLE	19-86	D11C11B1	GESY	61-58	Repl.by 2N1100 Cur.		64-62	FE304	AML	73-60	FE304	AML	35-73
CTP1340	CLE	19-90	D11C11F1	GESY	61-12	DT4110	BRDB	64-63	FE350	AML	73-61	FE352	AML	35-75
CTP1350	CLE	19-94	D11C201B20	GESY	61-59			64-63	FE354	AML	73-62	FE354	AML	none
CTP1360	CLE	19-96	D11C203B20	GESY	61-60	DT4111	BRDB	56-39	FE400	AML	56-39	FE400	AML	25-102
CTP1390	CLE	19-103	D11C205B20	GESY	61-61			56-79	Repl.by 2N3436 Cur.	AML	56-79	FE402	AML	31-104
CTP1400	CLE	19-109	D11C207B20	GESY	61-62	DT4112	BRDB	56-80	FE400A	AML	56-80	FE402	AML	26-2
CTP1410	CLE	20-3	D11C210B20	GESY	61-63			56-80	Repl.by 2N3458 Cur.	AML	56-80	FE402	AML	74-16
CTP1505	CLE	55-104	D11C211B20	GESY	61-64	DT4120	BRDB	56-81	FE401	AML	56-81	FE402A	AML	25-101
CTP1506	CLE	55-105	D11C551-2,3	GESY	40-1			56-84	Repl.by 2N3437 Cur.	AML	56-84	FE402A	AML	25-103
CTP1507	CLE	55-106	D11C553-2,3	GESY	40-2	DT4121	BRDB	67-12	FE402A	AML	67-12	FE402A	AML	25-48
CTP1509	CLE	55-107	D11C557-2,3	GESY	40-3			67-13	Repl.by 2N3459 Cur.	AML	67-13	FE404	AML	25-99
CTP1511	CLE	55-108	D11C702	GESY	45-35	DTG1000	DEL	67-8	FE404	AML	67-8	FE404	AML	52-48
CTP1512	CLE	55-109	D11C704	GESY	45-36	DTG1011	DEL	67-9	Repl.by 2N3438 Cur.	AML	67-9	FE404A	AML	33-26
CTP1513	CLE	55-110	D11C710	GESY	45-37	DTG1040	DEL	67-10	Repl.by 2N3460 Cur.	AML	67-10	FE404A	AML	27-101
CTP1514	CLE	56-1	D11C1051	GESY	40-4	DTG1110B	DEL	67-11	FE1800	AML	73-63	FE404A	AML	30-27
CTP1530	CLE	56-66	D11C1053	GESY	40-5			67-11	FE1800	AML	73-63	FE404A	AML	30-27
CTP1545	CLE	56-2	D11C1057	GESY	40-6	DTG1210A	DEL	67-12	FF400	CRY	51-12	FF400	CRY	30-18
	INTG		D11E404	GESY	49-43			67-13			51-12	FF400	CRY	27-102
CTP1550	CLE	none	D11E404	GESY	49-43	DTS400	DEL	67-13			51-12	FF400	CRY	30-18
Repl.by 2N2069 Obs.						Repl.by 2N2580 Cur.		67-13			51-12	FF400	CRY	27-103
CTP1551	CLE	none	D11E405	GESY	42-10	DTS3704	DEL	67-8			51-12	FF400	CRY	55-16
Repl.by 2N2070 Obs.						DTS3704A	DEL	67-9			51-12	FF400	CRY	55-17
CTP1553	CLE	56-3	D11E406	GESY	49-61	DTS3705A	DEL	67-10			51-12	FF400	CRY	55-18
	INTG					DTS3705B	DEL	67-11			51-12	FF400	CRY	55-19
CTP1728	CLE	none	D11E407	GESY	49-62	DTS3705B	DEL	67-12			51-12	FF400	CRY	55-20
Repl.by 2N1755 Cur.						DTS3705B	DEL	67-13			51-12	FF400	CRY	55-21
CTP1729	CLE	none	D16E7	GESY	42-110	DX57	HUG	67-13			51-12	FF400	CRY	55-22
Repl.by 2N1757 Cur.						Repl.by 2N3225 Cur.		67-13			51-12	FF400	CRY	55-23
CTP1730	CLE	none	D16G6	GESY	43-40	DX58	HUG	67-13			51-12	FF400	CRY	55-24
Repl.by 2N1758 Cur.						Repl.by 2N3224 Cur.		67-13			51-12	FF400	CRY	55-25
CTP1731	CLE	none	D16K1	GESY	43-55	DZ9A4	GESY	35-105			51-12	FF400	CRY	55-26
Repl.by 2N1759 Cur.						DZ9A5	GESY	35-106			51-12	FF400	CRY	55-27
CTP1732	CLE	none	D16K3	GESY	43-57	DZ9A5	GESY	35-106			51-12	FF400	CRY	55-28
Repl.by 2N1761 Cur.						ED322	SPR	35-106			51-12	FF400	CRY	55-29
CTP1733	CLE	none	D16P3	GESY	76-76	Repl.by 2N2795 Cur.		35-106			51-12	FF400	CRY	55-30
Repl.by 2N1762 Cur.						EIP	ROSG	75-29			51-12	FF400	CRY	55-31
CTP1735	CLE	none	D24A3391	GESY	42-106	EM500	EBAS	76-78			51-12	FF400	CRY	55-32
Repl.by 2N1756 Cur.						EM600	EBAS	76-79			51-12	FF400	CRY	55-33
CTP1736	CLE	none	D24A3391A	GESY	42-107	EM3110	EBAS	76-79			51-12	FF400	CRY	55-34
Repl.by 2N1760 Cur.						ES3111	EBAS	76-79			51-12	FF400	CRY	55-35
CTP1739	CLE	none	D24A3393	GESY	43-3	ES3112	EBAS	76-79			51-12	FF400	CRY	55-36
Repl.by 2N2067 Cur.						ES3113	EBAS	76-79			51-12	FF400	CRY	55-37
CTP3550	CLE	none	D24A3394	GESY	43-4	ES3114	EBAS	76-79			51-12	FF400	CRY	55-38
Repl.by 2N2071 Obs.						ES3115	EBAS	76-79			51-12	FF400	CRY	55-39
CTP3551	CLE	none	D24A3900	GESY	43-11	ES3116	EBAS	76-79			51-12	FF400	CRY	55-40
Repl.by 2N2072 Obs.						ES3117	EBAS	76-79			51-12	FF400	CRY	55-41
CYT1549	CLE	56-67	D26B1	GESY	39-43	ES3118	EBAS	76-79			51-12	FF400	CRY	55-42
CYT1550	CLE	56-68	D26B2	GESY	39-44	ES3119	EBAS	76-79			51-12	FF400	CRY	55-43
CYT1551	CLE	56-69	D26C1	GESY	39-45	ES3120	EBAS	76-79			51-12	FF400	CRY	55-44
CYT1552	CLE	56-70	D26C2	GESY	39-46	ES3121	EBAS	76-79			51-12	FF400	CRY	55-45
CYT1553	CLE	56-71	D26C3	GESY	39-47	ES3122	EBAS	76-79			51-12	FF400	CRY	55-46
CYT1554	CLE	56-72	D28B	GESY	49-70	ES3123	EBAS	76-79			51-12	FF400	CRY	55-47
CYT1555	CLE	56-73	D29A6	GESY	36-103	ES3124	EBAS	76-79			51-12	FF400	CRY	55-48
CYT1556	CLE	56-74	D29A7	GESY	36-104	ES3125	EBAS	76-79			51-12	FF400	CRY	55-49
CYT1557	CLE	56-75	D29A8	GESY	36-105	ES3126	EBAS	76-79			51-12	FF400	CRY	55-50
CYT1558	CLE	56-76	D29A9	GESY	36-106	ES3511	EBAS	76-79			51-12	FF400	CRY	55-51
CYT1559	CLE	56-77	D29A10	GESY	36-107	EW51	GECB	24-47			51-12	FF400	CRY	55-52
CYT1560	CLE	56-78	D29A11	GESY	36-108	EW53/1	GECB	21-12			51-12	FF400	CRY	55-53
D4022	GESY	40-102				EW53/2	GECB	21-13			51-12	FF400	CRY	55-54
D5E29	GESY	75-88	D30A1	GESY	35-7	EW58/1	GECB	21-13			51-12	FF400	CRY	55-55
D5E35	GESY	75-89	D30A2	GESY	35-8	EW58/2	GECB	21-9			51-12	FF400	CRY	55-56
D5E36	GESY	75-90	D30A3	GESY	35-9	EW59	GECB	21-10			51-12	FF400	CRY	55-57
D8C	GESY	67-86	D33K1	GESY	46-24	EW721	GECB	21-10			51-12	FF400	CRY	55-58
D7B1	GESY	62-49	D33K2	GESY	46-25	EW722								

1. TYPE No. CROSS INDEX

IN TYPE NUMBER SEQUENCE

TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	
GFT31/15	TKAD	26-69	GT83	GTC	27-88	HA5014	HAC	34-73	HF100	ROSG	19-2	LT5038	KSC	53-62	
GFT31/30	TKAD	26-70	GT87	GTC	27-80		HUG		HF200	ROSG	19-3	LT5039	KSC	53-63	
GFT31/80	TKAD	26-71	GT88	GTC	27-104	HA5016	HAC	34-70	HPA4202	HSDC	48-35	LT5042	KSC	53-64	
GFT32	NPC	26-72	GT100	BTHB	25-5		HUG	34-59	HT102	HSDC	48-61	LT5048	KSC	53-65	
	STCB						HUG	34-59	HT103	HSDC	48-62	LT5051	KSC	53-66	
GFT32/15	TKAD	26-73	GT109	GIC	none	HA5020	HAC	34-62	HVT200	MSC	48-2	LT5054	KSC	54-27	
GFT32/30	TKAD	26-74	RepI.by	2N109	Cur.	HA5021	HUG	34-60	HVT400	MSC	48-3	LT5057	KSC	54-31	
GFT32/60	TKAD	26-75	GT153	GTC	24-102		HUG	34-60	HVT800	MSC	48-5	LT5060	KSC	54-32	
GFT34	TKAD	26-76	GT210H	GTC	24-26	HA5022	HAC	34-64	HVT900	MSC	48-6	LT5066	KSC	54-33	
GFT34/15	TKAD	26-77	GT364	GIC	34-16		HUG	34-61	J480	TII	40-103	LT5069	KSC	54-34	
GFT34/30	TKAD	26-78	GT365	GIC	34-17	HA5023	HAC	34-61	J461	TII	40-104	LT5072	KSC	54-35	
GFT34/60	TKAD	26-79	GT366	GIC	34-18		HUG	34-63	J462	TII	40-105	LT5075	KSC	54-36	
GFT41	TKAD	20-23	GT759	GTC	24-89	HA5024	HAC	34-63	J463	TII	40-106	LT5078	KSC	54-37	
GFT42A	TKAD	20-17	GT759R	GTC	none		HUG	34-65	J464	TII	40-107	LT5081	KSC	54-38	
GFT42B	TKAD	20-15	RepI.by	GT1604	Cur.	HA5025	HAC	34-65	J465	TII	40-108	LT5084	KSC	54-39	
GFT43	TKAD	20-11	GT760	GTC	25-2		HUG	34-65	J466	TII	40-109	LT5087	KSC	54-40	
GFT43A	TKAD	20-4	RepI.by	GT1605	Cur.	HA5026	HAC	36-38	J503	TII	none	LT5090	KSC	55-19	
GFT43B	TKAD	20-8	RepI.by	GT1605	Cur.		HUG	36-39	RepI.by	2N1586	Cur.	none	LT5093	KSC	55-20
GFT44	TKAD	20-9	GT761	GTC	25-16	HA7206	HAC	38-5	J504	TII	none	LT5096	KSC	55-21	
GFT44/15E	TKAD	20-5	GT761R	GTC	none	HA7207	HAC	38-7	RepI.by	2N1587	Cur.	none	LT5099	KSC	55-22
GFT44/30	TKAD	20-93	RepI.by	GT1606	Cur.	HA7501	HAC	38-7	J505	TII	none	LT5102	KSC	55-23	
GFT45	TKAD	20-89	GT762	GTC	25-24		HUG	38-6	RepI.by	2N1588	Cur.	none	LT5105	KSC	55-24
GFT45/30	TKAD	20-90	GT762R	GTC	none	HA7502	HAC	38-6	J506	TII	none	LT5108	KSC	55-25	
GFT2006	STAG	52-23	RepI.by	GT1607	Cur.		HUG	38-9	RepI.by	2N1589	Cur.	none	LT5111	KSC	55-26
	STCB						HAC	38-8	J508	TII	none	LT5114	KSC	55-27	
GFT2006/30	TKAD	52-98	GT763	GTC	25-30	HA7506	HAC	38-8	J508	TII	none	LT5117	KSC	55-28	
GFT2006/60	TKAD	52-99	GT764	GTC	25-29		HUG	38-8	RepI.by	2N1590	Cur.	none	LT5120	KSC	55-29
GFT2006/90	TKAD	52-100	RepI.by	GT1609	Cur.	HA7507	HAC	38-8	J508	TII	none	LT5123	KSC	55-30	
GFT3008/20	TKAD	53-14	GT905R	GTC	33-72	HA7510	HAC	59-15	J509	TII	none	LT5157	CBS	54-41	
GFT3008/40	TKAD	53-15	GT948R	GTC	none		HUG	38-40	RepI.by	2N1592	Cur.	none	LT5158	CBS	54-42
GFT3008/60	TKAD	53-16	RepI.by	GT1608	Cur.	HA7515	HUG	38-41	J510	TII	none	LT5159	CBS	54-43	
GFT3008/80	TKAD	53-23	GT949R	GTC	33-73	HA7516	HUG	38-42	RepI.by	2N1593	Cur.	none	LT5160	CBS	55-31
GFT3408/20	TKAD	53-17	GT1079	GTC	34-35	HA7517	HUG	59-16	J511	TII	none	LT5162	CBS	55-32	
GFT3408/40	TKAD	53-18	GT1200	GTC	none		HUG	59-17	RepI.by	2N1594	Cur.	none	LT5164	CBS	55-33
GFT3408/60	TKAD	53-19	RepI.by	2N1310	Cur.	HA7520	HUG	59-18	J581	TII	48-94	LT5164	CBS	58-9	
GFT3408/80	TKAD	53-24	GT1201	GTC	33-103	HA7521	HUG	59-19	J582	TII	48-95	LT5165	CBS	58-10	
GFT4012	TKAD	53-80	GT1202	GTC	33-104	HA7522	HUG	59-20	J583	TII	48-96	LT5201	CBS	53-25	
GFT4012/30	TKAD	53-81	GT1624	GTC	33-104	HA7523	HUG	59-21	J584	TII	48-97	LT5202	CBS	58-11	
GFT4012/60	TKAD	53-82	RepI.by	2N1672	Cur.	HA7524	HUG	59-22	J585	TII	48-98	LT5209	CBS	58-12	
GFT4308/40	TKAD	52-107	GT1658	GIC	none	HA7525	HUG	59-23	J586	TII	48-99	LT5210	CBS	53-68	
GFT4308/60	TKAD	52-108	RepI.by	2N1605	Cur.	HA7526	HUG	59-24	J587	TII	48-100	LT5515	CBS	25-50	
GFT4308/80	TKAD	52-109	GT1665	GTC	none	HA7527	HUG	59-25	J588	TII	48-101	M1	SIHG	25-47	
GFT4412/30	TKAD	53-83	RepI.by	2N1670	Cur.	HA7528	HUG	37-80	J589	TII	48-102	M2	SIHG	25-49	
GFT4412/60	TKAD	53-84	GT2693	GIC	28-17	HA7529	HUG	37-81	J594	TII	48-103	M5A	SHEJ	66-50	
GFT4608/40	TKAD	52-110	GT2694	GIC	27-53	HA7530	HUG	37-82	J595	TII	48-104	M5B	SHEJ	66-51	
GFT4608/60	TKAD	53-1	GT2695	GIC	28-18	HA7531	HUG	37-83	J596	TII	48-105	M5C	SHEJ	66-52	
GFT4608/80	TKAD	53-2	GT2696	GIC	27-54	HA7532	HUG	37-84	J623	TII	41-6	M5D	SHEJ	66-53	
GFT8024	TKAD	55-69	GT2765	GIC	34-28	HA7533	HUG	37-85	J624	TII	41-7	M10A	SHEJ	66-54	
GFT3408320	none	53-20	GT2766	GIC	34-30	HA7534	HUG	37-86	J625	TII	41-8	M10B	SHEJ	66-55	
GM290	TIIB	22-43	GT2767	GIC	34-31		WTC	37-87	J626	TII	41-9	M10C	SHEJ	66-56	
GME0404	GME	37-15	GT2768	GIC	34-25	HA7535	HUG	37-88	J627	TII	41-10	M10D	SHEJ	66-57	
GME0404-1	GME	37-17	GT2883	GIC	27-55		WTC	37-89	J628	TII	41-11	M12H	MATJ	none	
GME0404-2	GME	37-18	GT2884	GIC	34-5	HA7536	HUG	37-90	J629	TII	41-12	RepI.by	2SA308	Obs.	
GME1001	GME	44-61	GT2885	GIC	27-56	HA7537	HUG	37-91	J630	TII	41-13	M14H	MATJ	none	
GME1002	GME	44-62	GT2886	GIC	34-6	HA7538	HUG	37-92	J631	TII	41-14	RepI.by	2SA309	Obs.	
GME2001	GME	44-52	GT2887	GIC	27-57		WTC	37-93	K1001	KMC	51-20	M15H	MATJ	none	
GME2002	GME	44-53	GT2888	GIC	34-7	HA7539	HUG	37-94	K1002	KMC	51-21	RepI.by	2SA310	Obs.	
GME3001	GME	44-77	GT2906	GIC	34-29	HA7540	HUG	37-95	K1003	KMC	51-22	M8108A	TOSJ	none	
GME3002	GME	44-81	GT1A1	ROSG	20-91	HA7541	HUG	37-96	K1004	KMC	51-23	RepI.by	2SC109	Cur.	
GME4001	GME	44-13	GT2A2	ROSG	20-94	HA7542	HUG	37-97	K1201	KMC	51-9	M8108B	TOSJ	none	
GME4002	GME	44-24	GT2A3	ROSG	18-64	HA7543	HUG	37-98	K1202	KMC	51-10	RepI.by	2SC109	Cur.	
GME4003	GME	44-25			75-59	HA7597	HUG	37-99	K1501	KMC	50-9	M8124	TOSJ	21-26	
GME6001	GME	46-53	GTE1	ROSG	26-82	HA7598	HUG	37-63	K1502	KMC	50-10	M8128	TOSJ	none	
GME6002	GME	46-54	GTE2	ROSG	26-83	HA7599	HUG	37-64	K1504	KMC	50-11	RepI.by	2SA372	Cur.	
GME6003	GME	46-49	GTL1	ROSG	53-54	HA7630	HUG	37-65	K2001	KSC	none	MA1	SPR	18-49	
GME9001	GME	44-72	GTL3	ROSG	53-21	HA7631	HUG	37-66	RepI.by	2N2857	Cur.	MA2	SPR	18-31	
		72-35	GTSMPA	GIC	none	HA7632	HUG	59-26	K4002	KMC	47-70	MA28	SPR	18-58	
GME9002	GME	44-73	RepI.by	2N529	Cur.	HA7633	HUG	59-27	K5010	KMC	42-8	MA112	MOTA	29-34	
		72-36	GTSMPB	GIC	none	HA7723	HUG	59-1	K5011	KMC	42-7	MA113	MOTA	29-35	
GME9021	GME	44-63	RepI.by	2N530	Cur.	HA7725	HUG	59-2	K5202	KMC	40-88	MA114	MOTA	29-36	
		71-101	GTSMPC	GIC	none	HA7730	HUG	59-3	KGS1000	KSC	29-110	MA115	MOTA	29-37	
GME9022	GME	44-64	RepI.by	2N531	Cur.	HA7731	HUG	59-4	KGS1001	KSC	30-60	MA116	MOTA	29-38	
		72-11	GTSMPD	GIC	none	HA7732	HUG	59-28	KGS1002	KSC	30-73	MA117	MOTA	29-39	
GMO290	TIIB	22-48	RepI.by	2N532	Cur.	HA7733	HUG	59-29	KGS1003	KSC	30-78	MA240	SELB	18-94	
GMO378	TIIB	22-39	GTSMPE	GIC	none	HA7734	HUG	59-30	KGS1004	KSC	30-88	MA286	MOTA	29-40	
GT1	BTHB	26-88	RepI.by	2N533	Cur.	HA7735	HUG	59-31	KGS1005	KSC	30-61	MA287	MOTA	29-41	
	GTC		GTV	ROSG	26-84	HA7736	HUG	37-67	KY4042	UCC	74-101	MA288	MOTA	29-42	
GT2	BTHB	26-94	H3A	MIN	52-58	HA7737	HUG	75-107	KY4043	UCC	74-102	MA393	SELB	18-52	
	GTC		H4A	MIN	52-59	HA7804	HUG	75-108	KY4099	UCC	74-103	MA393A	SELB	18-53	
GT3	BTHB	26-99	H5	HON	53-100		HUG	75-109	L10A	SHEJ	67-54	MA393B	SELB	18-54	
	GTC		H5B2N3	HON	53-93	HA7806	HUG	74-99	L10B	SHEJ	67-55	MA393C	SELB	18-50	
GT11	BTHB	24-65	H6	HON	53-101		HUG	75-100	L10C	SHEJ	67-56	MA393E	SELB	18-95	
	GTC		H7	HON	53-102	HA7807									

1. TYPE No. CROSS INDEX

IN TYPE NUMBER SEQUENCE

TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line
MA3233	HUG	76-87	MM511	MOTA	none	MPS2894	MOTA	38-89	NKT184/25	NTLB	21-78	NS734	NAS	47-15
MA3234	HUG	76-88	Repl.by 2N2220	CUR	none			72-56	NKT201	NTLB	31-63	NS734A	NSC	47-16
MA4990	MIC	63-37	MM512	MOTA	none	MSP65A	MST	62-104	NKT202	NTLB	29-87	NS792	NSC	none
MA7805	HUG	37-72	Repl.by 2N2221	Cur.	none	MSP75A	MST	62-105	NKT203	NTLB	29-68	Repl.by 2N2403	Obs.	
		76-3	MM513	MOTA	none	MT01	SELB	50-14	NKT204	NTLB	29-69	NS793	NSC	none
MA7807	HUG	74-104	Repl.by 2N2222	Cur.	none	MT100	GIC	41-110	NKT205	NTLB	29-70	Repl.by 2N2404	Obs.	
MA7809	HUG	74-105	MM719	MOTA	none	MT101	GIC	40-110	NKT206	NTLB	29-71	NS949	NSC	61-65
MA7811	HUG	37-73	Repl.by 2N2951	Cur.	none	MT102	GIC	41-109	NKT207	NTLB	29-72			71-33
		76-4	MM799	MOTA	none	MT104	GIC	41-91	NKT208	NTLB	31-64	NS950	NSC	61-66
MA7816	HUG	37-74	Repl.by 2N2948	Cur.	none	MT106	GIC	41-106	NKT221	NTLB	31-52			71-34
		76-5	MM800	MOTA	none	MT107	GIC	41-107	NKT222	NTLB	29-54	NS1000	NAS	37-78
MA7817	HUG	37-75	Repl.by 2N2947	Cur.	none	MT696	HUG	44-27	NKT222S1	NTLB	31-62	NS1001	NAS	37-79
		76-6	MM801	MOTA	none	MT697	HUG	44-28	NKT222S2	NTLB	31-67	NS1002	NAS	37-58
MAS20	SELB	18-59	Repl.by 2N2950	Cur.	none	MT698	HUG	44-29	NKT225	NTLB	29-55	NS1116	NSC	68-1
MAS21	SELB	18-60	MM1008	MOTA	none	MT699	HUG	44-30	NKT227	NTLB	29-56			73-5
MAS22	SELB	18-61	Repl.by 2N3444	Cur.	none	MT706	HUG	44-65	NKT228	NTLB	31-53	NS1234	NSC	38-13
MAS23	SELB	18-62	MM1151	MOTA	none	MT706A	HUG	44-66	NKT231	NTLB	31-65	NS1355	NAS	48-80
MC104	SIHG	47-58	Repl.by 2N3279	Cur.	none	MT706B	HUG	44-67	NKT232	NTLB	31-66	NS1356	NAS	49-51
MC105	SIHG	47-59	MM1152	MOTA	none	MT707	HUG	44-68	NKT237	NTLB	31-54	NS1500	NSC	40-13
MC106	SIHG	47-60	Repl.by 2N3280	Cur.	none	MT708	HUG	44-69	NKT238	NTLB	31-55	NS1672	NSC	37-88
MC107	SIHG	47-61	MM1153	MOTA	none	MT726	HUG	36-58	NKT239	NTLB	31-42	NS1673	NSC	37-89
MCS2135	MOTA	41-78	Repl.by 2N3281	Cur.	none	MT743	HUG	44-74	NKT240	NTLB	31-43	NS1874	NSC	37-90
MCS2136	MOTA	41-79	MM1154	MOTA	none	MT744	HUG	44-75	NKT241	NTLB	31-44	NS1675	NSC	37-91
MCS2137	MOTA	35-69	Repl.by 2N3282	Cur.	none	MT753	HUG	44-54	NKT242	NTLB	31-45	NS1861	NSC	37-48
MCS2138	MOTA	35-70	MM1161	MOTA	none	MT869	HUG	36-56	NKT243	NTLB	31-46	NS1862	NSC	37-49
MD501	SELB	20-45	Repl.by 2N3287	Cur.	none	MT870	HUG	44-36	NKT244	NTLB	31-47	NS1863	NSC	36-69
		68-11	MM1162	MOTA	none	MT871	HUG	44-37	NKT245	NTLB	31-48	NS1864	NSC	36-70
MD501B	SELB	20-46	Repl.by 2N3288	Cur.	none	MT910	HUG	44-38	NKT246	NTLB	26-82	NS1900	NSC	46-47
		68-12	MM1163	MOTA	none	MT911	HUG	44-39	NKT247	NTLB	26-87	NS1960	NAS	48-81
MD1123	MOTA	74-106	Repl.by 2N3289	Cur.	none	MT912	HUG	44-40	NKT249	NTLB	18-73	NS1972	NSC	47-17
MD1123F	MOTA	74-107	MM1164	MOTA	none	MT914	HUG	49-87	NKT251	NTLB	31-59	NS1973	NSC	47-18
MD1124	MOTA	74-108	Repl.by 2N3290	Cur.	none	MT995	HUG	36-57	NKT252	NTLB	29-59	NS1974	NSC	47-19
MD1124F	MOTA	74-109	MM1461	MOTA	none	MT1131	HUG	36-40	NKT253	NTLB	31-60	NS1975	NSC	47-20
MD1125	MOTA	74-110	Repl.by 2N3506	Cur.	none	MT1131A	HUG	36-41	NKT254	NTLB	29-60	NS2100	NSC	48-14
MD1125F	MOTA	75-1	MM1462	MOTA	none	MT1132	HUG	36-42	NKT255	NTLB	24-27			71-37
MD1133	MOTA	75-2	Repl.by 2N3507	Cur.	none	MT1132A	HUG	36-43	NKT263	NTLB	31-61	NS2101	NSC	49-52
MD1133F	MOTA	75-3	MM1736	MOTA	none	MT1132B	HUG	36-44	NKT265	NTLB	24-28			71-38
MDS31	SELB	20-66	Repl.by 2N3634	Cur.	none	MT1254	HUG	36-48	NKT273	NTLB	30-1	NS2525	NSC	44-70
		70-65	MM1737	MOTA	none	MT1255	HUG	36-49	NKT275A	NTLB	30-2	NS3000	NSC	39-52
MDS32	SELB	20-63	Repl.by 2N3635	Cur.	none	MT1256	HUG	36-50	NKT275E	NTLB	30-3			76-8
MDS33	SELB	20-79	MM1738	MOTA	none	MT1257	HUG	36-51	NKT275J	NTLB	30-4	NS3001	NSC	39-53
MDS33A	SELB	20-80	Repl.by 2N3636	Cur.	none	MT1258	HUG	36-52	NKT278	NTLB	29-83			76-9
MDS33C	SELB	20-76	MM1739	MOTA	none	MT1259	HUG	36-53	NKT301	NTLB	32-6	NS3039	NSC	40-14
		71-44	Repl.by 2N3637	Cur.	none	MT1420	HUG	36-45	NKT301A	NTLB	52-75			78-10
MDS33D	SELB	20-77	MM1943	MOTA	46-4	MT1613	HUG	44-31	NKT302A	NTLB	52-76	NS3040	NSC	40-15
MDS34	SELB	20-47	MM1945	MOTA	49-65	MT1711	HUG	44-32	NKT303	NTLB	32-7			76-11
		70-37	MM2090	MOTA	none	MT1893	HUG	44-41	NKT352	NTLB	32-3	NS3041	NSC	40-16
MDS35	SELB	19-1	Repl.by 3N124	Cur.	none	MT1991	HUG	36-46	NKT361	NTLB	32-4			78-12
MDS36	SELB	20-67	MM2091	MOTA	none	MT2303	HUG	36-47	NKT362	NTLB	32-5	NS3050	NSC	39-54
		70-66	Repl.by 3N125	Cur.	none	MT2411	HUG	36-59	NKT415	NTLB	53-85			78-13
MDS37	SELB	27-58	MM2092	MOTA	none	MT2412	HUG	36-60	NKT416	NTLB	53-86	NS3051	NSC	39-55
		68-22	Repl.by 3N126	Cur.	none	MTM360	MITJ	63-4	NKT450	NTLB	54-89			78-14
MDS38	SELB	20-24	MM2102	MOTA	51-32	N104B	FSC	none	NKT450X2	NTLB	75-5	NS3052	NSC	39-56
		71-61			68-18	Repl.by 2N957	Cur.	none	NKT452S1	NTLB	55-34			78-15
MDS39	SELB	20-78			73-69	NKT4	NTLB	24-37	NKT501	NTLB	56-42	NS3053	NSC	39-57
MDS40	SELB	20-68	MM2103	MOTA	50-36	NKT5	NTLB	24-31	NKT502	NTLB	56-43			78-16
ME495	APX	46-38			68-19	NKT25	NTLB	24-32	NKT503	NTLB	56-44	NS3108	NSC	76-17
ME501	none	37-19			73-70	NKT25A	NTLB	24-33	NKT504	NTLB	56-45	NS3109	NSC	76-18
		75-4	MM2264	MOTA	62-63	NKT32	NTLB	20-104	NKT618	NTLB	25-31	NS3110	NSC	78-19
ME509	AME	76-7	MM2503	MOTA	22-51	NKT33	NTLB	20-102	NKT675	NTLB	23-98	NS3300	NSC	48-12
ME510	AME	75-36	MM2550	MOTA	29-21	NKT42	NTLB	20-105	NKT676	NTLB	23-108			78-20
ME900A	APX	46-45			72-100	NKT43	NTLB	20-103	NKT677	NTLB	23-99	NS6062	NSC	35-61
ME901A	APX	46-46	MM2552	MOTA	31-75	NKT52	NTLB	21-54	NKT701	NTLB	34-21	NS6063	NSC	35-62
ME8021	UEHK	71-96			72-101	NKT53	NTLB	21-55	NKT703	NTLB	34-22	NS6064	NSC	35-63
ME8022	UEHK	71-97	MM2554	MOTA	31-76	NKT54	NTLB	21-56	NKT735	NTLB	69-24	NS6065	NSC	35-64
MEM519	GIC	50-1			72-102	NKT62	NTLB	21-57	NKT751	NTLB	34-19	NS6112	NSC	41-80
MF100	SIX	51-1	MM2894	MOTA	37-23	NKT63	NTLB	21-58	NKT752	NTLB	34-20	NS6113	NSC	41-81
MF101	SIX	51-2			72-55	NKT64	NTLB	21-59	NKT753	NTLB	34-48	NS6114	NSC	41-82
MF1161	MOTA	none	MM13A	MOTA	31-87	NKT74	NTLB	21-60	NKT774	NTLB	34-8	NS6115	NSC	41-83
Repl.by 2N3287	Cur.	none	MM13B	MOTA	31-88	NKT101	NTLB	22-4	NPC151	NPC	none	NS6207	NSC	41-92
MF1162	MOTA	none	MM13C	MOTA	31-89			69-54	Repl.by 2N2223	Cur.	none	NS6208	NSC	76-21
Repl.by 2N3288	Cur.	none	MM19	MOTA	none	NKT102	NTLB	21-92	NPT800	NPC	none	NS6209	NSC	76-22
MF1163	MOTA	none	Repl.by 2N505	Cur.	none			69-31	Repl.by 2N3399	Cur.	none	NS6210	NSC	41-47
Repl.by 2N3289	Cur.	none	MM21	MOTA	56-5	NKT103	NTLB	21-64	NSO60	NAS	41-1			78-23
MF1164	MOTA	none	MM24	MOTA	none			68-108	NSO61	NSC	47-73			78-24
Repl.by 2N3290	Cur.	none	Repl.by 2N350	Cur.	none	NKT104	NTLB	22-5	NSO63	NSC	41-26	NS6211	NSC	35-28
MF3304	MOTA	35-1	MM25	MOTA	none			69-55	NSO64	NSC	47-77			78-25
MHT1802	MIN	56-100	Repl.by 2N351	Cur.	none	NKT105	NTLB	21-93	NSO66	NSC	41-34	NS6212	NSC	41-93
MHT1803	MIN	56-101	MM26	MOTA	none			69-32	NSO67	NSC	47-79	NS7000	NSC	75-6
MHT1804	MIN	56-102	Repl.by 2N376	Cur.	none	NKT106	NTLB	21-65	NSO69	NSC	41-38	NS7001	NAS	75-7
MHT1902	MIN	56-86	MM29	MOTA	56-6			68-109	NSO70	NSC	47-81	NS7070	NSC	75-8
MHT1903	MIN	56-87	MM29	MOTA	56-7	NKT107	NTLB	22-6	NSO72	NSC	41-43	NS7100	NSC	76-89
MHT1904	MIN	56-88	MM32	MOTA	56-8			69-56	NSO73	NSC	47-83	NS7630	NSC	76-25
MHT2002	MIN													

1. TYPE No. CROSS INDEX

TYPE No.				MFRS Pg&Line				TYPE No.				MFRS Pg&Line				TYPE No.				MFRS Pg&Line				IN TYPE NUMBER SEQUENCE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
OC4H	VANN	24-104	OC460	BRUB	35-95	PEP7	AEIL	45-82	PT706	PSI	none	RT717M	RAYN	none	OC4K	VANN	25-11	OC460K	BRUB	36-24	PEP8	AEIL	45-82	PT706-1	PSI	none	RT718AM	RAYN	none	OC4L	VANN	25-83	OC463	BRUB	36-7	PEP9	AEIL	45-80	PT706A	TRW	none	RT718M	RAYN	none	OC4LP	VANN	25-84	OC463K	BRUB	38-4	PET0404	PHIL	37-16	PT706A-1	TRW	none	RT719M	RAYN	47-34	OC4LR	VANN	25-85	OC465	BRUB	35-93	PET0404-1	PHIL	37-20	PT709	TRW	none	RT720M	RAYN	71-9	OC4N	VANN	25-22	OC465K	BRUB	36-22	PET0404-2	PHIL	37-21	PT709-1	TRW	none	RT730M	RAYN	none	OC5-O	VANN	25-26	OC466	BRUB	35-96	PET8003	PHIL	71-102	PT709-1	TRW	none	RT731M	RAYN	69-60	OC5K	VANN	25-12	OC466K	BRUB	36-25	PET9003	PHIL	72-12	PT720	TRW	none	RT910M	RAYN	46-28	OC5L	VANN	25-86	OC467	BRUB	35-98	PET9004	PHIL	75-43	PT801	TRW	none	RT929H	RAYN	69-61	OC5LP	VANN	25-87	OC467K	BRUB	36-27	Ph241N	none	75-45	PT802	TRW	none	RT1115	RAYN	46-30	OC5LR	VANN	25-88	OC468	BRUB	35-102	Ph242	none	51-34	PT822	PSI	none	RT1210	RAYN	39-40	OC5N	VANN	25-23	OC468K	BRUB	36-28	Ph242N	none	51-35	PT822	PSI	none	RT1252M	RAYN	48-39	OC16	MULB	none	OC469	BRUB	35-94	Ph244	none	75-48	PT851	PSI	none	RT1253M	RAYN	70-77	Repl.by 2N115	Obs.	none	OC469K	BRUB	36-23	Ph244N	none	75-49	PT852	PSI	none	RT1409M	RAYN	46-103	OC27	AMP	none	OC470	BRUB	35-97	PMT011	PSI	39-58	PT852	PSI	none	RT1410M	RAYN	46-105	Repl.by 2N1315	Obs.	none	OC470K	BRUB	36-26	PMT012	PSI	39-59	PT853	PSI	none	RT1420M	RAYN	46-106	OC32	NPC	19-74	OC480	BRUB	36-5	PMT013	PSI	39-60	PT887	TRW	48-28	RT1613M	RAYN	60-11	OC33	NPC	19-87	OC480K	BRUB	38-3	PMT014	PSI	39-61	PT888	TRW	48-29	Repl.by 2N2317	Cur.	none	OC34	NPC	19-92	OC801	BRUB	19-67	PMT015	PSI	39-62	PT888	TRW	48-30	RT1890M	RAYN	49-37	OC40	VANN	25-27	OC802	TFKG	19-91	PMT016	PSI	39-63	PT897	TRW	48-30	RT1899	RADF	none	OC46N	TII	23-5	OC803	TFKG	19-91	PMT019	TRW	39-64	PT897	TRW	48-30	Repl.by 2N1899	Cur.	37-24	OC47N	MINA	23-12	OC804	TFKG	19-93	PMT020	TRW	39-65	PT898	TRW	66-103	RT2459	RAYN	72-84	OC50	VANN	25-28	OC804	TFKG	19-95	PMT021	TRW	39-66	PT900-1	PSI	66-104	RT2460	RAYN	37-25	OC53	APX	18-16	OC805	TFKG	18-88	PMT022	TRW	40-53	PT901	PSI	66-104	RT2461	RAYN	35-109	OC54	APX	18-17	OC806	TFKG	18-89	PMT023	TRW	40-53	PT901-1	TRW	none	RT2462	RAYN	36-91	OC55	APX	18-18	OC807	TFKG	18-74	PMT024	TRW	40-53	PT902	TRW	none	RT2463	RAYN	72-98	OC56	APX	18-7	OC808	TFKG	18-75	PMT025	TRW	40-53	PT902	TRW	none	RT2463	RAYN	35-110	OC71N	APX	24-67	OC809	TFKG	18-76	PMT111	TRW	39-67	PT902-1	TRW	none	RT3500	RAYN	37-87	OC73	MULB	none	OC810	TFKG	18-75	PMT112	TRW	39-69	PT903	TRW	none	RT3501	RAYN	75-11	Repl.by 2N283	Cur.	26-84	OC811	TFKG	18-76	PMT113	TRW	39-70	PT903	TRW	none	RT4230	RAYN	none	OC75N	APX	25-62	OC812	TFKG	18-75	PMT114	TRW	39-71	PT903-1	TRW	none	Repl.by 2N2309	Cur.	60-108	OC303	INTG	20-106	OC813	TFKG	18-76	PMT115	TRW	39-72	PT903-1	TRW	none	RT5002	RHE	60-109	OC304/1	BRUB	25-63	OC814	TFKG	36-96	PMT116	TRW	46-80	PT903-1	TRW	63-5	RT5003	RAYN	60-110	OC304/2	INTG	25-65	OC815	TFKG	36-97	PMT117	TRW	46-80	PT903-1	TRW	63-34	RT5004	RHE	61-1	OC304/3	INTG	25-67	OC816	TFKG	36-101	PMT118	TRW	39-73	PT903-1	TRW	63-6	RT5004	RAYN	48-68	OC305	INTG	20-107	OC817	TFKG	36-95	PMT119	TRW	39-74	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC305/1	BRUB	25-69	OC818	TFKG	36-98	PMT120	TRW	39-75	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC305/2	BRUB	25-70	OC819	TFKG	36-99	PMT121	TRW	40-54	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC306/1	BRUB	25-64	OC820	TFKG	36-100	PMT122	TRW	40-55	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC306/2	BRUB	25-66	OC821	TFKG	36-93	PMT123	TRW	44-79	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC306/3	BRUB	25-68	OC822	TFKG	36-94	PMT124	TRW	72-86	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC307	BRUB	26-91	OC823	TFKG	36-102	PMT125	TRW	43-83	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC307-1	BRUB	25-56	OC824	TFKG	37-1	PMT126	TRW	40-23	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC307-2	BRUB	25-57	OC825	TFKG	37-1	PMT127	TRW	49-44	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC307-3	BRUB	25-58	OC826	TFKG	37-1	PMT128	TRW	49-45	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC308	BRUB	21-51	OC827	TFKG	37-1	PMT129	TRW	49-46	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC309	BRUB	26-92	OC828	TFKG	37-1	PMT130	TRW	49-47	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC309-1	BRUB	25-59	OC829	TFKG	37-1	PMT131	TRW	49-48	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC309-2	BRUB	25-60	OC830	TFKG	37-1	PMT132	TRW	49-49	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC309-3	BRUB	25-61	OC831	TFKG	37-1	PMT133	TRW	49-50	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC318	BRUB	31-12	OC832	TFKG	37-1	PMT134	TRW	49-51	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC320	NPC	20-95	OC833	TFKG	37-1	PMT135	TRW	49-52	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC330	INTG	19-42	OC834	TFKG	37-1	PMT136	TRW	49-53	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC331	NPC	18-77	OC835	TFKG	37-1	PMT137	TRW	49-54	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC340	INTG	19-44	OC836	TFKG	37-1	PMT138	TRW	49-55	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC341	BRUB	18-78	OC837	TFKG	37-1	PMT139	TRW	49-56	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC342	BRUB	18-79	OC838	TFKG	37-1	PMT140	TRW	49-57	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC343	BRUB	18-83	OC839	TFKG	37-1	PMT141	TRW	49-58	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC350	INTG	19-45	OC840	TFKG	37-1	PMT142	TRW	49-59	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC351	BRUB	18-85	OC841	TFKG	37-1	PMT143	TRW	49-60	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC360	INTG	19-43	OC842	TFKG	37-1	PMT144	TRW	49-61	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC361	BRUB	18-80	OC843	TFKG	37-1	PMT145	TRW	49-62	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC362	BRUB	18-81	OC844	TFKG	37-1	PMT146	TRW	49-63	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC363	BRUB	18-84	OC845	TFKG	37-1	PMT147	TRW	49-64	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC364	BRUB	18-87	OC846	TFKG	37-1	PMT148	TRW	49-65	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC390	INTG	20-96	OC847	TFKG	37-1	PMT149	TRW	49-66	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC400	INTG	20-97	OC848	TFKG	37-1	PMT150	TRW	49-67	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC410	INTG	20-98	OC849	TFKG	37-1	PMT151	TRW	49-68	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC430	BRUB	35-86	OC850	TFKG	37-1	PMT152	TRW	49-69	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC430K	BRUB	35-87	OC851	TFKG	37-1	PMT153	TRW	49-70	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC440	BRUB	35-88	OC852	TFKG	37-1	PMT154	TRW	49-71	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC440K	BRUB	36-13	OC853	TFKG	37-1	PMT155	TRW	49-72	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC443	INTG	35-91	OC854	TFKG	37-1	PMT156	TRW	49-73	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC443K	INTG	36-20	OC855	TFKG	37-1	PMT157	TRW	49-74	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC445	BRUB	35-89	OC856	TFKG	37-1	PMT158	TRW	49-75	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC445K	BRUB	36-14	OC857	TFKG	37-1	PMT159	TRW	49-76	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC449	INTG	35-92	OC858	TFKG	37-1	PMT160	TRW	49-77	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC449K	INTG	36-21	OC859	TFKG	37-1	PMT161	TRW	49-78	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC450	BRUB	35-90	OC860	TFKG	37-1	PMT162	TRW	49-79	PT903-1	TRW	63-7	RT5004	RHE	48-69	OC450K	BRUB	36-17	OC861	TFKG	37-1	PMT163	TRW	49-80	PT903-1	TRW	63-7	RT5004	RHE	48-69

1. TYPE No. CROSS INDEX

IN TYPE NUMBER SEQUENCE

TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line
SAC40B	SELB	35-53	SFT713	CSF	70-107	ST02	SELB	46-70	ST163	SELB	48-36	ST6125	TEC	46-18
		76-33		MISI				71-63			70-20	ST6130	TEC	46-86
SAC42	SELB	35-54	SFT714	CSF	none	ST03	SELB	46-71	ST175	SELB	48-82	ST6510	TEC	60-91
		76-34		MISI				71-64	ST176	SELB	48-83	ST6511	TEC	60-92
SAC42A	SELB	35-55	Repl.by BSX51	CUR.	Cur.	ST3	SESC	73-77	ST177	SELB	48-84	ST6512	TEC	60-93
		76-35	SFT714A	CSF	none	ST04	SELB	46-72	ST178	SELB	48-37	ST6573	TEC	49-40
SAC42B	SELB	35-25		MISI				71-65	ST180	SELB	48-85	ST6574	TEC	49-41
		76-36	Repl.by BSX51A	Cur.		ST05	SELB	46-73	ST181	SELB	48-86	ST6593	TEC	47-25
SAC44	SELB	35-35	SFT715	CSF	none			71-66	ST182	SELB	48-87	ST6594	TEC	47-26
		76-37		MISI		ST06	SELB	46-48	ST185	SELB	48-88	ST6600	TEC	47-30
SB100	PHIL	18-14	Repl.by BSX52	Cur.		ST9	TEC	none	ST186	SELB	48-89	ST6601	TEC	49-50
	SPR		SFT715A	CSF	none	Repl.by 2N1417	Cur.		ST187	SELB	48-90	ST7120	TEC	65-41
SB200	PHIL	18-30	Repl.by BSX52A	Cur.		ST10	ROSG	none	ST250	SELB	46-41	ST7130	TEC	65-42
SB5122	SPR	none	SI341P	AKER	38-19		TEC		ST251	SELB	46-42	ST7200	TEC	60-94
	Repl.by 2N240	Cur.			70-45	Repl.by 2N470	Cur.		ST400	TEC	none	ST8014	TEC	38-12
SDD320	LTTF	67-66	SI342P	AKER	38-20	ST11	TEC	none	Repl.by 2N1250	Cur.	none	ST8033	TEC	38-15
SDD420	LTTF	48-44			70-46	Repl.by 2N473	Cur.		ST401	TEC	none	ST8034	TEC	38-16
SDD412	LTTF	45-13	SI343P	AKER	38-21	ST12	TEC	none	Repl.by 2N2032	Cur.	none	ST8181	TEC	37-100
SDD820	LTTF	48-73			70-47	Repl.by 2N478	Cur.		ST402	TEC	63-110	ST8182	TEC	37-101
SDD821	LTTF	45-23	SI351P	AKER	37-92	ST13	TEC	none	ST403	TEC	64-1	ST8183	TEC	38-22
SDD1220	LTTF	48-55			70-54	Repl.by 2N476	Cur.		ST410	TEC	none	ST8184	TEC	38-23
SDD3000	LTTF	47-43	SI352P	AKER	37-93	ST14	TEC	none	Repl.by 2N1208	Cur.	none	ST8700	TEC	36-73
SE3040	FSC	63-94			70-55	Repl.by 2N541	Cur.		ST411	TEC	none	ST9001	TEC	59-35
		70-30	SI353P	AKER	37-94	ST15	TEC	42-65	Repl.by 2N1209	Cur.	none	STC389	SIL	66-4
SE3041	FSC	63-95			70-56	ST25A	NECJ	41-55	ST414	TEC	none	STC1001	SIL	64-39
		70-31	SL100	NSC	none	ST25B	NECJ	41-56	Repl.by 2N1212	Cur.	none	STC1035	SIL	64-64
SE7010	FSC	49-36	Repl.by 2N4292	Cur.		ST25C	NECJ	41-57	ST415	TEC	65-103	STC1035A	SIL	64-85
SE9030	FSC	66-57	SL200	NSC	36-31	ST29	TEC	none	ST440	TEC	65-39	STC1036	SIL	64-66
SE9020	FSC	65-98	SL201	NSC	none	Repl.by 2N1418	Cur.		ST450	TEC	65-40	STC1036A	SIL	64-67
		70-42	Repl.by 2N4284	Cur.		ST30	SELB	none	ST501	SELB	45-60	STC1101	SIL	65-43
SE9060	FSC	63-96	SL300	NSC	none		TEC				71-59	STC1102	SIL	65-44
SE9061	FSC	63-97	Repl.by 2N4286	Cur.		Repl.by 2N471	Cur.		ST502	SELB	45-61	STC1103	SIL	65-45
SE9062	FSC	63-98	SN101	CSC	none	ST31	SELB	none			71-60	STC1104	SIL	65-46
SE9063	FSC	63-99	Repl.by 2N2486	Cur.			TEC		ST503	SELB	44-97	STC1105	SIL	65-47
SE9560	FSC	59-33	SN102	CSC	none	Repl.by 2N474	Cur.		ST504	SELB	44-98	STC1105A	SIL	65-48
SE9561	FSC	59-34	Repl.by 2N2485	Cur.		ST32	SELB	none	ST610	SAKJ	66-39	STC1106	SIL	65-49
SE9562	FSC	59-5	SN109	CSC	none		TEC				68-62	STC1106A	SIL	65-50
SE9563	FSC	59-6	Repl.by 2N2650	Cur.		Repl.by 2N479	Cur.		ST615	SAKJ	66-40	STC1311	SIL	63-104
SE9570	FSC	59-36	SN110	CSC	none	ST33	SELB	none			68-63	STC1312	SIL	63-105
SE9571	FSC	59-37	Repl.by 2N2649	Cur.			TEC		ST721	ASMB	43-105	STC1313	SIL	63-106
SE9572	FSC	59-38	SN118	CSC	61-106	Repl.by 2N477	Cur.			ASMB		STC1314	SIL	63-107
SE9573	FSC	59-39	SN166	NAS	63-12	ST34	TEC	none	ST722	ASMB	43-108	STC1331	SIL	63-108
SEC1077	SEC	65-99	SN167	NSC	63-13	Repl.by 2N542	Cur.			ASMB		STC1332	SIL	63-109
	SIL		SN171	NSC	63-14	ST35	TEC	42-66	ST723	ASMB	44-1	STC1725	SIL	none
SEC1078	SEC	65-100	SN172	NSC	63-15	ST40	SELB	none		ASMB		Repl.by 2N2815	Cur.	
	SIL		SN173	NSC	63-16		TEC		ST1026	TEC	none	STC1727	SIL	none
SEC1079	SEC	65-101	SN200	NAS	none	Repl.by 2N472	Cur.		Repl.by 2N1247	Cur.	none	Repl.by 2N2819	Cur.	
	SIL		Repl.by 2N3142	Cur.		ST41	SELB	none	ST1050	TEC	none	STC1729	SIL	none
SEC1080	SEC	65-102	SN201	NAS	none		TEC		Repl.by 2N1248	Cur.	none	Repl.by 2N2823	Cur.	
	SIL		Repl.by 2N3143	Cur.		Repl.by 2N475	Cur.		ST1242	TEC	41-27	STC1730	SIL	none
SEC1477	SEC	67-40	SN202	NAS	none	ST42	SELB	none	ST1243	TEC	41-48	Repl.by 2N2816	Cur.	
	SIL		Repl.by 2N3144	Cur.			TEC		ST1244	TEC	41-49	STC1732	SIL	none
SEC1478	SEC	67-41	SN204	NAS	none	Repl.by 2N480	Cur.		ST1290	TEC	41-50	Repl.by 2N2820	Cur.	
	SIL		Repl.by 2N3145	Cur.		ST43	SELB	46-61	ST1504	TEC	none	STC1734	SIL	none
SEC1479	SEC	67-42	SN230	CSC	63-17	ST44	TEC	none	Repl.by 2N754	Cur.	none	Repl.by 2N2824	Cur.	
	SIL		SN231	NAS	63-18	Repl.by 2N543	Cur.		ST1505	TEC	none	STC1735	SIL	none
SEC1480	SEC	67-43	SN232	CSC	63-19	ST45	TEC	42-67	Repl.by 2N755	Cur.	42-67	Repl.by 2N2817	Cur.	
	SIL		SN233	NAS	63-20	ST53	SELB	45-51	ST1523	TEC	none	STC1737	SIL	none
SFT106	CSF	28-8	SN234	CSC	63-20	ST54	SELB	71-67	Repl.by 2N839	Cur.	71-67	Repl.by 2N2821	Cur.	
	MIFI		SN270	NAS	none	ST55	SELB	45-84	ST1524	TEC	none	STC1739	SIL	none
SFT107	CSF	28-42	SN271	NAS	none	ST56	SELB	71-103	Repl.by 2N840	Cur.	71-103	Repl.by 2N2825	Cur.	
	MIFI		Repl.by 2N3138	Cur.		ST57	SELB	45-85	ST1525	TEC	none	STC1750	SIL	66-105
SFT108	CSF	28-67	SN272	NAS	none	ST58	SELB	70-16	Repl.by 2N841	Cur.	70-16	STC1751	SIL	none
	MIFI		Repl.by 2N3139	Cur.		ST59	SELB	45-86	Repl.by 2N842	Cur.	none	Repl.by 2N2818	Cur.	
SFT113	CSF	53-3	SN273	NAS	none	ST60	SELB	71-68	ST1527	TEC	71-68	STC1777	SIL	none
	MIFI		Repl.by 2N3140	Cur.		ST61	SELB	45-87	Repl.by 2N843	Cur.	none	Repl.by 2N2822	Cur.	
SFT114	CSF	53-4	SN274	NAS	none	ST62	SELB	71-69	ST1543	TEC	39-20	Repl.by 2N3149	Cur.	
	MIFI		Repl.by 2N3141	Cur.		ST63	SELB	45-88	ST1607	TEC	44-99	STC2101	SIL	none
SFT115	CSF	28-84	SN500	NAS	61-107	ST64	SELB	46-74	ST1633	TEC	44-100	Repl.by 2N3150	Cur.	
	MIFI		SN7204	TEC	35-10	ST65	SELB	72-30	ST1694	TEC	40-78	STC5080	SIL	none
SFT121	CSF	30-19	SO1	SPR	18-32	ST66	SELB	46-75	ST1700	TEC	45-11	Repl.by 2N1371	Cur.	
	MIFI		SO2	SPR	18-21	ST67	SELB	72-9	ST2110	TEC	43-59	STC5081	SIL	none
SFT122	CSF	30-30	SO3	SPR	18-33	ST68	SELB	46-82	ST2120	TEC	43-65	Repl.by 2N3172	Cur.	
	MIFI		SP8411	FSC	76-95	ST69	SELB	72-31	ST2130	TEC	43-45	STC5082	SIL	none
SFT123	CSF	30-49				ST70	SELB	46-83	ST3030	TEC	40-11	Repl.by 2N3173	Cur.	
	MIFI		SP8411A	SGSI	76-96	ST71	SELB	72-32	ST3042	TEC	39-19	STC5083	SIL	none
SFT126	CSF	28-32				ST72	SELB	46-84	ST3043	TEC	39-23	Repl.by 2N3183	Cur.	
	MIFI		SP8412	SGSI	76-97	ST73	SELB	72-33	ST3044	TEC	39-24	STC5084	SIL	none
SFT127	CSF	28-43				ST74	SELB	40-87	ST4044	TEC	none	Repl.by 2N3184	Cur.	
	MIFI		SP8412A	SGSI	76-98	ST75	SELB	71-71	Repl.by 2N1116	Cur.	71-71	STC5085	SIL	none
SFT128	CSF	28-68				ST76	SELB	46-78	ST4045	TEC	none	Repl.by 2N3185	Cur.	
	MIFI		SP8413	SGSI	76-99	ST77	SELB	72-22	Repl.by 2N1117	Cur.	72-22	STC5109/1	SIL	59-42
SFT135	CSF	28-1				ST78	SELB	68-38	ST4080	TEC	none	STC5112/1	SIL	59-43
	MIFI		SP8413A	SGSI	76-100	ST79	SELB	68-61	Repl.by 2N1206	Cur.	68-61	STC5113/1	SIL	59-44
SFT136	CSF	28-44				ST80	SELB	46-95	ST4081	TEC	none	STC5114/1	SIL	59-45
	MIFI		SP8414	SGSI	76-101	ST81	SELB	46-7	Repl.by 2N1207	Cur.	46-7	STC5119/1	SIL	5

1. TYPE No. CROSS INDEX

IN TYPE NUMBER SEQUENCE

TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line
STC5650	SIL	none	T1043	PHIL	none	T1870	PHIL	none	T2019	PHIL	none	T2479	PHIL	none
Repl.by 2N3780	Cur.		Repl.by 2N227	Cur.		Repl.by 2N1199	Obs.		Repl.by 2N1748	Cur.		Repl.by 2N2651	Cur.	
STC5651	SIL	none	T1046	PHIL	none	T1884	PHIL	none	T2020	PHIL	none	T2490	PHIL	none
Repl.by 2N3781	Cur.		Repl.by 2N224	Cur.		Repl.by 2N1267	Obs.		Repl.by 2N1864	Cur.		Repl.by 2N2400	Cur.	
STC5652	SIL	none	T1047	PHIL	none	T1885	PHIL	none	T2021	PHIL	none	T2491	PHIL	none
Repl.by 2N3782	Cur.		Repl.by 2N225	Cur.		Repl.by 2N1268	Obs.		Repl.by 2N1788	Cur.		Repl.by 2N2401	Cur.	
STX5/3010	AEIL	67-44	T1050	PHIL	18-15	T1886	PHIL	none	T2022	PHIL	none	T2492	PHIL	none
STX5/3025	AEIL	67-45				Repl.by 2N1269	Obs.		Repl.by 2N1789	Cur.		Repl.by 2N2402	Cur.	
STX5/5010	AEIL	67-46	T1159	PHIL	none	T1887	PHIL	none	T2023	PHIL	none	T2560	PHIL	none
STX5/5025	AEIL	67-47	Repl.by 2N355	Obs.		Repl.by 2N1270	Obs.		Repl.by 2N1790	Cur.		Repl.by 2N2374	Cur.	
STX5/6010	AEIL	67-48	T1166	PHIL	none	T1888	PHIL	none	T2024	PHIL	none	T2578	PHIL	none
STX5/6025	AEIL	67-49	Repl.by 2N393	Cur.		Repl.by 2N1271	Obs.		Repl.by 2N1865	Cur.		Repl.by 2N2398	Cur.	
STX5/7010	AEIL	67-50	T1167	PHIL	none	T1889	PHIL	none	T2025	PHIL	none	T2579	PHIL	none
STX5/7025	AEIL	67-51	Repl.by 2N386	Obs.		Repl.by 2N1272	Obs.		Repl.by 2N1866	Cur.		Repl.by 2N2399	Cur.	
SU2000	AML	73-78	T1168	PHIL	none	T1890	PHIL	none	T2026	PHIL	none	T2580	PHIL	none
SU2020	AML	73-79	Repl.by 2N387	Obs.		Repl.by 2N1276	Cur.		Repl.by 2N1867	Cur.		Repl.by 2N2362	Cur.	
SU2021	AML	73-80	T1224	PHIL	none	T1891	PHIL	none	T2028	PHIL	none	T2588	PHIL	none
SU2022	AML	73-81	Repl.by 2N344	Cur.		Repl.by 2N1277	Cur.		Repl.by 2N2398	Cur.		Repl.by 2N2360	Cur.	
SU2023	AML	73-82	T1225	PHIL	none	T1891Z	CDLF	none	T2029	PHIL	none	T2589	PHIL	none
SU2024	AML	73-83	Repl.by 2N345	Cur.		Repl.by 2N1277	Cur.		Repl.by 2N2399	Cur.		Repl.by 2N2361	Cur.	
SU2025	AML	73-84	T1250	PHIL	none	T1892	PHIL	none	T2030	PHIL	none	T2610	PHIL	none
SU2026	AML	73-85	Repl.by 2N588	Cur.		Repl.by 2N1278	Cur.		Repl.by 2N2362	Cur.		Repl.by 2N2478	Cur.	
SU2027	AML	73-86	T1251	PHIL	none	T1737	PHIL	none	T2050	PHIL	none	T2611	PHIL	none
SU2028	AML	none	Repl.by 2N499	Cur.		Repl.by 2N1748A	Cur.		Repl.by 2N859	Cur.		Repl.by 2N2479	Cur.	
Repl.by 2N3934	Cur.		T1275	PHIL	none	T1738	PHIL	none	T2057	PHIL	none	T2679	PHIL	none
SU2029	AML	none	Repl.by 2N495	Cur.		Repl.by 2N1749	Cur.		Repl.by 2N858	Cur.		Repl.by 2N2399	Cur.	
Repl.by 2N3935	Cur.		T1276	PHIL	none	T1740	PHIL	none	T2058	PHIL	none	T2691	PHIL	none
SU2030	AML	73-87	Repl.by 2N496	Cur.		Repl.by 2N1427	Cur.		Repl.by 2N860	Cur.		Repl.by 2N2710	Cur.	64
SU2031	AML	73-88	T1282	PHIL	none	T1756	PHIL	none	T2059	PHIL	none	T2788	PHIL	20-64
SU2032	AML	none	Repl.by 2N1428	Obs.		Repl.by 2N1416	Cur.		Repl.by 2N861	Cur.		T2857	PHIL	43-15
Repl.by 2N3921	Cur.		T1312	PHIL	none	T1788	PHIL	none	T2060	PHIL	none	T2878	PHIL	20-57
SU2033	AML	73-89	Repl.by 2N501	Cur.		Repl.by 2N240	Cur.		Repl.by 2N862	Cur.		T2896	PHIL	20-48
SU2034	AML	none	T1314	PHIL	none	T1789	PHIL	none	T2061	PHIL	none	T2945	PHIL	20-81
Repl.by 2N3922	Cur.		Repl.by 2N504	Cur.		Repl.by 2N499	Cur.		Repl.by 2N863	Cur.		T2946	PHIL	20-69
SU2035	AML	73-90	T1322	PHIL	none	T1796	PHIL	27-76	T2062	PHIL	27-76	T3000	PHIL	none
SU2037	AML	73-91	Repl.by 2N503	Cur.		T1806	PHIL	none	Repl.by 2N864	Cur.		Repl.by 2N779A	Cur.	
SYL1182	SYL	none	T1326	PHIL	none	Repl.by 2N1158	Obs.		T2071	PHIL	none	T3002	PHIL	none
Repl.by 2N2354	Cur.		Repl.by 2N598	Cur.		T1807	PHIL	none	Repl.by 2N865	Cur.		Repl.by 2N396A	Cur.	
SYL1326	SYL	33-70	T1327	PHIL	none	Repl.by 2N1204	Cur.		T2088	PHIL	none	T3003	PHIL	none
SYL1327	SYL	34-34	Repl.by 2N1122A	Cur.		T1808	PHIL	none	Repl.by 2N2182	Obs.		Repl.by 2N404	Cur.	
SYL1380	SYL	34-9	T1328	PHIL	none	Repl.by 2N1494	Cur.		T2089	PHIL	none	T3004	PHIL	none
SYL1454	SYL	33-106	Repl.by 2N1122A	Cur.		T1814	PHIL	none	Repl.by 2N2184	Obs.		Repl.by 2N428	Cur.	
SYL1468	SYL	34-10	T1334	PHIL	none	Repl.by 2N1746	Cur.		T2110	PHIL	none	T3005	PHIL	none
SYL1591	SYL	34-11	Repl.by 2N597	Cur.		T1822	PHIL	none	Repl.by 2N600	Obs.		Repl.by 2N598	Cur.	
SYL1592	SYL	24-58	T1342	PHIL	none	Repl.by 2N1472	Obs.		T2119	PHIL	none	TA1575	RCA	none
SYL1617	SYL	34-12	Repl.by 2N502	Cur.		T1826	PHIL	18-13	Repl.by 2N1499A	Cur.		Repl.by 2N270	Cur.	
SYL1655	SYL	28-56	T1343	PHIL	none	T1831	PHIL	none	T2144	PHIL	none	TA1575B	RCA	none
SYL1684	SYL	26-13	Repl.by 2N1118	Cur.		Repl.by 2N1750	Obs.		Repl.by 2N2181	Obs.		Repl.by 2N586	Cur.	
SYL1690	SYL	25-110	T1344	PHIL	none	T1832	PHIL	none	T2145	PHIL	none	TA1614	RCA	none
SYL1697	SYL	25-105	Repl.by 2N1119	Cur.		Repl.by 2N1742	Cur.		Repl.by 2N2183	Obs.		Repl.by 2N301	RCA	none
SYL1717	SYL	26-1	T1346	PHIL	none	T1833	PHIL	none	T2159	PHIL	none	TA1620A	RCA	none
SYL1750	SYL	34-13	Repl.by 2N599	Cur.		Repl.by 2N1743	Cur.		Repl.by 2N599	Cur.		Repl.by 2N647	Cur.	
SYL1986	SYL	none	T1347	PHIL	none	T1850	PHIL	none	T2172	PHIL	none	TA1620B	RCA	none
Repl.by 2N1684	Obs.		Repl.by 2N670	Obs.		Repl.by 2N1411	Cur.		Repl.by 2N395	Cur.		Repl.by 2N649	Cur.	
SYL1987	SYL	none	T1381	PHIL	none	T1851	PHIL	none	T2173	PHIL	none	TA1628	RCA	none
Repl.by 2N1685	Obs.		Repl.by 2N1200	Obs.		Repl.by 2N1752	Cur.		Repl.by 2N317A	Cur.		Repl.by 2N274	Cur.	
SYL2120	SYL	24-59	T1382	PHIL	none	T1858	PHIL	none	T2186	PHIL	none	TA1650A	RCA	none
SYL2189	SYL	27-59	Repl.by 2N1201	Obs.		Repl.by 2N1745	Cur.		Repl.by 2N779A	Cur.		Repl.by 2N331	Cur.	
SYL2245	SYL	none	T1383	PHIL	none	T1859	PHIL	none	T2187	PHIL	none	TA1655B	RCA	none
Repl.by 2N1779	Cur.		Repl.by 2N1199A	Obs.		Repl.by 2N1744	Cur.		Repl.by 2N846A	Cur.		Repl.by 2N579	Cur.	
SYL2246	SYL	none	T1392	PHIL	none	T1866	PHIL	none	T2198	PHIL	none	TA1658	RCA	none
Repl.by 2N1780	Obs.		Repl.by 2N1126	Obs.		Repl.by 2N393	Cur.		Repl.by 2N2086	Cur.		Repl.by 2N370	Cur.	
SYL2248	SYL	none	T1393	PHIL	none	T1871	PHIL	none	T2211	PHIL	none	TA1659	RCA	none
Repl.by 2N1782	Obs.		Repl.by 2N671	Obs.		Repl.by 2N1663	Obs.		Repl.by 2N2048	Cur.		Repl.by 2N371	Cur.	
SYL2249	SYL	none	T1395	PHIL	none	T1885	PHIL	none	T2299	PHIL	none	TA1660	RCA	none
Repl.by 2N1783	Obs.		Repl.by 2N600	Obs.		Repl.by 2N773	Obs.		Repl.by 2N2087	Cur.		Repl.by 2N372	Cur.	
SYL2250	SYL	none	T1396	PHIL	none	T1886	PHIL	none	T2327	PHIL	none	TA1662	RCA	none
Repl.by 2N1784	Obs.		Repl.by 2N1124	Cur.		Repl.by 2N774	Obs.		Repl.by 2N976	Cur.		Repl.by 2N373	Cur.	
SYL2300	SYL	none	T1397	PHIL	none	T1887	PHIL	none	T2329	PHIL	none	TA1682	RCA	none
Repl.by 2N781	Cur.		Repl.by 2N1125	Cur.		Repl.by 2N775	Obs.		Repl.by 2N779B	Obs.		Repl.by 2N561	Cur.	
SYL2301	SYL	none	T1398	PHIL	none	T1888	PHIL	none	T2330	PHIL	none	TA1682A	RCA	none
Repl.by 2N782	Cur.		Repl.by 2N1127	Obs.		Repl.by 2N776	Obs.		Repl.by 2N846B	Obs.		Repl.by 2N1014	Obs.	
SYL2494	SYL	none	T1431	PHIL	none	T1889	PHIL	none	T2331	PHIL	none	TA1697	RCA	none
Repl.by 2N783	Cur.		Repl.by 2N672	Cur.		Repl.by 2N777	Obs.		Repl.by 2N977	Obs.		Repl.by 2N584	Cur.	
SYL3013	SYL	73-7	T1447	PHIL	73-7	T1890	PHIL	none	T2340	PHIL	none	TA1703B	RCA	none
SYL3613	SYL	27-11	Repl.by 2N1429	Cur.		Repl.by 2N778	Obs.		Repl.by 2N2380	Cur.		Repl.by 2N1319	Cur.	
TO003	PHIL	none	T1472	PHIL	none	T1891	PHIL	none	T2351	PHIL	24-60	TA1704	RCA	none
Repl.by 2N207	Cur.		Repl.by 2N1495	Cur.		Repl.by 2N770	Obs.		T2352	PHIL	none	Repl.by 2N581	Cur.	
TO004	PHIL	none	T1473	PHIL	none	T1892	PHIL	none	Repl.by 2N977	Obs.		TA1705	RCA	none
Repl.by 2N207A	Cur.		Repl.by 2N1496	Cur.		Repl.by 2N772	Obs.		T2357	PHIL	none	Repl.by 2N1170	Cur.	
TO005	PHIL	none	T1474	PHIL	none	T1893	PHIL	none	Repl.by 2N2187	Cur.		TA1706	RCA	none
Repl.by 2N207B	Cur.		Repl.by 2N1500	Cur.		Repl.by 2N771	Obs.		T2363	PHIL	none	Repl.by 2N582	Cur.	
TO012	PHIL	none	T1475	PHIL	none	T1895	PHIL	none	Repl.by 2N2185	Cur.		TA1730	RCA	none
Repl.by 2N536	Cur.		Repl.by 2N673	Obs.		Repl.by 2N1158A	Obs.		T2364	PHIL	20-59	Repl.by 2N591	Cur.	
TO014	PHIL	none	T1501	PHIL	none	T1902	PHIL	none	T2392	PHIL	none	TA1731	RCA	none
Repl.by 2N535B	Cur.		Repl.by 2N1118A	Cur.		Repl.by 2N396A								

1. TYPE No. CROSS INDEX

IN TYPE NUMBER SEQUENCE

TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line
TA1782	RCA	none	TA2626	RCA	49-57	TI422	TI	none	TI801	TI	none	TI501	TI	75-92
Repl.by 2N578	Cur.				71-50	Repl.by 2N851	Cur.	none	Repl.by 2N3036	Cur.	none	TI502	TI	75-93
TA1783	RCA	none	TA2658	RCA	none	TI423	TI	none	TI802	TI	none	TI503	TI	none
Repl.by 2N580	Cur.		Repl.by 2N3866	Cur.		Repl.by 2N852	Cur.	none	Repl.by 2N3037	Cur.	none		TIIB	
TA1794	RCA	none	TA2701	RCA	none	TI424	TI	none	TI803	TI	none	Repl.by 2N3702	Cur.	none
Repl.by 2N1169	Cur.		Repl.by 40460	Cur.		Repl.by 2N2389	Cur.	none	Repl.by 2N3038	Cur.	none	TI504	TI	none
TA1796	RCA	none	TA2714	RCA	none	TI425	TI	none	TI804	TI	none		TIIB	
Repl.by 2N644	Cur.		Repl.by 2N4012	Cur.		Repl.by 2N2390	Cur.	none	Repl.by 2N3039	Cur.	none	Repl.by 2N3703	Cur.	none
TA1797	RCA	none	TA2735	RCA	none	TI426	TI	none	TI805	TI	none	TI505	TIIB	none
Repl.by 2N643	Cur.		Repl.by 2N3932	Cur.		Repl.by 2N2391	Obs.	none	Repl.by 2N3040	Cur.	none	Repl.by 2N3993	Cur.	none
TA1798	RCA	none	TA2736	RCA	none	TI427	TI	none	TI806	TI	none	TI506	TI	none
Repl.by 2N645	Cur.		Repl.by 2N3933	Cur.		Repl.by 2N2392	Obs.	none	Repl.by 2N3043	Cur.	none	Repl.by 2N3573	Cur.	none
TA1828	RCA	none	TA2750	RCA	49-58	TI428	TI	none	TI807	TI	none	TI507	TI	none
Repl.by 2N1224	Cur.				71-51	Repl.by 2N2393	Cur.	none	Repl.by 2N3044	Cur.	none	Repl.by 2N3574	Cur.	none
TA1829	RCA	none	TA2786	RCA	none	TI429	TI	none	TI808	TI	none	TI511	TI	73-98
Repl.by 2N1225	Cur.		Repl.by 2N4068	Cur.		Repl.by 2N2394	Cur.	none	Repl.by 2N3045	Cur.	none	TI515	TI	none
TA1830	RCA	none	TA2787	RCA	none	TI430	TI	none	TI809	TI	none	Repl.by 2N3821	Cur.	none
Repl.by 2N1384	Cur.		Repl.by 2N4069	Cur.		Repl.by 2N849	Cur.	none	Repl.by 2N3046	Cur.	none	TI516	TI	none
TA1846	RCA	none	TA2871	RCA	none	TI431	TI	none	TI810	TI	none	Repl.by 2N3822	Cur.	none
Repl.by 2N1177	Cur.		Repl.by 2N4240	Cur.		Repl.by 2N850	Cur.	none	Repl.by 2N3047	Cur.	none	TI517	TI	none
TA1847	RCA	none	TA6200	RCA	60-12	TI432	TI	none	TI811	TI	none	Repl.by 2N3824	Cur.	none
Repl.by 2N1178	Cur.		TA-D93	none	78-106	Repl.by 2N2395	Cur.	none	Repl.by 2N3048	Cur.	none	TI509	TI	43-69
TA1860	RCA	none	TA-M93	none	75-14	TI433	TI	none	TI812	TI	none	TI510	TI	43-70
Repl.by 2N1180	Cur.		TAB101	RADF	78-107	Repl.by 2N2396	Cur.	none	Repl.by 2N3049	Cur.	none	TI515	TI	66-33
TA1861	RCA	none	TAD93	TADI	76-108	TI440	TIIB	31-73	TI813	TI	none	TI5210	TI	none
Repl.by 2N1179	Cur.		TAM93	TADI	75-91	TI442	TI	31-78	Repl.by 2N3050	Cur.	none	Repl.by 2N3551	Cur.	none
TA1881	RCA	none	TC0914	GME	46-91	TI443	TI	25-51	TI814	TI	none	TI5211	TI	none
Repl.by 2N307	Cur.				72-66	TI444	TI	25-49	Repl.by 2N3051	Cur.	none	Repl.by 2N3552	Cur.	none
TA1882	RCA	none	TC0918	GME	43-60	TI445	TI	25-45	TI815	TI	none	TI5316	TI	none
Repl.by 2N955	Cur.		TC2369A	GME	46-100	TI446	TI	21-31	Repl.by 2N3052	Cur.	none	Repl.by 2N2996	Cur.	none
TA1890	RCA	none	TC2483	GME	72-92	TI447	TI	21-32	TI874	TI	none	TI5317	TI	none
Repl.by 2N456	Cur.		TC2484	GME	46-43	TI448	TI	21-33	Repl.by 3N34	Cur.	none	Repl.by 2N3601	Cur.	none
TA1891	RCA	none	TF70	SIHG	33-80	TI450	TI	none	TI876	TI	none	TI5318	TI	none
Repl.by 2N457	Cur.		TF71	SIHG	33-81	TI451	TI	none	TI884	TI	none	Repl.by 2N3603	Cur.	none
TA1920	RCA	none	TF72	SIHG	33-18	Repl.by 2N850	Cur.	none	Repl.by 2N2415	Cur.	none	TI5608	TI	none
Repl.by 2N794	Cur.		TF75	SIHG	31-17	TI457	TI	none	TI885	TI	none	Repl.by 3N74	Cur.	none
TA1920A	RCA	none	TF77	SIHG	52-60	Repl.by 2N2391	Obs.	none	Repl.by 2N2416	Cur.	none	TI5609	TI	none
Repl.by 2N795	Cur.		TF77/30	SIHG	52-61	TI458	TI	none	TI886	TI	none	Repl.by 3N79	Cur.	none
TA1920B	RCA	none	TF80	SIHG	53-5	Repl.by 2N2392	Obs.	none	Repl.by 2N2411	Cur.	none	TI5610	TI	none
Repl.by 2N796	Cur.		TF90/30	SIHG	54-45	TI459	TI	none	TI887	TI	none	Repl.by 2N3035	Cur.	none
TA1938	RCA	none	TF90/60	SIHG	54-46	Repl.by 2N2395	Cur.	none	Repl.by 2N2412	Cur.	none	TI5611	TI	none
Repl.by 2N3118	Cur.		TF251	SIHG	39-17	TI460	TI	none	TI888	TI	none	Repl.by 2N3034	Cur.	none
TA1939	RCA	none	TF252	SIHG	39-18	Repl.by 2N2396	Cur.	none	Repl.by 2N3554	Cur.	none	TI5612	TI	none
Repl.by 2N3118	Cur.		TF260	SIHG	48-21	TI461	TI	none	TI890	TI	none	Repl.by 2N3033	Cur.	none
TA2084	RCA	62-4	TFHP35	FTHF	41-5	Repl.by 2N2393	Cur.	none	Repl.by 2N2861	Cur.	none	TI5613	TI	none
Repl.by 2N2938	Cur.		TFHP36	FTHF	41-9	TI462	TI	none	TI891	TI	none	Repl.by 2N2639	Cur.	none
TA2235A	RCA	none	TFHP45	FTHF	52-68	Repl.by 2N2394	Cur.	none	Repl.by 2N2862	Cur.	none	TI5614	TI	none
Repl.by 2N2405	Cur.					TI474	TI	none	TI896	TI	none	Repl.by 2N2640	Cur.	none
TA2275	RCA	none	THP46	FTHF	52-69	Repl.by 2N929	Cur.	none	Repl.by 2N797	Cur.	none	TI5615	TI	none
Repl.by 2N2895	Cur.		THP47	FTHF	52-70	TI475	TI	none	TI897	TI	none	Repl.by 2N2641	Cur.	none
TA2276	RCA	none	THP61	FTHF	41-3	Repl.by 2N930	Cur.	none	Repl.by 2N964	Cur.	none	TI5616	TI	none
Repl.by 2N2896	Cur.		THP62	FTHF	41-4	TI480	TI	none	TI898	TI	none	Repl.by 2N2642	Cur.	none
TA2277	RCA	none	THP106	FTHF	41-35	Repl.by 2N339	Cur.	none	TI899	TI	none	TI5617	TI	none
Repl.by 2N2897	Cur.		THP169	FTHF	73-92	TI490	TI	none	Repl.by 2N985	Cur.	none	Repl.by 2N2643	Cur.	none
TA2278	RCA	none	THP170	FTHF	73-93	Repl.by 2N780	Cur.	none	TI899	TI	none	TI5618	TI	none
Repl.by 2N2898	Cur.		THP171	FTHF	73-94	TI602	TI	none	Repl.by 2N2173	Cur.	none	Repl.by 2N2644	Cur.	none
TA2279	RCA	none	THP172	FTHF	73-95	Repl.by 2N997	Obs.	none	TI903	TI	none	TI5619	TI	none
Repl.by 2N2899	Cur.		THP501	SESC	24-3	TI605	TI	none	Repl.by 2N1149	Cur.	none	Repl.by 2N2802	Cur.	none
TA2280	RCA	none	THP502	SESC	24-4	Repl.by 2N2432	Cur.	none	TI904	TI	none	TI5620	TI	none
Repl.by 2N2900	Cur.		TI155	TI	76-109	TI607	TI	none	Repl.by 2N1150	Cur.	none	Repl.by 2N2803	Cur.	none
TA2301	RCA	none	TI320	TI	24-64	Repl.by 2N2692	Cur.	none	TI904A	TI	none	TI5621	TI	none
Repl.by 40264	Cur.		TI321	TI	24-68	TI607A	TI	none	Repl.by 2N1151	Cur.	none	Repl.by 2N2804	Cur.	none
TA2307	RCA	none	TI366	TI	53-69	Repl.by 2N2692	Cur.	none	TI905	TI	none	TI5622	TI	none
Repl.by 2N3375	Cur.		TI366A	TI	56-48	TI608	TI	none	Repl.by 2N1152	Cur.	none	Repl.by 2N2805	Cur.	none
TA2333	RCA	none	TI367	TI	53-70	Repl.by 3N74	Cur.	none	TI910	TI	none	TI5623	TI	none
Repl.by 2N2857	Cur.		TI367A	TI	56-47	TI609	TI	none	Repl.by 2N1153	Cur.	none	Repl.by 2N2806	Cur.	none
TA2359A	RCA	none	TI368	TI	53-71	Repl.by 3N76	Cur.	none	TI951	TI	none	TI5624	TI	none
Repl.by 2N2873	Obs.		TI368A	TI	56-48	TI610	TI	none	Repl.by 2N1154	Cur.	none	Repl.by 2N2807	Cur.	none
TA2388	RCA	none	TI369	TI	53-72	Repl.by 2N3035	Cur.	none	TI952	TI	none	TI5690	TI	73-97
Repl.by 2N3229	Cur.		TI369A	TI	56-49	TI611	TI	none	Repl.by 2N1155	Cur.	none	TI5712	TI	none
TA2402A	RCA	none	TI370	TI	53-73	Repl.by 2N3034	Cur.	none	TI953	TI	none	Repl.by 2N2413	Cur.	none
Repl.by 2N3054	Cur.		TI370A	TI	56-50	TI612	TI	none	Repl.by 2N1156	Cur.	none	TI5802	TI	none
TA2403A	RCA	none	TI376	TI	27-60	Repl.by 2N3033	Cur.	none	TI1392	TI	none	Repl.by 2N3037	Cur.	none
Repl.by 2N3055	Cur.		TI377	TI	27-61	TI613	TI	none	Repl.by 2N2410	Cur.	none	TI5803	TI	none
TA2404	RCA	none	TI378	TI	18-105	Repl.by 2N2639	Cur.	none	TI1722A	TI	none	Repl.by 2N3038	Cur.	none
Repl.by 2N2953	Cur.		TI379	TI	18-99	TI614	TI	none	Repl.by 2N1722A	Cur.	none	TI5804	TI	none
TA2458	RCA	none	TI380	TI	18-98	Repl.by 2N2640	Cur.	none	TI1724A	TI	none	Repl.by 2N3039	Cur.	none
Repl.by 2N3439	Cur.		TI381	TI	18-100	TI615	TI	none	Repl.by 2N1724A	Cur.	none	TI5805	TI	none
TA2462	RCA	none	TI382	TI	18-101	Repl.by 2N2641	Cur.	none	TI2150	TI	none	Repl.by 2N3040	Cur.	none
Repl.by 2N3118	Cur.		TI383	TI	18-102	TI616	TI	none	Repl.by 2N2150	Cur.	none	TI5806	TI	none
TA2468A	RCA	none	TI384	TI	18-103	Repl.by 2N2642	Cur.	none	TI2151	TI	none	Repl.by 2N3043	Cur.	none
Repl.by 2N3442	Cur.		TI385	TI	28-98	TI617	TI	none	Repl.by 2N2151	Cur.	none	TI5807	TI	none
TA2469A	RCA	none	TI386	TI	28-99	Repl.by 2N2643	Cur.	none	TI3000	TI	none	Repl.by 2N3044	Cur.	none
Repl.by 2N3441	Cur.		TI387	TI	28-100	TI618	TI	none	Repl.by 2N3328	Cur.	none	TI5808	TI	none
TA2470	RCA	none	TI396	TI	28-101	Repl.by 2N2644	Cur.	none	TI3001	TI	none	Repl.by 2N3		

1. TYPE No. CROSS INDEX

TYPE No.				IN TYPE NUMBER SEQUENCE				
TYPE No.	MFRS	Pq&Line	TYPE No.	MFRS	Pq&Line	TYPE No.	MFRS	Pq&Line
TIX898	TI	none	TK31C	STCB	30-82	TR43A	ITC	27-89
Repl.by 2N797 Cur.			TK33C	STCB	34-27	TR63	ITC	24-71
TIX1392	TI	none	TK34C	STCB	25-18	TR64	ITC	24-74
Repl.by 2N2410 Cur.			TK35	STCB	none	TR65	ITC	24-83
TIX1393	TI	none	Repl.by ASY56 Cur.			TR77	ITC	19-15
Repl.by 2N2410 Cur.			TK35C	STCB	30-45	TR81	ITC	27-64
TIX2000	TI	24-39	TK36	STCB	none	TR87	ITC	21-15
TIX2150	TI	none	Repl.by ASY57 Cur.			TR88	ITC	21-3
Repl.by 2N2150 Cur.			TK36C	STCB	30-55	TR104	ITC	27-81
TIX2151	TI	none	TK37	STCB	none	TR105	ITC	19-16
Repl.by 2N2151 Cur.			Repl.by ASY58 Cur.			TR109	ITC	19-62
TIX3015	TI	none	TK37C	STCB	30-71	TR123	ITC	28-49
Repl.by 2N3570 Cur.			TK38	STCB	none	TR139	ITC	19-18
TIX3016	TI	43-73	Repl.by ASY59 Cur.			TR167	ITC	33-58
TIX3016A	TI	43-74	TK38C	STCB	30-86	TR182	ITC	33-86
TIX3023	TI	29-22	TK40	STCB	30-29	TR183	ITC	33-92
TIX3024	TI	22-56	TK40A	STCB	29-73	TR184	ITC	33-98
TIX3032	TI	22-41	TK40C	STCB	30-34	TR193	ITC	33-27
TIX3033	TIIB	none	TK41	STCB	29-101	TR194	ITC	33-24
Repl.by 2N3418 Cur.			TK41C	STCB	30-11	TR211	ITC	33-28
TIX3034	TI	none	TK42	STCB	30-21	TR212	ITC	33-32
Repl.by 2N3419 Cur.			TK42C	STCB	30-12	TR213	ITC	33-56
TIX3035	TIIB	none	TK44	STCB	none	TR214	ITC	33-109
Repl.by 2N3420 Cur.			Repl.by ASY51 Cur.			TR215	ITC	27-82
TIX3036	TIIB	none	TK44C	STCB	27-77	TR216	ITC	33-25
Repl.by 2N3421 Cur.			TK45	STCB	none	TR217	ITC	19-63
TIXA01	TI	28-19	Repl.by ACY29 Cur.			TR218	ITC	19-19
TIXA02	TI	28-20	TK45C	STCB	30-22	TR269	ITC	28-10
TIXA03	TI	28-33	TK46	STCB	none	TR381	ITC	29-64
TIXA04	TI	28-34	Repl.by ASY50 Cur.			TR382	ITC	29-74
TIXA05	TI	28-35	TK46C	STCB	29-95	TR386	ITC	28-50
TIXL58	none	none	TK47C	STCB	29-86	TR460	ITC	28-66
Repl.by TIL58 Cur.			TK48C	STCB	27-78	TR461	ITC	28-9
TIXM01	TI	22-34	TK49C	STCB	24-61	TR526	ITC	28-11
TIXM02	TI	22-25	TK70	STCB	44-107	TR527	ITC	28-11
TIXM03	TI	22-32	TK71	STCB	44-105	TR758A	ITC	24-69
TIXM04	TI	22-32	TK72	STCB	44-108	TR759	ITC	24-105
TIXM05	TI	22-20	TK200A	STCB	65-104	TR760	ITC	19-101
TIXM06	TI	22-40	TK201A	STCB	65-105	TR761	ITC	27-12
TIXM07	TI	22-35	TK202A	STCB	none	TR762	ITC	20-9
TIXM08	TI	22-31	Repl. by 2N2234 Cur.			TR763	ITC	24-89
TIXM10	TIIB	22-49	TK203A	STCB	none	TR764	ITC	24-109
TIXM11	TIIB	22-50	Repl. by 2N2235 Cur.			TR792	ITC	24-109
TIXM12	TI	50-7	TK250A	STCB	38-10	TR801	ITC	24-29
TIXM13	TI	19-4	TK251A	STCB	38-11	TR802	ITC	24-30
TIXM14	TI	21-24	TK252A	STCB	none	TR803	ITC	24-35
TIXM15	TI	21-25	Repl. by 2N2236 Cur.			TR804	ITC	21-4
TIXM16	TI	21-22	TK253A	STCB	none	TRM13	ITC	24-38
TIXM17	TI	21-23	Repl. by 2N2237 Cur.			TRM14	ITC	21-5
TIXM18	TI	21-27	TK254A	STCB	48-91	TRM15	ITC	26-57
TIXM19	TI	21-28	TK255A	STCB	45-52	TRM16	ITC	26-58
TIXM20	TI	22-18	TK256A	STCB	45-53	TRM17	ITC	26-59
TIXM201	TI	22-18	TK257A	STCB	45-88	TRM21	ITC	26-80
TIXM202	TI	22-19	TK258A	STCB	45-89	TRM34	ITC	19-75
TIXM203	TI	22-33	TK259A	STCB	71-92	TRM81	ITC	21-6
TIXM204	TI	22-27	TK264A	STCB	45-90	TRS100A	ITC	48-38
TIXM205	TI	22-28	TK400A	STCB	71-93	TRS5011C	ITC	60-69
TIXM206	TI	22-29	TK401A	STCB	45-54	TRS6011C	ITC	60-70
TIXM207	TI	22-16	TK402A	STCB	53-87	TRS1004LP	ITC	61-28
TIXM301	TI	50-12	TK403A	STCB	53-88	TRS1005LP	ITC	62-66
TIXP07	TI	59-55	TMT896	TEC	53-89	TRS1204LP	ITC	61-29
TIXS09	TI	43-71	TMT897	TEC	53-90	TRS1205LP	ITC	62-67
TIXS11	TI	50-39	TMT898	TEC	41-76	TRS1404LP	ITC	61-30
TIXS28	TI	43-54	TMT899	TEC	41-84	TRS1405LP	ITC	62-68
TIXS29	TI	43-42	TMT830	TEC	41-62	TRS1604LP	ITC	61-31
TIXS30	TI	43-43	TMT841	TEC	41-63	TRS1605LP	ITC	62-69
TIXS31	TI	43-44	TMT842	TEC	41-68	TRS1804LP	ITC	61-32
TIXS33	TI	none	TMT843	TEC	41-64	TRS1805LP	ITC	62-70
Repl. by TIS39 Cur.			TMT1131	TEC	41-69	TRS2004LP	ITC	61-33
TIXS37	TIIB	none	TMT1132	TEC	35-65	TRS2005LP	ITC	62-71
Repl. by TIS37 Cur.			TMT1543	TEC	35-60	TRS2254LP	ITC	61-34
TIXS41	TI	none	TMT2427	TEC	39-21	TRS2255LP	ITC	62-72
Repl. by 2N4859 Cur.			TN51	SSP	39-22	TRS2504LP	ITC	61-35
TIXS42	TI	none	TN52	SSP	68-108	TRS2505LP	ITC	62-73
Repl. by TIS42 Cur.			TN55	SSP	62-65	TRS2754LP	ITC	61-36
TJ1	STCB	29-50	Repl. by 2N4383 Cur.			TRS2755LP	ITC	62-74
TJ2	STCB	29-51	TN56	SSP	70-23	TRS3014LP	ITC	61-37
TJ3	STCB	29-52	Repl. by 2N4384 Cur.			TRS3015LP	ITC	60-98
TK20	STCB	none	Repl. by ASY66 Obs.			TRS3016LP	ITC	62-75
TK20A	STCB	25-6	TN72	SSP	61-109	TRS3255LP	ITC	60-97
TK20B	STCB	27-32	TN301	SSP	69-109	TRS3504LP	ITC	62-76
TK20C	STCB	73-16	TN302	SSP	61-110	TRS3505LP	ITC	61-38
TK21	STCB	30-43	TN303	SSP	70-24	TRS3754LP	ITC	62-77
TK21A	STCB	24-93	TN304	SSP	63-47	TRS3755LP	ITC	61-39
TK21B	STCB	27-21	TP1	STCB	70-8	TRS4014LP	ITC	62-78
TK21C	STCB	73-16	TP2	STCB	63-48	TRS4015LP	ITC	60-98
TK23	STCB	30-6	TR03	ITC	70-9	TRS4016LP	ITC	62-79
TK23A	STCB	29-61	TR05	ITC	63-49	TRS4018LP	ITC	60-99
TK23C	STCB	30-7	TR07	ITC	70-10	TRS4254LP	ITC	61-41
TK24	STCB	none	TR08	ITC	69-62	TRS4255LP	ITC	62-80
Repl. by ASY64 Obs.			TR09	ITC	27-62	TRS4405S	ITC	none
TK24A	STCB	24-97	TR10	ITC	27-106	Repl. by 2N3861 Cur.		61-42
TK24B	STCB	27-26	TR11	ITC	33-77	TRS4504LP	ITC	62-81
TK24C	STCB	73-17	TR12	ITC	33-78	TRS4505LP	ITC	61-43
TK25	STCB	none	TR13	ITC	33-79	TRS4754LP	ITC	62-82
Repl. by ASY60 Obs.			TR14	ITC	33-88	TRS4755LP	ITC	60-100
TK25A	STCB	25-17	TR15	ITC	33-83	TRS5015LC	ITC	60-101
TK25B	STCB	27-33	TR16	ITC	27-63	TRS5018LC	ITC	60-102
TK25C	STCB	73-18	TR17	ITC	26-52	TRS8016LC	ITC	60-103
TK26	STCB	30-44	TR18	ITC	20-110	TS1	STCB	19-68
TK26A	STCB	24-94	TR19	ITC	21-1	TS2	STCB	19-69
TK26B	STCB	27-22	TR20	ITC	21-2	TS3	STCB	19-70
TK27	STCB	30-53	TR21	ITC	26-53	TS7	STCB	21-16
TK27A	STCB	24-98	TR22	ITC	26-54	TS8	STCB	21-17
TK27B	STCB	27-27	TR23	ITC	26-55	TS9	STCB	27-15
TK28	STCB	30-74	TR24	ITC	21-11	TS13	STCA	26-85
TK28C	STCB	30-75	TR25	ITC	26-102	TS14	STCA	26-88
TK30	STCB	30-85	TR26	ITC	24-82	TS15	STCA	21-7
TK30C	STCB	30-86	TR27	ITC	26-56		STCB	
TK31	STCB	30-81	TR28	ITC	19-88		STCB	

2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	TYPE No.	MAX. COLL. DISS. @25°C (W)	DERATE fab (Hz)	TEMP. IN FREE AIR W/C	M E X P	ABS MAX RATINGS @25°C				MAX. I _{cb} @MAX V _{cb} (A)	TYPICAL 'h' PARAMETERS						Cob (F)	DESCRIPTION		CODE
						V _{bc} (V)	V _{ce} (V)	V _{be} (V)	I _c (A)		BIAS			COMMON EMITTER				STRUC-TURE	DWG. No.	
											V _{cb} (V)	I _e (A)	h _{fe}	h _{oe} (mhos)	h _{ie} (Ω)	h _{re} X.0001				
1#	MDS35	30m	80MΔ		#S	20	20	2.0	5.0u	6.0	1.0m	40	Δ			4p	MDΔ	TO1		
2#	HF100	30m	250M		#J	15	50	50m	15u								MD			
3#	HF200	30m	320M		#J	30	50	50m	15u	10	3.0m	8.5				1.3p	MDT			
4	TIXM13	30m	1.0GΔ	1.2m	#A	15	7.0	30	6.0u	5.0	3.0m	15	Δ			1.4p	PE	X55	A	
5	2N82	35m			#A	20			15m											
6	2N1398	35m			#A				5.0m								ME	R34		
7	2N1399	35m			#A				5.0m								ME	R34		
8	2N1400	35m			#A				5.0m								ME	R34		
9	2N1401	35m			#A				5.0m								ME	R34		
10	2N1401A	35m			#A				5.0m								ME	R34		
11	2N1402	35m			#A				5.0m								ME	R34		
12#	2S96	35m			#S	20			10m											
13#	2S97	35m			#S	20			10m											
14#	2S98	35m			#S	20			10m											
15	TR77	35m	.70M		#A	25			15m	4.0	70m	55				40p	A			
16	TR105	35m	.75M		#A	25			15m	4.0	70m	55				17p	A			
17	2N79	35m	780k	3.3m	#A	30			50m	6.0	1.0m					20u	1.7k			
18	TR139	35m	4.5M		#A	16			15m	6.0	50m	45				9.5p	A			
19	TR218	35m	4.5M		#A	16			15m	6.0	50m	45				9.5p	A			
20#	2S31	35m	5.0M		#S	12			10m							9.5				
21#	2S30	35m	1.0M		#S	12			10m							9.5				
22	2N267	35m	132M		#A	35		1.0	10m	16u						1.7p	A			
23#	ES3120	36m	.30M	1.8m	#J	30	15		10m	6.0u	5.0	1.0m				50p	A	TO5		
24#	ES3121	36m	.40M	1.8m	#J	30	15		10m	6.0u	5.0	1.0m				50p	A	TO5		
25#	ES3122	36m	.60M	1.8m	#J	30	15		10m	6.0u	5.0	1.0m				50p	A	TO5		
26#	ES3123	36m	.80M	1.8m	#J	30	15		10m	6.0u	5.0	1.0m				50p	A	TO5		
27#	ES3124	36m	1.0M	1.8m	#J	30	15		10m	6.0u	5.0	1.0m				50p	A	TO5		
28#	ES3125	36m	1.5M	1.8m	#J	30	15		10m	6.0u	5.0	1.0m				50p	A	TO5		
29#	ES3126	36m	2.0M	1.8m	#J	30	15		10m	6.0u	5.0	1.0m				50p	A	TO5		
30#	2SB91	40m		769u	#J	18			5.0m	14u	6.0	1.0m				200nb	30	2.5		
31#	2SB97	40m		769u	#J	18			5.0m	14u	6.0	1.0m								
32	CK891	40m			#A	12			50m	5.5u	1.5	.50m					FAT	u11		
33	CK892	40m			#A	12			50m	5.5u	1.5	.50m					FAT	u11		
34#	AC164	40m	10k	833u	#J	10	10	.50	30m	2.0u	.50	200u	40	Δ			A	u20		
35#	2SB90	40m	1.0M	3.0m	#J	25			50m	14u	6.0	1.0m				200nb	30	2.5		
36#	2SB321	40m	6.0M	769u	#J	12			50m	4.0u	1.5	500u	100			20u	4.0k	6.0		
37#	2SB322	40m	6.0M	769u	#J	12			50m	4.0u	1.5	500u	50			19u	3.0k	5.0		
38#	2SB323	40m	6.0M	769u	#J	12			50m	4.0u	1.5	500u	100			20u	4.0k	6.0		
39	JAN2N300	40m	85MΔ		#S	7.0	4.5	5.0	20m	3.0u	3.0	500u	10	Δ		5.0u	2b	90		
40	2N623	40m	90M	1.0m	#J	30			10u	6.0	2.0m	35				3.5p	Δ			
41	T1905†	40m	120M	667u	#S	12	10	2.0	50m	100u	.50	10m	50			5p	MA		TO9	
42#	OC330	45m	800k	1.5m	#J		15		35m	5.0	1.0m	24				25u	1.0k	6.0		
43#	OC360	45m	800k	1.5m	#J		15		35m	5.0	1.0m	70				30u	1.2k	7.5		
44#	OC340	45m	1.1M	1.5m	#J		15		35m	5.0	1.0m	70				45u	1.8k	11		
45#	OC350	45m	2.0M	1.5m	#J		8.0		35m	5.0	1.0m	150				50u	4.5k	13		
46	2N38A	50m			#A	20			8.0m	12u	3.0	.50m	18							
47	2N41	50m			#A	25			15m	10u			40	Δ						
48	2N46	50m			#A	25			15m	10u	6.0	1.0m	40							
49	2N62	50m			#A	35			20m	10u										
50	2N81	50m			#A	20			15m	16u	6.0	1.0m	20	Δ		80u	2.5k			
51#	2SB184	50m		833u	#J	12		2.5	20m	12u	2.0	5.0m	100							
52	1032	50m			#A	25			40m	10u			12							
53	1033	50m			#A	25			40m	10u			24							
54	1034	50m			#A	25			40m	10u			41							
55	1035	50m			#A	25			40m	10u			61							
56	1036	50m			#A	25			40m	10u			86							
57	1320	50m			#A	25			40m	10u			12							
58	1330	50m			#A	25			40m	10u			24							
59	1340	50m			#A	25			40m	10u			41							
60	1350	50m			#A	25			40m	10u			61							
61	1360	50m			#A	25			40m	10u			86							
62	TR109	50m			#A	25			70m	10u	1.0	50m	70							
63	TR217	50m			#A	25			70m	10u	1.0	50m	70							
64#	VB709	50m			#J	50			50m	10u	10	50m	100							
65#	XB121	50m			#A	105		50	100m	14u	.35	5.0m	60	†					TO5	
66#	XFT2	50m			#A		6.0		150u		.50m	50								
67#	OC601	50m	.40M		#A	50			20m	10u	4.5	1.0m	15							
68#	TS1	50m	.50M		#A				10u	1.5	2.0m	10								
69#	TS2	50m	.50M		#A				10u	1.5	2.0m	30								
70#	TS3	50m	.50M		#A				10u	1.5	2.0m	50								
71#	2S32	50m	.60M		#S	20			10m	15u			27							
72#	2S33	50m	.60M		#S	20			50m	15u			70							
73	CTP1320	50m	600k	1.8m	#J	25			40m	6.0	1.0m	13				35p	A			
74	OC32	50m	.60M		#J	25			10m	6.0u	5.0	1.0m	13							
75	TRM34	50m	600k	1.0m	#J	40			50m	5.0u	6.0	1.0m	40							
76	2N591/5	50m	700k	2.9m	#A	32			40m	7.0u	1.2	2.0m	70							
77#	2SB183	50m	70M	833u	#	12		10	20m	10u	4.0	.50m	65			11.u	3.9k	3.8		
78#	2T11	50m	70M		#A	25			10m	20u			12							
79#	2T12	50m	70M		#A	25			10m	10u			19							
80#	2T13	50m	70M		#A	25			10m	10u			32							
81#	VB701	50m	70M		#J	30			50m	9.0u	4.0	1.0m	80							
82#	VB704	50m	70M		#J	30			50m	10u	6.0	.70m	50							
83	2N47	50m	.80M		#A	35			20m	5.0u			40							
84	2N48	50m	.80M		#A	35			20m	5.0u			32							
85	2N49	50m	.80M		#A	35			20m	5.0u			40							
86	CTP1330	50m	800k	1.8m	#J	25			40m	4.0u	6.0	1.0m	25			33p	A			
87	OC33	50m	.80M		#J	25			10m	6.0u	5.0	1.0m	24							
88	TR35	50m	800k	1.0m	#J	40			50m	5.0u	6.0	1.0m	40							
89	2N76	50m	1.0M		#A	20			10m	5.0u			19							
90	CTP1340	50m	1.0M	1.8m	#J	25			40m	4.0u	6.0	1.0m	45							
91#	OC602	50m	1.0M	1.6m	#J	20		10	50m	20u	1.0	2.0m	40			750u	750	5.5		
92	OC34	50m	1.1M		#J	25			10m	6.0u	5.0	1.0m	39							
93#	OC603	50m	1.1M	1.6m	#J	20		10	50m	20u	1.0	2.0m	50			86u				

2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	TYPE No.	MAX. COLL. DISS. @25°C (W)	fab	DERATE IN FREE AIR W/C	TEMPERATURE M E X P	ABS MAX RATINGS @25°C				MAX. I _{cb0} @MAX V _{cb} (A)	TYPICAL 'h' PARAMETERS			COMMON EMITTER			Cob (F)	DESCRIPTION	L C O A D E
						BV _{cb0} (V)	BV _{ceo} (V)	BV _{eco} (V)	I _c (A)		V _{cb} (V)	I _e (A)	h _{fe}	h _{oe} (mhos)	h _{ie} (Ω)	h _{re} X.0001			
1#	37T1	50m	10M		#S	15	6.0	50m	6.0	5.0	1.0m	60				14p			
2	1410	50m	10.MΔ		*A	10			10u	6.0	1.0m					13			
3	CTP1410	50m	10.M			10			2.0u	6.0	1.0m					13p	A	R26	
4#	GFT43A	50m	10M	1.0m	∅J	15		.80	10m	10u	6.0	1.0m	35	30u	30u	3.5p	MD	R36	
5#	GFT44/15E	50m	10.M	1.0m	∅J	15										13p	∅		
6#	2SA180	50m	12.M		∅J	15		.15	10m	10u	6.0	1.0m	70			13p	A	TO1	
7	2N72	50m	20.M		*A	40		.50	8.0m	1.6m	6.0	1.0m							
8#	GFT43B	50m	30M	1.0m	∅J	15		.80	10m	10u	6.0	1.0m	70	30u	30u	3.5p	MDΔ	R36	
9	TR763	50m	30.M		∅J	6.0			1.0u	4.5	1.0m	200				14p	A		
10#	2SA285	50m	40.M		∅J	18		.50	5.0m	15u	6.0	1.0m	70			2.0p	D	TO44	
11#	GFT43	50m	40M	1.0m	∅J	15		.80	10m	10u	6.0	1.0m	50			3.5p	∅	R36	
12#	2SA286	50m	50.M		∅J	18		.50	5.0m	15u	6.0	1.0m	70			2.0p	D	TO44	
13	2N2180	50m	60.M	867u	#J	15		.15	5.0m	5.0u	25.0	1.0m	100	Δ		3.0p	MA	TO24	
14#	2SA287	50m	60.M		∅J	18		.50	5.0m	15u	6.0	1.0m	70			2.0p	D	TO44	
15#	GFT42B	50m	80.M	1.0m		15										2.0p	D		
16#	AF132	50m	90M	1.0m	∅J	20		2.0	1.0	10m	8.0u	6.0	1.0m	75		AD∅	R38		
17#	GFT42A	50m	90.M	1.0m		15										D			
18	2N3770	50m	100MΔ	667u	#S	10		6.0	.50	50m	10u	6.0	1.0m	70	Δ	3p	∅	TO18	
19#	AF131	50m	100M	1.0m	∅J	20		2.0	1.0	10m	8.0u	6.0	1.0m	75		AD∅	R38		
20#	AF133	50m	100M	1.0m	∅J	20		2.0	1.0	10m	8.0u	6.0	1.0m	35		AD∅Δ	R38		
21#	AF129	50m	150M	1.0m	∅J	20		2.0	1.0	10m	8.0u	6.0	1.0m	50		AD†	R38		
22#	AF130	50m	150M	1.0m	∅J	20		2.0	1.0	10m	8.0u	6.0	1.0m	60		AD†	R38		
23#	GFT41	50m	150M	1.0m		8.0										D			
24#	MDS381	50m	280MΔ		#S	15		8.0	2.0	50m	5.0u	5.0	1.0m	20	Δ	4.0p	MDΔ	TO18	
25#	2SA242	50m	290MΔ	1.0m	∅J	18		2.0	4.0	5.0m	13u	6.0	1.0m	100		1.0p	AD	TO7	
26#	2SA243	50m	350MΔ	1.0m	∅J	18		2.0	4.0	5.0m	13u	6.0	1.0m	100		1.0p	AD	TO7	
27#	2SA28	55m	1.1m		∅J	18			.50	5.0m	10u	6.0	1.0m	30			A	TO44	
28#	2SA28	55m			∅J	18			.50	5.0m	8.0u	6.0	1.0m	80	Δ		D	TO44	
29#	2SA79	55m	6.0M	1.1m	∅J	18		.12	200m	12u	1.5	1.0m	70			6p	Δ	TO44	
30#	2SA73	55m	35M	1.1m	∅J	18		.50	5.0m	10u	6.0	1.0m	49			1.9p	D	TO44	
31#	2SA236	55m	35M	1.1m	∅J	18		.50	5.0m	12u	6.0	1.0m	50			1.7p	D	TO44	
32#	2SA237	55m	35M	1.1m	∅J	18		.50	5.0m	12u	6.0	1.0m	50			1.7p	D	TO44	
33#	2SA72	55m	40M	1.1m	∅J	18		.50	5.0m	10u	6.0	1.0m	49			1.9p	D	TO44	
34#	2SA93	55m	45M	1.1m	∅J	18		.50	5.0m	10u	4.5	1.0m	49			2.0p	D	TO44	
35#	2SA433	55m	45.M		∅J	18		.50	5.0m	8.0u	6.1	1.0m	60			2.0p	D	TO44	
36#	2SA92	55m	50M	1.1m	∅J	18		.50	5.0m	10u	4.5	1.0m	70			3.5p	D	TO44	
37#	2SA60	55m	55M	1.1m	∅J	18		.50	5.0m	10u	6.0	1.0m	70			2.0p	D	TO44	
38#	2SA59	55m	65M	1.1m	∅J	18		.50	5.0m	10u	9.0	1.0m	70			1.9p	D	TO44	
39#	2SA58	55m	75M	1.1m	∅J	18		.50	5.0m	10u	9.0	1.0m	80			1.7p	D	TO44	
40#	2SA57	55m	85M	1.1m	∅J	18		.12	5.0m	10u	9.0	1.0m	80			1.7p	D	TO44	
41#	2SA175	55m	85M	1.1m	∅J	18		.50	5.0m	10u	9.0	1.0m	80			2.5p	D	TO44	
42#	2SA77	55m	10M	1.1m	∅J	18		.50	5.0m	10u	6.0	1.0m	70			1.7p	D	TO44	
43#	2SA76	55m	130M	1.1m	∅J	18		.50	5.0m	10u	6.0	1.0m	70			1.7p	D	TO44	
44#	AC169	60m		5.0m	*J	2.0		2.0	30m	7.0u	5.0	1.0m	20	Δ		A	TO1		
45#	MD5011	60m			#S	15		2.0	50m	5.0u	5.0	1.0m	20	Δ		5p	MDA	TO1	
46#	MD501B†	60m			#S	15		2.0	50m	5.0u	5.0	1.0m	20	Δ		3p	MDA	TO1	
47#	MDS341	60m			#S	20		2.0	50m	3.0u	5.0	1.0m	20	Δ		3p	MDA	TO1	
48	T2996	60m			#S	20		2.0	50m	10u	1.0	2.0m	10	Δ		3p	MDA	TO12	
49#	989T1	60m	800k		*A	24		9.0	50m	40u	5.0	1.0m	24		1.0ub	29	4.0	35p	R26
50#	987T1	60m	1.0M		*A	24		9.0	200m	40u	1.0	1.0m	36	Δ	2.0	29	4.0	35p	R26
51#	990T1	60m	1.0M		*A	24		9.0	50m	40u	5.0	1.0m	36	Δ	800nb	29	4.0	35p	R26
52#	986T1	60m	1.2M		*A	24		9.0	200m	40u	1.0	1.0m	34	Δ	2.6	29	4.0	35p	R26
53#	989T1	60m	1.2M		*A	24		9.0	50m	40u	5.0	1.0m	34	Δ	600nb	29	4.0	35p	R26
54#	941T1	60m	1.2M		*A	24		9.0	200m	40u	1.0	1.0m	73	Δ	4.0	29	4.0	35p	R26
55#	985T1	60m	1.5M		*A	24		9.0	50m	40u	5.0	1.0m	110		500nb	29	4.0	35p	R26
56#	992T1	60m	1.5M		*A	24		9.0	50m	40u	5.0	1.0m	75		500nb	29	4.0	35p	R26
57	T2578	60m	2.4M	769u	#S	20		2.0	50m	10u	5.0	1.0m	33	†		1.5p	ME	TO12	
58#	2NJ51	60m	5.0M	769u	#A	12			10m	10u	9.0	2.0m	50			37p	AΔ	R18	
59	T2364	60m	5.0M	769u	#S	20		2.0	50m	10u	9.0	2.0m	10	Δ		9.5p	MD∅	R34	
60#	2NJ50	60m	10.M		#A	12			10m	15u	9.0	60m	75			11p	A	R18	
61#	2SA51	60m	14M	1.2m	∅J	10		.12	5.0m	15u	6.0	1.0m	70	†		1.5p	MDA	TO1	
62	2N2059	60m	50.M	1.3m	#J	10		2.0	50m	5.0u	5.0	1.0m	35	†		1.5p	MDA	TO1	
63#	MDS32	60m	60M		#S	20		1.0	50m	5.0u	2.0	1.0m	50	Δ		1.5p	MDA	TO1	
64	T2788	60m	90.M	769u	#S	20		2.0	50m	10u	1.0	2.0m	10	Δ		1.5p	MD∅	TO12	
65#	2SA349	60m	100M	1.0m	#J	20		2.0	50m	30u	6.0	3.0m	10	Δ		1.5p	ME	TO17	
66#	MDS311	60m	100MΔ		#S	9.0		8.0	1.0	50m	5.0u	3.0	50m	20	Δ		1.5p	MDA	TO1
67#	MDS361	60m	100MΔ		#S	20		2.0	100m	5.0u	3.0	1.0m	30	Δ		3.0p	MDA	TO18	
68#	MDS40	60m	100MΔ		#S	20		2.0	50m	5.0u	2.0	1.0m	35	Δ		4p	MD	TO1	
69	T2946	60m	150M	769u	#S	20		2.0	50m	10u	5.0	2.0m	10	Δ		4p	MD∅	TO12	
70	2N1500/181	60m	175M	769u	#S	15		2.0	50m	1.5u	5.0	1.0m	70	†		1.5p	MD	TO18	
71	2N588A	60m	200M	Δ	#S	15		1.5	50m	15u	3.0	1.0m	30	Δ		1	∅	TO1	
72#	2SA348	60m	200M	1.0m	#J	20		2.0	50m	30u	6.0	3.0m	10			1.5p	ME	TO17	
73#	2SA345	60m	250M	1.0m	#J	20		2.0	50m	30u	6.0	3.0m	30			1.2p	ME	TO17	
74#																			

2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	TEMPERATURE MAX °C	ABS MAX RATINGS @25°C				MAX. I _{cb} @ MAX V _{cb} (A)	TYPICAL 'h' PARAMETERS						Cob (F)	DESCRIPTION STRUCTURE	DWG. No.	L E O D E
						V _{bcbo} (V)	V _{veo} (V)	V _{vebo} (V)	I _c (A)		BIAS			COMMON EMITTER						
											V _{cb} (V)	I _e (A)	h _{fe}	h _{oe} (mhos)	h _{ie} (Ω)	h _{re} X.0001				
1	TR13	70m			#	25				15u∅	4.5	1.0m	28							
2	TR14	70m			#	25				15u∅	4.5	1.0m	45							
3	TR88	70m			#	25				15u∅	4.5	1.0m	65							
4	TRM13	70m			#	25				15u∅	4.5	1.0m	28							
5	TRM14	70m			#	25				15u∅	4.5	1.0m	45							
6	TRM81	70m			#	25				15u∅	4.5	1.0m	65							
7#	TS15	70m	.50M	2.0m	*J	65		20			9.0∅	1.0m	35							
8#	EW58/1	70m	.70M			50			20m	4.0u			24	60	A					
9#	EW58/2	70m	.70M			50			20m	4.0u			40	60						
10#	EW59	70m	.70M		#	25			20m	4.0u∅			32	30						
11	TR18	70m	.70M		#	25				15u∅	4.5	1.0m	45							
12#	EW53/1	70m	.80M		*A	10			20m	4.0u∅			24	45						
13#	EW53/2	70m	.80M		*A	10			20m	4.0u∅			40	45						
14#	2SB264	70m	1.0M		*J	25			50m	10u∅	1.5∅	.50m	65	15p	A	TO1				
15	TR87	70m	1.0M	2.0m	*J	25				15u∅	4.5	1.0m	28	50						
16#	TS7	70m	4.0M	2.0m	*J	20		20			4.5∅	1.0m	35				AB			
17#	TS8	70m	8.5M	2.0m	*J	10		10			4.5∅	1.0m	65				AB			
18#	2SA430	70m	450MSΔ	1.2m	*J	20				10u∅	6.0∅	2.0m	4.5	80p			ME	TO72		
19#	2SA432A	70m	450MS	1.2m	*J	20	18 ∅	.20	5.0m	10u∅	6.0∅	2.0m	4.5	1p∅			ME	TO72		
20#	2SA431	70m	500MS		*J	20	20	.20	5.0m	10u∅				1p∅			ME	TO17		
21#	2SA431A	70m	500MS	1.2m	*J	20	20	.20	5.0m	10u∅				1p∅			ME	TO72		
22	TIXM16	70mΔ	500MS	1.8m	*A	20	16	.30	5.0m	5.0u∅	6.0∅	2.0m∅	20 Δ	.7p∅	PE↑		TO92	B		
23	TIXM17	70mΔ	500MS	1.8m	*A	20	16	.30	5.0m	5.0u∅	6.0∅	2.0m∅	35 Δ	.7p∅	PE↑		TO92	B		
24	TIXM14	70mΔ	600MS	1.8m	*A	20	16	.30	5.0m	5.0u∅	6.0∅	2.0m∅	40 Δ	.7p∅	PE↑		TO92	B		
25	TIXM15	70mΔ	600MS	1.8m	*A	20	16	.30	5.0m	5.0u∅	6.0∅	2.0m∅	20 Δ	.7p∅	PE↑		TO92	B		
26#	M8124	70m	900MS	1.1m	*J	20			5.0m	10u			15	.30p						
27	TIXM18	70mΔ	900MS	1.7m	*A	18	12	.20	5.0m	5.0u∅	8.0∅	3.0m∅	90 ↑	.75f∅	PE∅		X55	A		
28	TIXM19	70mΔ	900MS	1.7m	*A	18	12	.20	5.0m	5.0u∅	8.0∅	3.0m∅	100 ↑	.75f∅	PE↑		X55	A		
29	JAN2N1158A	75m	1.0m		*S	20	20	.50	100m	5.0u∅	10	3.0m	50	2.8p∅	ME		TO9			
30	L5431	75m	1.0m		*S	20	20	.40		10u∅	15	2.0m∅	6.0 Δ	1.5p	ME		TO9			
31	T1446	75m				30			50m	5.0u∅	6.0∅	2.0m∅	10 Δ		MEΔ		TO50			
32	T1447	75m				30			50m	5.0u∅	6.0∅	2.0m∅	10 Δ		MEΔ		TO50			
33	T1448	75m				30			50m	5.0u∅	6.0∅	2.0m∅	10 Δ		MEΔ		TO50			
34#	V10/1S	75m		2.5m	∅J	10			20	500m			35	400m	40 ↑	A				
35#	V10/2S	75m		2.5m	∅J	10			20	500m			35	400m	25 ↑	A				
36#	V10/2SJ	75m		2.5m	∅J	10				500m			35	400m	25 ↑	A		TO5		
37	CTP1032	75m	.60M	2.8m∅		25				40m	4.0u∅	6.0∅	1.0m∅	13		35p	A			
38	2N266	75m	.80M	2.5m	*A	18	18	5.0	200m	200m	1.0∅	150m∅	24 ↑		1.2k	35p	A	R116		
39	CTP1033	75m	.80M	2.3m∅		25				40m	4.0u∅	6.0∅	1.0m∅	25		33p	A			
40	2N2447	75m	1.0M	1.3m	*J	45	24	12	100m	10u∅	6.0∅	1.0m	65	25u	1.8k	5.0	FA	u8		
41	2N2448	75m	1.0M	1.3m	*J	45	24	12	100m	10u∅	6.0∅	1.0m	65	25u	1.8k	5.0	FA	u9		
42	CTP1034	75m	1.0M	2.3m∅		25				40m	4.0u∅	6.0∅	1.0m∅	45		30p	A			
43	TS619	75m	1.0M	2.9m	*S	25				50m	8.0u	6.0∅	1.0m∅	50			A			
44	2N2449	75m	1.2M	1.3m	*J	35	20	12	100m	10u∅	6.0∅	1.0m	125	36u	3.6k	7.0	FA	u8		
45	2N2450	75m	1.2M	1.3m	*J	35	20	12	100m	10u∅	6.0∅	1.0m	125	36u	3.6k	7.0	FA	u9		
46	CK228	75m	1.2M	1.3m	*J	20	15	12	100m	10u	6.0∅	1.0m	90	36u	3.6k	7.0	FA∅	u8		
47	CK22C	75m	1.2M	1.3m	*J	20	15	12	100m	10u	6.0∅	1.0m	90	36u	3.6k	7.0	FA∅	u9		
48	CTP1035	75m	1.2M	2.3m∅		25				40m	4.0u∅	6.0∅	1.0m∅	65		28p	A			
49#	ASY141	75m*	1.5M	2.5m	∅J	80	80	10	250m	10u∅	7.0∅	80m∅	25 Δ	25p	A		R43			
50	CTP1036	75m	1.5M	2.2m	∅J	25				40m	4.0u∅	6.0∅	1.0m∅	85		25p	A			
51#	OC308	75m*	1.5M	2.5m	∅J	32	18	10	250m	10u∅	7.0∅	80m∅	30 Δ	25p	A		R43			
52	2N8171	75m	2.5MΔ	1.3m	*J	30	25	25	400m	10u∅	1.0∅	50m∅	25 ↑	9.0p	FA		u8			
53	2N8181	75m	2.5MΔ	1.3m	*J	30	25	25	400m	10u∅	1.0∅	50m∅	25 ↑	9.0p	FA		u9			
54#	NKT52	75m	3.0MΔ	1.5m	∅J	10	10	10	∅∅∅∅	10m	2.0u				A		R65			
55#	NKT53	75m	3.0MΔ	1.5m	∅J	10	10	10	∅∅∅∅	10m	2.0u				A		R65			
56#	NKT54	75m	3.0MΔ	1.5m	∅J	10	10	10	∅∅∅∅	10m	2.0u				A		R65			
57#	NKT62	75m	3.0MΔ	1.5m	∅J	10	10	10	∅∅∅∅	10m	2.0u				A		TO5			
58#	NKT63	75m	3.0MΔ	1.5m	∅J	10	10	10	∅∅∅∅	10m	2.0u				A		TO5			
59#	NKT64	75m	3.0MΔ	1.5m	∅J	10	10	10	∅∅∅∅	10m	2.0u				A		TO5			
60#	NKT74	75m	3.0M	1.5m	∅J	10	10	10	∅∅∅∅	10m	2.0u				A		TO5			
61#	V6/2R	75m	3.0M	1.5m	∅J	6.0		6.0	30m		4.5	1.0m	30					TO22		
62	2N8191	75m	5.0MΔ	1.3m	*J	30	20	25	400m	10u∅	1.0∅	50m∅	45 ↑	9.0p	FA		u8			
63	2N8201	75m	5.0MΔ	1.3m	*J	30	20	25	400m	10u∅	1.0∅	50m∅	45 ↑	9.0p	FA		u9			
64#	NKT1031	75m	5.0M	1.5m	∅J	20	20	∅∅	6.0	500m	40u	4.5∅	1.0m∅	75	20p	A		TO22		
65#	NKT1081	75m	5.0M	1.5m	∅J	20	20	∅∅	6.0	500m	40u	4.5∅	1.0m∅	75	20p	A		TO22		
66#	NKT1091	75m	5.0M	1.5m	∅J	20	20	∅∅	6.0	500m	40u	4.5∅	1.0m∅	75	20p	A		TO22		
67#	NKT1231	75m	5.0M	1.5m	∅J	20	20	∅∅	6.0	500m	40u	4.5∅	1.0m∅	75	20p	A		TO5		
68#	NKT1291	75m	5.0M	1.5m	∅J	30	20	∅∅	6.0	400m	10u∅	4.5∅	1.0m∅	75	20p	AΔ		u9		
69#	V6/4R	75m	5.0M	1.5m	∅J	6.0		6.0	30m		4.5	1.0m	50	25p	A		TO22			
70	CK83	75m	5.5M	1.3m	*J	12			20m	10u	6.0∅	1.0m	60	11p	FA		u11			
71#	V6/4RJ	75m	5.5M	2.5m	∅J	6.0			30m		4.5	1.0m	50	25p	A		TO5			
72	2N8011	75m	6.0M	1.3m	*J	30	18	20	400m	25u	2.5∅	1.0mΔ	40 ↑	14p	FA		u8			
73	2N8021	75m	6.0M	1.3m	*J	30	18	20	400m	25u	2.5∅	1.0mΔ	40 ↑	14p	FA		u9			
74#	GET871	75m	6.0M	1.5m	*J	15	10	10	150m	5.0u	1.0∅	25m∅	45 ↑	14p	FA		RO11			
75#	GET873	75m	6.0M	1.5m	*J	15	10	10	150m	5.0u	1.0∅	25m∅	45 ↑	14p	FA		R11			
76#	NKT154/25	75m	6.0M	1.5m	∅J	6.0	6.0 ∅		10m	2.0u	4.5∅	1.0m∅	50		A		TO22			
77#	NKT164	75m	6.0M	1.5m	∅J	6.0	6.0 ∅		10m	2.0u	4.5∅	1.0m∅	50		A		TO5			
78#	NKT164/25	75m	6.0M	1.5m	∅J	9.0	9.0 ∅		25m	5.0u∅	4.5	1.0m	50	25p	A		TO5			
79	2N809	75m	7.0M	1.2m	*J	30	15	20	200m	5.0u∅	6.0∅	1.0u	60	620nb	25	5.0	FAΔ	u8		
80	2N810	75m	7.0M	1.2m	*J	30	15	20	200m	5.0u∅	6.0∅	1.0u	60	620nb	25	5.0	FAΔ	u9		
81#	2G301	75m	7.2M	1.3m	*J	15	10	10	50m	10u	6.0	1.0m	60	8.5p	A					
82#	GET870	75m	7.5M	1.5m	*J	15	10	10	10	50m	6.0	1.0m	75		A∅		RO11			
83	2N8151	75m	8.0M	1.3m	*J	25	20	15	200m	10u	.75∅	200m∅	80 ↑	14p	FA		u8			
84	2N8161	75m	8.0M	1.3m																

2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	TYPE No.	1 MAX. COLL. DISS. @25°C		2 DERATE IN FREE AIR		T ABS MAX RATINGS @25°C				MAX. TYPICAL h' PARAMETERS			COMMON EMITTER			Cob	DESCRIPTION STRUC-TURE	L C O D E	
		fab	W/°C	IN W/°C	M A X P	BVcbo	BVceo	VVebo	Ic	Icbo @Mcb	BIAS			hoe	hie				hre
											Vcb	le	hfe						
1	2N806†	75m	17M	1.3m	#J	30	12	12	100m	5.0u∅	25∅	1.0m∅	80 †				14p	FA	u9
2	2N807†	75m	18M	1.3m	#J	25		12	100m	5.0u∅	20∅	1.0m∅	60 †					FAA	u8
3	2N808†	75m	18M	1.3m	#J	25		12	100m	5.0u∅	20∅	1.0m∅	60 †					FAA	u9
4#	NKT101†	75m	18M	1.5m	∅J	20	20 ∅	6.0	500m	40u	4.5∅	1.0m∅	150				20p	A	TO22
5#	NKT104†	75m	18M	1.5m	∅J	20	20 ∅	6.0	500m	40u	4.5∅	1.0m∅	150				20p	A	TO22
6#	NKT107†	75m	18M	1.5m	∅J	20	20 ∅	6.0	500m	40u	4.5∅	1.0m∅	150				20p	A	TO22
7#	NKT121†	75m	18M	1.5m	∅J	20	20 ∅	6.0	500m	40u	4.5∅	1.0m∅	150				20p	A	TO6
8#	NKT127†	75m	18M	1.5m	∅J	20	20 ∅	6.0	500m	40u	4.5∅	1.0m∅	150				20p	A	TO5
9	2N813	75m	20M	1.2m	#J	30	10	20	200m	5.0u∅	6.0∅	1.0u	140	770nb	26	11	12p	FA	u8
10	2N814	75m	20M	1.2m	#J	30	10	20	200m	5.0u∅	6.0∅	1.0u	140	770nb	26	11	12p	FA	u9
11#	GET875	75m	20M	1.5m	#J	15		10	150m	5.0u	1.0∅	25m∅	90 †					A	RO11
12#	GET931	75m	28M	1.5m	#	20		2.0	100m	50u	6.0∅	1.0m∅	20					A	TO5
13#	GET691	75m	30M	1.5m	∅J	20		1.0	10m	30u	6.0∅	1.0m∅	60				3.0p	D	R11
14#	GET692	75m	40M	1.5m	∅J	20		1.0	10m	30u	6.0∅	1.0m∅	60				2.0p	D	R11
15#	GET693	75m	50M	1.5m	∅J	20		1.0	10m	30u	6.0∅	1.0m∅	60				2.0p	D	R11
16	T1XM207	75m	99M∆	1.0m	#A	30	15	50	50m	5.0u∅	6.0∅	2.0m∅	10 ∆				2.0p	D	DEM
17	2N2799†	75m	120M∆	1.0m	#S	30	15	2.0	100m	30∅	3.0∅	1.0m∅	50 †				2.5p	D	DEM
18	T1XM201	75m	200M∆	1.0m	#A	30	15	50	50m	5.0u∅	6.0∅	2.0m∅	18 ∆				2.0p	D	DEM
19	T1XM202	75m	220M∆	1.0m	#A	30	15	50	50m	5.0u∅	6.0∅	2.0m∅	30				2.0p	D	DEM
20	T1XM04	75m	224M∆	1.0m	#A	20	10	20	30m	10u∅	1.0∅	1.0m∅	22 ∆				1p∅	D	DEM
21	2N2797†	75m	235M∆	1.0m	#S	40	20	2.5	100m	30∅	3.0∅	1.0m∅	80 †				2.5p	D	DEM
22	2N2798†	75m	235M∆	1.0m	#S	60	25	2.0	100m	30∅	3.0∅	1.0m∅	50 †				2.5p	D	DEM
23	2N695†	75m	250M∆	1.0m	#J	15		3.5	50m	3.0u∅	3.0∅	1.0m∅	40 †				2.5p	D	ME∆
24#	2SA403	75m	280M∆	1.0m	#J	20	15	2.0	10m	10u∅	6.0∅	1.0m	10				3.5p	D	ME∆
25#	T1XM02	75m	282M∆	1.0m	#A	20	10	20	30m	10u∅	1.0∅	1.0m∅	28 ∆				1.5p	D	PE∅
26#	2SA463	75m	300M∆	1.3m	#J	20	∅	50	10m	30u	6.0∅	3.0m	10				1.0p	D	ME
27	T1XM204	75m	300M∆	1.0m	#A	30	15	50	50m	5.0u∅	6.0∅	2.0m∅	25				2.0p	D	DEM
28	T1XM205	75m	300M∆	1.0m	#A	30	15	50	50m	5.0u∅	6.0∅	2.0m∅	30				2.0p	D	DEM
29	T1XM206	75m	300M∆	1.0m	#A	30	15	50	50m	5.0u∅	6.0∅	2.0m∅	25				2.0p	D	DEM
30	XT300†	75m	300M∆	1.0m	#S	25	12	2.5	100m	3.0u	3.0∅	1.0m∅	40 ∆				2.0p	D	DEM
31	T1XM07	75m	315M∆	1.0m	#A	20	10	20	30m	10u∅	1.0∅	1.6 ∆	10				4p∅	D	PE∅
32	T1XM03	75m	316M∆	1.0m	#A	20	10	20	30m	10u∅	1.0∅	1.0m∅	3.2 ∆				1p∅	D	PE∅
33	T1XM203	75m	350M∆	1.0m	#A	30	15	50	50m	5.0u∅	6.0∅	2.0m∅	10 ∆				2.0p	D	DEM
34	T1XM01	75m	355M∆	1.0m	#A	20	10	20	30m	10u∅	1.0∅	3.5 ∆	10				1p∅	D	PE∅
35	T1XM06	75m	380M∆	1.0m	#A	20	10	20	30m	10u∅	1.0∅	8.4 ∆	10				1p∅	D	PE∅
36	T1XM08	75m	380M∆	1.0m	#A	20	10	20	30m	10u∅	1.0∅	1.2 ∆	10				1p∅	D	PE∅
37#	2SA54	75m	400M∆	1.0m	#J	20	15	2.0	10m	5.0u∅	6.0∅	2.0m	12				1.2p	D	ME
38#	2SA404	75m	400M∆	1.0m	#J	20	15	2.0	10m	5.0u∅	6.0∅	2.0m	12				1.2p	D	ME
39#	GMO378	75m	400M∆	1.0m	#J	18		30	50m	5.0u∅	8.0∅	4.5m∅	20 ∆				1.8p	D	ME
40	T1XM05	75m	450M∆	1.0m	#A	20	10	20	30m	10u∅	1.0∅	1.5m∅	2.2 ∆				1p∅	D	PE∅
41	T1X3032	75m	500M∆	1.0m	#S	25	15	20	100m	10u∅	1.0∅	6.0m∅	25 ∆				1p∅	D	PE∅
42	XT400	75m	600M∆	1.0m	#S	40	30	1.0	100m	3.0u	3.0∅	1.5m∅	1.2 ∆				2.0p	D	PE∅
43#	GM290	75m	700M∆	1.0m	#A	18	15	30	50m	5.0u∅	6.0∅	3.0m∅	20 ∆				1.5p	D	EM∅
44#	2SA229	75m	750M∆	1.2m	∅J	20		20	50m	5.0u	6.0	2.0m	10				1.0p	D	ME
45#	2SA230	75m	750M∆	1.2m	∅J	20		20	50m	5.0u	6.0	2.0m	10				1.0p	D	ME
46	2N700/18	75m	800M∆	1.0m	#J	25	20	20	50m	2.0u∅	6.0∅	2.0m	10	b	17		1.1p	D	ME†
47	2N700A/18	75m	800M∆	1.0m	#J	25	20	20	50m	100u	6.0∅	4.0 ∆	10				1.4p∅	D	ME†
48#	GMO290	75m	800M∆	1.0m	#J	20	15	30	50m	5.0u∅	1.2∅	3.0m∅	20 ∆				1.2p	D	ME∅
49#	T1XM10	75m	900M∆	1.0m	#A	18	12	20	50m	10u∅	8.0∅	3.0m∅	90 †				750fs	D	PE∅
50#	T1XM11	75m	900M∆	1.0m	#A	18	12	20	50m	10u∅	8.0∅	3.0m∅	100 †				750fs	D	PE∅
51	MM2503	75m	1.0G∆	1.0m	#J	30	15	50	20m	10u∅	6.0∅	3.0m∅	25 ∆				2p∅	D	EA∅
52	2N1405	75m	1.1G*	1.0m	#J	30	20	50	50m	100u	6.0∅	2.0m∅	10 ∆				3.0p	D	ME∅
53	2N1406	75m	1.1G*	1.0m	#J	30	20	50	50m	100u	6.0∅	2.0m∅	10 ∆				3.0p	D	ME∅
54	2N1407	75m	1.1G*	1.0m	#J	30	20	50	50m	100u	6.0∅	2.0m∅	10 ∆				3.0p	D	ME†
55	2N2363	75m	1.1G*	1.0m	#J	30	20	50	50m	5.0u∅	6.0∅	2.0m∅	10				2.0p	D	ME∅
56	T1X3024	75m	1.5G∆	1.0m	#S	15	7.0	.30	50m	6.0u∅	5.0∅	3.0m∅	30 ∆				3.0p∅	D	EM∅
57	T1X895†	75m	2.5G∆	1.0m	#A	5.0	3.0	.80	75m	5.0u∅	2.5∅	15m∅	3.0 ∆				1.5p∅	D	DEM
58	2N23	80m			*S	50		40	40m	2m∅								PCA	
59#	2N152	80m			*A	20		2.5	30m	12u∅	9.0	1.0m∅	40					A	R18
60#	2N153	80m			*A	20		2.5	30m	12u∅	1.0∅	3.0m∅	60 †					A	R18
61#	2SB74	80m			#J	16		50	15m	10u	6.0∅	1.0m	48					A	TO1
62#	2SB384	80m		1.3m	#J	20		30	10m	10u∅	6.0∅	1.0m	60	23u	1.6k	3.5		A	TO1
63#	2SB385	80m		1.3m	#J	20	15	20	30m	10u∅	1.0∅	50m∅	50 †					A	TO1
64#	2T14A	80m		2.0m	*	25		20	10m	10u∅	6.0	1.0m	90				20p	A	
65#	2T15	80m		2.0m	*	25		20	10m	10u∅	6.0	1.0m	45				20p	A	
66#	2T16	80m		2.0m	*	25		20	10m	10u∅	6.0	1.0m	30				20p	A	
67#	2T17	80m		2.0m	*	25		20	10m	10u∅	6.0	.50m	13				20p	A	
68	CK17	80m	18m	1.3m	#J	30	10	20	200m	5.0u∅	6.0∅								

2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	TYPE No.	MAX. COLL. DISS. @25°C (W)	fab	DERATE IN FREE AIR W/C	TEMP. MAX. °C	ABS. MAX. RATINGS @25°C				MAX. I _{cb} @ MAX V _{cb} (A)	TYPICAL 'h' PARAMETERS						Cob (F)	DESCRIPTION	L C E A D E
						BV _{ceo}	BV _{ceo}	BV _{ebo}	I _c		BIAS			COMMON EMITTER					
						(V)	(V)	(V)	(A)		V _{cb}	I _e	h _{fe}	h _{oe}	h _{ie}	h _{re}			
1#	2V464	80m	2.0M	2.0m	15	15	20m	6.0u	6.0	1.0m	20					15p	PA		
2#	2V465	80m	2.0M	2.0m	15	15	20m	6.0u	6.0	1.0m	50					15p	PA		
3#	CK13	80m	2.5M	1.3m	#J	30	200m	5.0u	6.0	1.0m	30					12p	FA	u11	
4#	CK13A	80m	2.5M	1.3m	#J	30	200m	5.0u	6.0	1.0m	30					12p	FA	u12	
5#	OC46N	80m	3.0MΔ	1.6m	∅J	20	200m	3.0u	6.0	1.5m	20					12p	FA	u12	A
6#	2V482	80m	3.5M	2.0m	#J	15	100m	5.0u	6.0	1.0m	40					12p	PA		
7#	2SA14	80m	4.0M	1.3m	#J	16		15u	6.0	1.0m	50					10p	PA	TO1	
8#	2V466	80m	4.0M	2.0m	#J	15		15u	6.0	1.0m	80					15p	PA		
9#	2V483	80m	4.0M	2.0m	#J	15		20m	6.0	1.0m	60					12p	PA		
10#	CK251	80m	4.0M	1.3m	#J	30	20	400m	4.0u	2.5	1.0mΔ	30				14p	FA	u11	
11#	CK25A1	80m	4.0M	1.3m	#J	30	20	400m	4.0u	2.5	1.0mΔ	30				14p	FA	u12	
12#	OC47N	80m	4.5MΔ	1.6m	∅J	20	20	100m	3.0u	6.0	1.5m	20				14p	FA	u12	A
13#	2N1673	80m	5.0M	1.3m	#J	35		10m	5.0u	9.0	1.0m	100				3pZ	D	TO33	
14#	2SA296	80m	5.0M	1.3m	#J	15		15m	5.0u	6.0	1.0m	45				13p	A	TO1	
15#	2SA325	80m	5.0M	1.3m	#J	15		15m	5.0u	1.0	80m	60				13p	A	TO1	
16#	2SA151	80m	6.0M	1.3m	#J	9.0	30	15m	10u	3.0	1.0m	50				13p	A	TO1	
17#	CK261	80m	6.0M	1.3m	#J	30	18	20	400m	4.0u	2.5	1.0mΔ	40			14p	FA	u11	
18#	CK26A1	80m	6.0M	1.3m	#J	30	18	20	400m	4.0u	2.5	1.0mΔ	40			14p	FA	u12	
19#	2V467	80m	7.0M	2.0m	#J	15		20m	6.0u	6.0	1.0m	120				15p	PA		
20#	CK14	80m	7.0M	1.3m	#J	30	15	20	200m	5.0u	6.0	1.0m	60			12p	FA	u11	
21#	CK14A	80m	7.0M	1.3m	#J	30	15	20	200m	5.0u	6.0	1.0m	60			12p	FA	u12	
22#	2SA13	80m	8.0M	1.3m	#J	12		15m	10u	6.0	1.0m	55				33p	A	TO1	
23#	2SA152	80m	10M	1.3m	#J	9.0		15m	10u	3.0	1.0m	55				13p	A	TO1	
24#	2SA297	80m	10M	1.3m	#J	16		15m	5.0u	6.0	1.0m	65				13p	A	TO1	
25#	2SA326	80m	10M	1.3m	#J					1.0	80m	80				13p	A	TO1	
26#	2V484	80m	10M	2.0m	#J	15		20m	5.0u	6.0	1.0m	100				12p	PA		
27#	CK16	80m	10M	1.3m	#J	30	12	20	200m	5.0u	6.0	1.0m	80			12p	FA	u11	
28#	CK16A	80m	10M	1.3m	#J	30	12	20	200m	5.0u	6.0	1.0m	80			12p	FA	u12	
29#	2V485	80m	11M	2.0m	#J	15		20m	5.0u	6.0	1.0m	80				12p	PA		
30#	CK271	80m	11M	1.3m	#J	30	15	20	400m	4.0u	2.5	1.0mΔ	55			14p	FA	u11	
31#	CK27A	80m	11M	1.3m	#J	30	15	20	400m	4.0u	2.5	1.0mΔ	55			14p	FA	u12	
32#	2SA16	80m	12M	1.3m	#J	12		15m	10u	6.0	1.0m	80				32p	A	TO1	
33#	2V486	80m	12M	2.0m	#J	15		20m	5.0u	6.0	1.0m	120				12p	PA		
34#	CK41	80m	12M	1.3m	#J	25	12	100m	5.0u	2.0	1.0mΔ	40				12p	FA	u11	
35#	CK4A1	80m	12M	1.3m	#A	25	12	100m	5.0u	1.5	40m	60				12p	FA	u12	
36#	CK281	80m	17M	1.3m	#J	30	12	20	400m	4.0u	2.5	1.0mΔ	80			14p	FA	u11	
37#	CK28A1	80m	17M	1.3m	#J	30	12	20	400m	4.0u	2.5	1.0mΔ	80			14p	FA	u12	
38#	CK17A	80m	18M	1.3m	#J	30	10	20	200m	5.0u	6.0	1.0m	140			12p	FA	u12	
39#	2SA17	80m	19M	1.3m	#J	12		15m	6.0u	6.0	1.0m	100				9.5p	A	TO1	
40#	2SA18	80m	19M	1.3m	∅J	21		15m	6.0u	6.0	1.0m	150				9.5p	A	TO1	
41#	2SA358	80m	25M	1.0m	#S	9.0		10m	15u	3.0	1.0m	80				2.8p	D	TO1	
42#	2SA383	80m	25M	1.3m	#S	25		10m	12u	6.0	1.0m	40				2.5p	D	TO1	
43#	2V562	80m	25M	1.0m	#S	30		10m	10u	9.0	1.0m	50				2.5p	PD		
44#	2V563	80m	25M	1.0m	#S	30		10m	10u	9.0	1.0m	100				2.5p	PD		
45#	2N247	80m	30M	1.0m	∅A	35		10m	16u	9.0	1.0m	100				1.7p	D	TO1	
46#	JAN2N274	80m	30M	1.8m	∅A	35		10m	8.0u	12	1.0m	80				1.7p	A	TO44	
47#	2N370	80m	30M	1.6m	∅A	20		10m	20u	12	1.0m	80				3pZ	D	TO7	H
48#	2N370/33	80m	30M	667u	#J	24		10m	10u	12	1.0m	107				3pZ	D	TO33	
49#	2N371	80m	30M	1.6m	∅A	20		10m	20u	12	1.0m	80				3pZ	D	TO7	
50#	2N371/33	80m	30M	2.0m	#J	24		10m	10u	12	1.0m	97				3pZ	D	TO33	
51#	2N372	80m	30M	1.6m	∅A	20		10m	20u	12	1.0m	80				3pZ	D	TO7	H
52#	2N372/33	80m	30M	2.0m	#J	24		10m	10u	12	1.0m	97				3pZ	D	TO33	
53#	2N374	80m	30M	1.3m	∅A	25		10m	8.0u	12	1.0m	80				1.0u	2.6k	TO7	
54#	2N544	80m	30M	1.1m	∅A	18		10m	8.0u	12	1.0m	80				1.6p	D	TO7	
55#	2N544/33	80m	30M	1.0m	#J	24		10m	16u	12	1.0m	97				3pZ	D	TO33	
56#	2SA83	80m	30M	1.3m	#J	25		10m	10u	9.0	1.0m	80				2.8p	D	TO44	
57#	2SA357	80m	30M	1.3m	#J	9.0		10m	15u	3.0	1.0m	80				2.8p	D	TO1	
58#	2SA367	80m	30M	1.3m	#J	20	20	∅	15u	9.0	1.0m	70				2.5p	D	TO1	
59#	2SA382	80m	30M	1.3m	#S	25		10m	12u	6.0	1.0m	55				2.5p	D	TO1	
60#	2V560	80m	30M	1.0m	#S	25		10m	10u	9.0	1.0m	70				2.2p	PD		
61#	2V561	80m	30M	1.0m	#S	25		10m	10u	9.0	1.0m	30				2.2p	PD		
62#	XA121	80m	30M	1.3m	∅A	25		10m	8.0u	12	1.0m	80				1.5u	2.2k	TO7	
63#	XA122	80m	30M	1.3m	∅A	25		10m	8.0u	12	1.0m	80				1.0u	2.6k	TO7	
64#	XA123	80m	30M	1.3m	∅A	20		10m	20u	12	1.0m	80				1.6p	D	TO7	
65#	XA124	80m	30M	1.3m	∅A	20		10m	20u	12	1.0m	80				1.6p	D	TO7	
66#	XA126	80m	30M	1.3m	∅A	20		10m	20u	12	1.0m	80				1.6p	D	TO7	
67#	2N1425	80m	33M	1.6m	∅A	24		10m	12u	12	1.0m	50				2.0p	D	TO7	
68#	2N1426	80m	33M	1.6m	∅A	24		10m	12u	12	1.0m	130				2.0p	D	TO7	
69#	2N1526/33	80m	33M	2.5m	#A	24		10m	16u	12	1.0m	130				2.0p	D	TO33	
70#	2SA298	80m	35M	1.3m	#J	40		10m	8.0u	6.0	1.0m	55				2.5p	D	TO44	
71#	2SA327	80m	35M	1.3m	#J	20		10m	10u	1.0	80m	30				2.5p	D	TO44	

2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 f (Hz)	DERATE IN FREE AIR W/°C	TEMPERATURE M E A M P	ABS MAX RATINGS @25°C				MAX. Icbo @ MAX Vcb (A)	TYPICAL h _{FE} PARAMETERS			Cob (F)	DESCRIPTION STRUC-TURE DWG. No.	L C O D E					
						BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)		BIAS		COMMON EMITTER								
						Vcb (V)	Vce (V)	Vbe (V)	Vcb (V)		Ic (A)	hfe	hoe (mhos)				hie (Ω)	hre (X.0001)			
1#	2SA289	80m	250MΔ	1.3m	#J	20	.50	10m	30u	8.0φ	3.0m	10 Δ	1.2pφ	ME	T07						
2#	2SA290	80m	250MΔ	1.3m	#J	20	.50	10m	30u	8.0φ	3.0m	10 Δ	1.2pφ	ME	T07						
3#	THP501	80m	280M	1.3m	#J	20	1.0	10m	20u	9.0	2.0m	65 φ		ME	T012						
4#	THP502	80m	280M	1.3m	#J	20	1.0	10m	20u	9.0	2.0m	55 Δ		ME	T012						
5#	504T1	80m	300MΔ	1.3m	#J	20	20 §	1.0	10u	9.0φ	2.0mφ	100 Δ	2pφ	MD	R73						
6#	505T1	80m	330MΔ	1.3m	#J	20	20 §	1.0	10u	9.0φ	2.0mφ	30 Δ	2pφ	MD	R73						
7#	508T1	80m	330MΔ	1.3m	#J	20	20 §	1.0	10u	9.0φ	2.0mφ	15 Δ	2pφ	MD	R73						
8#	501T1	80m	345MΔ	1.3m	#J	20	20 §	1.0	10u	9.0φ	2.0mφ	30 Δ	1.5pφ	MD	R73						
9#	503T1	80m	345MΔ	1.3m	#J	20	20 §	1.0	10u	9.0φ	2.0mφ	15 Δ	1.5pφ	MD	R73						
10#	508T1	80m	380MΔ	1.3m	#J	20	20 §	1.0	10u	9.0φ	2.0mφ	30 Δ	1.5pφ	MD	R73						
11#	507T1	80m	380MΔ	1.3m	#J	20	20 §	1.0	10u	9.0φ	2.0mφ	15 Δ	1.5pφ	MD	R73						
12#	2SC125	80m	700M		#J	20		50	30u	6.0	3.0m	10 Δ	.90p	ME	T07						
13#	OC975	83m		1.6m	φJ	30			10m	6.0	1.0m	36 Δ		AD	T07	H					
14#	2SA302	83m	6.0M	1.6m	φJ	20			15 100m	3.0uφ	100m	20 †		AD	R9						
15#	2SA303	83m	9.0M	1.6m	φJ	20			15 100m	3.0uφ	100m	50 †		AD	R9						
16#	2N1515	83m	70.MΔ	1.7mφ	J	20			10m	13uφ	6.0φ	1.0m	100	AD	T07	H					
17#	2N1516	83m	70.MΔ	1.7m	J	20			10m	13uφ	6.0	1.0m	67 †	AD	T07	H					
18#	2N1517	83m	70.MΔ	1.7mφ	J	20			10m	13uφ	6.0	1.0m	67 †	AD	T07	H					
19#	JAN2N1517	83m	70.MΔ	1.6m	φJ	20			10m	13uφ	6.0	1.0m	67 †	AD	T07						
20#	2SA308	83m	450M	1.6m	φJ	20		.30	5.0m	13uφ	12	1.0m	250	AD	T07						
21#	2SA309	83m	600M	1.6m	φJ	20		.30	5.0m	13uφ	12	1.0m	250	AD	T07						
22#	A1378	86m	160M	2.2m	#J	32	32 §	1.0	30m	3.0uφ	10	1.0m	50	30	PDφ	T012					
23#	2N26	90m			*S	30	40	40		.7mφ				PCΔ							
24#	A1220	90m		11u		25	25 φ	30	15m	3.5uφ	10	2.0mφ	20 †	PD	T018						
25#	GT24H	90m			#J	12			10m	10uφ			30	A							
26#	GT210H	90m			φS	12			50m	25uφ	4.5	1.0m	120	A							
27#	NKT255	90m	1.0M	1.5m	#J	9.0	9.0 φ		10m	5.0u	4.5φ	1.0mφ	25 Δ	A	T022						
28#	NKT265	90m	1.0M	1.5m	#J	9.0	9.0 φ		10m	5.0u	4.5φ	1.0mφ	25 Δ	A	T05						
29#	TR801	90m	2.5M		φS	12			100m	6.0u	4.5	1.0m	25	A							
30#	TR802	90m	5.0M		φS	10			100m	6.0u	4.5	1.0m	40	A							
31#	NKT5	90m	7.5MΔ	1.5m	#A	18	10	15	500m	5.0u	.50	10mφ	7.0 Δ	10p	Δ	R65					
32#	NKT24	90m	7.5MΔ	1.5m	#A	16	10	10	500m	5.0u	.50φ	10mφ	7.0 Δ	10p	Δ	T05					
33#	NKT25	90m	7.5MΔ	1.5m	#A	18	10	10	500m	5.0u	.50φ	10mφ	7.0 Δ	10p	Δ	T05					
34#	3BT1	90m	10.M	1.5m	#J	20			50m			10mφ	50 †	A							
35#	TR803	90m	11.M		φS	10			100m	6.0u	4.5	1.0m	70	A							
36#	39T1	90m	15.M	1.5m	#J	14			50m			10mφ	100 †	A							
37#	NKT4	90m	15.MΔ	1.5m	#A	16	10	10	500m	5.0u	.50	10mφ	7.0 Δ	10p	Δ	R65					
38#	TR804	90m	17.M		φS	6.0			100m	6.0u	4.5	1.0m	120	A							
39#	TIX2000	90m	4.2G*	1.5m	#J	15		.50	25m	2.0uφ	6.0φ	3.0mφ	10 Δ	1.3p	ME	R038					
40#	PAD140	94m	300M	5.5m	φA	20		2.5	50m		.90	30m	50	5.0p	AD	T018					
41#	2N51	100m			*A	50			8.0m				67	PCΔ							
42#	2N1388	100m		1.7m	#J				100					A							
43#	2N649/5	100m			φA	20		2.5	50m		1.0φ	50mφ	65 †	A	T05						
44#	JAN2N694	100m		1.3m	#J	30	15	1.0	50m	3.0uφ	6.0	2.0m	9.0 Δ	A	Dt	T028					
45#	2N2672A	100m		2.0m	#S	32	32 φ	2.0	50m	8.0uφ	6.0φ	1.0mφ	40 †Δ	AD	T039						
46#	3N211	100m			*A	60			50			2.5		PCφ							
47#	EW51	100m			*A	20			15m	2.2m			67	PCΔ							
48#	GT14H	100m			φJ	12			50m				28	A							
49#	GT20H	100m			φJ	12			50m				42	A							
50#	GT81H	100m			φJ	12			50m				80	A							
51#	MA898	100m		1.6m	#J	25	25 φ	10	100m	100u	6.0φ	1.0m	20 Δ	A							
52#	MA899	100m		1.6m	#J	25	25 φ	10	100m	100u	6.0φ	1.0m	40 Δ	A	T05						
53#	MA900	100m		1.6m	#J	25	25 φ	10	100m	100u	6.0φ	1.0m	90 Δ	A	T05						
54#	MA901	100m		1.6m	#J	20	20 φ	10	100m	100u	6.0φ	1.0m	20 Δ	A	T05	A					
55#	MA902	100m		1.6m	#J	15	15 φ	5.0	100m	100u	6.0φ	1.0m	15 Δ	A	T05	A					
56#	MA903	100m		1.6m	#J	15	15 φ	5.0	100m	100u	6.0φ	1.0m	20 Δ	A	T05	A					
57#	MA904	100m		1.6m	#J	15	15 φ	5.0	100m	100u	6.0φ	1.0m	180 Δ	A	T05	A					
58#	SVL1592	100m			φJ		15	15	200m		.40φ	1.0mΔ	25 †	30p	A						
59#	SVL2120	100m		1.3m	#J	15	15	3.5	50m	3.0uφ	.30φ	10mφ	25 †Δ	DM	u1						
60#	T2351	100m		1.1m	#S	20	20 φ	.40		50u	15	2.0m	6.0 Δ	MD	X13						
61#	TK49C	100m		2.0m	#S	20			200m	8.0u*	0.0	5.0m	15 †Δ	A	R47a						
62#	TR20	100m			#S	30			10m	15u	15φ	2.0mφ	60	A	D	T033					
63#	2N1432	100m		1.3m	#J	45	45 §	.50						A							
64#	T1320	100m	400kΔ		φS	30			50m	20u	5.0φ	1.0m	34 †	850nb	38	5.4	R44				
65#	GT11	100m	.42M		φS	9.0			10m	5.0u	4.5	1.0m	30	A							
66#	2N199	100m	500k	1.5m	#J	30		6.0	30m	5.0uφ	5.0	1.0m	30	40p	A						
67#	OC71N	100m	500k	2.2m	φJ	30			10m	5.0u	2.0	3.0m	4.7	80	800	5.4	8.0	40p	T01	A	
68#	T1321	100m	500kΔ		φS	30			50m	20u	5.0φ	1.0m	95 †	830nb	38	8.0					
69#	TR758A	100m	50M		#S	20			200m	5.0uφ	4.5	1.0m	15	A							
70#	2N198	100m	600k	1.5m	#J	30		6.0	30m	5.0uφ	5.0	1.0m	40	40p	A						
71#	TR63	100m	.60M	1.7m	#J	30	22		150m	6.0u	6.0	1.0m	22	F							
72#	2N197	100m	700k	1.5m	#J	30		6.0	30m	5.0uφ	5.0	1.0m	50	40p	A						
73#	2N196	100m	800k	1.5m	#J	30		6.0	30m	5.0uφ	5.0	1.0m	65	40p	A						
74#	TR64	100m	.80M	1.7m	#J	15			150m	6.0u	6.0	1.0m	45	F							
75#	GT12	100m	.85M		φS	9.0			10m	5.0u	4.5	1.0m	60	A							
76#	2N195	100m	1.0M	1.5m	#J	15		6.0	30m	3.0uφ	5.0	1.0m	180	40p	A						
77#	2N200	100m	1.0M	1.5m	#J	38		12	100m	4.0uφ	5.0	1.0m	45	40p	A						
78#	2SB110	100m	1.0M	1.4m	φJ	25			10	50m	10uφ	6.0φ	1.0m	30	50ub	30	2.5	15p	15p	T01	
79#	2SB111	100m	1.0M	1.4m	φJ	25			10	50m	10uφ	6.0φ	1.0m	45	50ub	30	2.5	15p	15p	T01	
80#	2SB112	100m	1.0M	1.4m	φJ	25			10	50m	10uφ	6.0φ	1.0m	60	50ub	30	2.5	15p	15p	T01	
81#	2SB113	100m	1.0M	1.4m	φJ	25			10	50m	10uφ	6.0φ	1.0m	80	50ub	30	2.5	15p	15p	T01	
82#	CK754	100m	1.2M	1.7m	#J	12	10	20	100m	6.0	6.0	1.0m	300	A							
83#	TR65	100m	1.2M	1.7m	#J	12			150m	6.0u	6.0	1.0m	90	F							
84#	2SB114	100m	1.5M	1.4m	φJ	25			10	50m	10uφ	1.0φ	2.0mφ	65 †	15p	A				T01	
85#	2SB115	100m	1.5M	1.4m	φJ	25			10	50m	10uφ	1.0φ	2.0mφ	85 †	15p	A				T01	
86#	2SB116	100m	1.5M	1.4m	φJ	25			10	50m	10uφ	1.0φ	2.0mφ	110 †	15p	A				T01	
87#	2SB117	100m	1.5M	1.4m	φJ	25			10	50m	10uφ	1.0φ	2.0mφ	140 †	15p	A				T01	
88#	GT13	100m	1.7M		φS	9.0			10m	5.0u	4.5	1.0m	100	A							
89#	GT759	100m	1.7M	2.0m	#S	20		15	200m	25u	4.5φ	1.0mφ	25	14p	A						
90#																					

2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 DERATE IN FREE AIR W/°C	3 M E A M P	ABS MAX RATINGS @25°C					TYPICAL h _{FE} PARAMETERS							Cob (F)	DESCRIPTION STRUCTURE DWG. No.	C O D E
					BVcbo (V)	BVceo (V)	Vcbo (V)	Ic (A)	Icbo @MAX Vcb (A)	BIAS			COMMON EMITTER						
										Vcb (V)	Ic (A)	hfe	hoe (mhos)	hie (Ω)	hre (X.0001)				
1	4JD1A73	100m	5.0M	#S	15	2.0	5.0	50m	6.0	5.0	1.0m	32							
2	GT760	100m	5.0M	#S	15		5.0	50m	5.0	4.5	1.0m	40							
3#	GT42	100m	6.0M	#J	15		15	100m	15u	4.5	1.0m	60	25u	1.6k	3.0	15p	A	R12	
4#	GT46	100m	6.0M	#J	25		15	100m	15u	4.5	1.0m	60	25u	1.6k	3.0	15p	A	R12	
5#	GT100	100m	6.0M	#J	9.0		9.0	100m		4.5	1.0m	60	25u	1.6k	3.0		A		
6#	TK20A	100m	6.3M	*J	30		30			4.5	1.0m	43					A		
7#	GET884	100m	7.5M	#J	15		10	10m	5.0u	6.0	1.0m	70				15p	AT	TO5	
8	2N1684	100m	8.0M	#S	25		12	100m	20u							15p	A	u1	
9	2N1782	100m	8.0M	#S	30		20	100m		.35	200m	30				15p	A	u1	
10#	OC3K	100m	8.0MΔ	#S	15	10	10		2.0	6.0	1.0m	50				14p	A	TO9	
11#	OC4K	100m	8.0MΔ	#S	15	10	10		2.0	6.0	1.0m	80				14p	A	TO9	
12#	OC5K	100m	8.0MΔ	#S	15	10	10		2.0	6.0	1.0m	120				14p	A	TO9	
13#	GT43	100m	9.0M	#J	15		15	100m	15u	4.5	1.0m	100	30u	2.7k	3.0	15p	A	R12	
14#	GT47	100m	9.0M	#J	25		15	100m	15u	4.5	1.0m	100	30u	2.7k	3.0	15p	A	R12	
15	2N487	100m	10MΔ	#S	18		3.0	25m	15u	6.0	1.0m	20	100u	2.8k		14p	A		
16	GT761	100m	10M	#S	15				5.0	4.5	1.0m	70				14p	A		
17#	TK25A	100m	10M	4.0m	#J	20		20		4.5	1.0m	63				17p	ABΔ		
18#	TK34C	100m	10M	2.0m	#J	20		20		4.5	1.0m	60				17p	ABΔ		
19	2N1784	100m	12M	1.3m	#J	30	6.0	15	250m	10u	0.0	100m	60			14p	A	R47a	
20	2N624	100m	13M	1.3m	#J	30		12	100m	25u	.35	10m	40			15p	A	u1	
21#	OC3N	100m	15MΔ	1.7m	#S	15	8.0	10		30u	10	2.0m	20			3p	D	R4	
22#	OC4N	100m	15MΔ	1.7m	#S	15	8.0	10		2.0	6.0	1.0m	80			14p	A	TO9	
23#	OC5N	100m	15MΔ	1.7m	#S	15	8.0	10		2.0	6.0	1.0m	120			14p	A	TO9	
24	GT762	100m	20M	2.0m	#S	15			5.0	4.5	1.0m	120				14p	A		
25#	OC4-0	100m	21MΔ	1.7m	#S	15	6.0	10		2.0	6.0	1.0m	80			14p	A	TO9	
26#	OC5-0	100m	21MΔ	1.7m	#S	15	6.0	10		2.0	6.0	1.0m	120			14p	A	TO9	
27#	OC40	100m	21MΔ	1.7m	#S	15	6.0	10		2.0	6.0	1.0m	80			14p	A	TO9	
28#	OC50	100m	21MΔ	1.7m	#S	15	6.0	10		2.0	6.0	1.0m	120			14p	A	TO9	
29	GT764	100m	25M	2.0m	#S	20			200m	5.0	4.5	1.0m	200			14p	A		
30	GT763	100m	30M	2.0m	#S	15			5.0	4.5	1.0m	200				14p	A		
31#	NKT618	100m	30MΔ	1.6m	#J	50	50	1.0	30m	10u	4.5	1.0m	35			2.0p	ME	TO1	
32	2N1517A	100m	70M	1.5m	#J	40	20	1.0	10m	8.0u	6.0	1.0m	150	350u	43	140	AD	TO7	
33	PADT29	100m	70M	588u	#J	25	15		10m	8.0u	6.0	1.0m	150			2.5p	AD	TO7	
34	2N2093	100m	75M	1.7m	#J	25	25	2.0	10m	50u	8.0	1.0m	150	1.0u	4.0k	160	AD	TO7	
35#	2G417	100m	90M	1.7m	#J	20	20	1.0	10m	8.0u	6.0	1.0m	50			3.5p	AD	TO18	
36#	2G413	100m	100M	1.5m	#J	40		1.0	25m	50u	6.0	1.0m	100			2.5p	AD	TO18	
37	2N1699	100m	100M	1.3m	#J	40				12	1.5m	100							
38#	2G414	100m	120M	1.7m	#J	20	20	1.0	10m	8.0u	6.0	1.0m	50			2.3p	AD	TO18	
39#	2G415	100m	120M	1.7m	#J	20	20	1.0	10m	8.0u	6.0	1.0m	50			2.3p	AD	TO18	
40#	2G416	100m	120M	1.7m	#J	20	20	1.0	10m	8.0u	6.0	1.0m	50			3.5p	AD	TO18	
41#	2SA362	100m	150M	1.7m	#J	30	25	50	30u	6.0	5.0	1.0m	70			3.0p	ME	TO44	
42#	2SA247T	100m	200M	1.7m	#J	10	25	50	30m	5.0u	.30	20m	125			5.5p	ME	TO44	
43	PADT30	100m	220M	1.7m	#J	25	15	1.0	10m	10u	12	1.0m	120						
44	40268	100m	250MΔ	1.3m	#J	25	15	1.0	100m	10u	10	1.0m	20		250	3.5p	DM	TO18	
45	TI445	100m	480M		#J	25			100m	5.0u	10	1.0m	10			10	MEΔ	TO50	
46	2N694	100m	500M	1.3m	#S	30		1.0	50m		6.0	2.0m	20	15ub	19	57	1.5p	D	R23
47	M2	100m	550M	5.0m	#J	25		1.0	12m	20u			20			1.4p	ME		
48	GA53194	100m	600M	1.0m	#J	30			30m	5.0u	9.0	1.0m	19	7.5ub	6.0	8.0	2.5p	ME	
49	TI444	100m	700M		#J	30			100m	5.0u	10	1.0m	10						
50	M1	100m	700M*	5.0m	#J	25		1.0	12m	20u			20			1.4p	ME	R23	
51	TI443	100m	750M		#J	35			100m	5.0u	10	1.0m	10	40ub	3.6	200m	1.4p	MEΔ	TO50
52#	2SA310	106m	650M	3.3m	#J	32	30	25m		13u	12	1.0m	250			700f	AD	TO7	
53#	ASY14-1	110m*		2.5m	#J	80	40	10	250m		.50	250m	30				A	R43	
54#	ASY14-2	110m*		2.5m	#J	80	40	10	250m		.50	250m	40				A	R43	
55#	ASY14-3	110m*		2.5m	#J	80	40	10	250m		.50	250m	70				A	R43	
56#	OC307-1	110m*		2.5m	#J	32	18	10	250m		.50	250m	30				A	R43	
57#	OC307-2	110m*		2.5m	#J	32	18	10	250m		.50	250m	40				A	R43	
58#	OC307-3	110m*		2.5m	#J	32	18	10	250m		.50	250m	70				A	R43	
59#	OC309-1	110m*		2.5m	#J	60	30	10	250m		.50	250m	30				A	R43	
60#	OC309-2	110m*		2.5m	#J	60	30	10	250m		.50	250m	40				A	R43	
61#	OC309-3	110m*		2.5m	#J	60	30	10	250m		.50	250m	70				A	R43	
62#	OC303	110m	700k	2.2m	#J	32	15	10	50m	10u	5.0	1.0m	26	18u	1.0k	3.0	2.0p	A	R41
63#	OC304/1	110m	800k	2.2m	#J	32	15	10	50m	10u	5.0	1.0m	40	22u	1.2k	4.0	1.4p	A	R41
64#	OC306/1	110m	800k	2.2m	#J	32	15	10	50m	10u	5.0	1.0m	65	32u	1.6k	6.5	A	R41	
65#	OC304/2	110m	900k	2.2m	#J	32	15	10	50m	10u	5.0	1.0m	65	35u	1.6k	6.5	A	R41	
66#	OC306/2	110m	900k	2.2m	#J	32	15	10	50m	10u	5.0	1.0m	65	35u	1.6k	6.5	A	R41	
67#	OC304/3	110m	1.1M	2.2m	#J	32	15	10	50m	10u	5.0	1.0m	100	45u	2.8k	8.5	A	R41	
68#	OC306/3	110m	1.1M	2.2m	#J	32	15	10	50m	10u	5.0	1.0m	100	45u	2.8k	8.5	A	R41	
69#	OC305/1	110m	1.5M	2.2m	#J	32	8.0	10	50m	10u	5.0	1.0m	150	60u	4.5k	13	A	R41	
70#	OC305/2	110m	2.1M	2.2m	#J	32	8.0	10	50m	10u	5.0	1.0m	230	90u	6.8k	16	A	R41	
71	A1377	110m	300M	2.5m	#J	35	20	#	50	10m	10u	6.0	1.0m	70			2.0p	AD	TO12
72	2N2873	115m	375M	1.5m	#J	35	12		30	10m	12u	6.0	1.0m	125			1.3p	DM	R103
73	2N22	120m			*S	100	100		40	20m	2m						PC		
74	2N24	120m			*S	20	30		5.0	25m	1m						PC		
75	2N52	120m			*A	50	50		8.0m								PC		
76	2N247/33	120m		1.7m	#J	40	40	50	10m	12u	9.0	1.0m	60			3p	D	TO33	
77	2N1003	120m		1.7m	#J	35	20	50		15u	9.0	1.0m	10			5.0	A		
78	2N1004	120m		1.7m	#J	35	20	50		15u	9.0	1.0m	10			5.0	A		
79	2N2208	120m		1.6m	#S	40	10	50		50u	12	1.5m	30		300				
80#	OC3L	120m		2.0m	#J	30	30		120m	10u	6.0	1.0m	70				A	TO9	
81#	OC3LP	120m		2.0m	#J	30	30		120m	10u	.50	100m	70				A	TO9	
82#	OC3LR	120m		2.0m	#J	30	30		120m	10u	6.0	1.0m	70				A	TO9	
83#	OC4L	120m		2.0m	#J	30	30		120m	10u	6.0	1.0m	150				A	TO9	
84#	OC4LP	120m		2.0m	#J	30	30		120m	10u	.50	100m	150				A	TO9	
85#	OC4LR	120m		2.0m	#J	30	30		120m	10u	6.0	1.0m	150	</					

2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	TYPE No.	MAX. COLL. DISS. @25°C (W)	DERATE IN FREE AIR W/°C	M E A M X P	ABS MAX RATINGS @25°C				MAX. I _{cb} @ MAX V _{cb} (A)	TYPICAL h _{FE} PARAMETERS						Cob (F)	STRUC-TURE	DESCRIP-TION	L C O D E
					fab (Hz)	V _{ce} (V)	V _{be} (V)	I _c (A)		BIAS			COMMON EMITTER						
										V _{cb} (V)	I _e (A)	h _{fe}	hoe (mhos)	hie (Ω)	hre (X.0001)				
1	SYL1717	120m	7.0MΔ	#J	25	15	200m	20u	100	1	1	1	1	1	20p	AΔ	TO5		
2	GA52837	120m	7.5M	#S	100	100	40m	2.2m∅								PC			
3#	XA102	120m	8.0M	#J	20	12		5.0u	5.0	1.0m∅	60			14p	AΔ	RO35			
4#	XA112	120m	8.0M	#J	20	12		5.0u	5.0	1.0m∅	60			14p	AΔ	RO7			
5#	AT/S13	120m	9.0M	#S	16	12	100m	5.0u		15m	100	1		12p	A	TO1			
6#	2N1670	120m	10.1M	#S	100	1.5		7.0u	.50∅	10m	15			5.0p	Δ	TO9			
7	2N602A	120m	12MΔ		35	25	1.5	5.0u∅	1.0∅	500uΔ	80	1	2	2.0u∅	Δ	TO9	A		
8	2N603A	120m	12MΔ		30	20	2.0	5.0u∅	1.0∅	500uΔ	100	1	2	2.0u∅	Δ	TO9			
9	2N604A	120m	12MΔ		30	20	2.5	5.0u∅	1.0∅	500uΔ	120	1	2	2.0u∅	Δ	TO9			
10	TR289	120m	12M	Δ	25	12	100m	20u	.30	20m∅	40			20p	AΔ				
11	2N605	120m	15M	#S	15	.50		25u	7.5∅	1.0m∅	15			3.0p	D				
12#	AT/RF2	120m	15.5M	#	16	12	100m	10u	6.0	1.0m	120			12p	A	TO1			
13	SYL1684	120m	17MΔ	#S	40	1.0		50u		50	1	1	2.0u	Δ	Δ				
14	2N602	120m	20M∅	#S	20	20	1.0	8.0u∅	1.0∅	500uΔ	20	1	1	500nb	33	3.0	4.0p	TO9	A
15	2N606	120m	20M	#S	15	.50		25u	7.5∅	1.0m∅	25			500nb	30	3.0	3.0p		
16	2N10857	120m	20MΔ	#S	40	20	1.0	5.0u	1.0∅	500uΔ	50	1		500nb	33	3.0	4.0p	TO9	
17	2N607	120m	25M	#S	15	.50		25u	7.5∅	1.0m∅	40			500nb	30	3.5	3.0p		
18	2N1678	120m	25MΔ	#S	60	60	∅	25u	5.0∅	1.0m	25			20ub			5.0p	Δ	TO9
19	2N643F	120m	30M∅	Δ	30	29	∅	10u∅	7.0∅	5.0m∅	45	1		2.0p	D	TO9			
20#	2SA75	120m	30M	∅	20	.50		50m	50u	3.0	20m	70		5.0p∅	D	TO44	A	G	
21#	XA141	120m	30.5M	∅	30	2.0	100m	10u∅	7.0∅	5.0m∅	45	1		2.0p	Δ	TO33			
22	2N1524/33	120m	33.M	#A	24	.50	10m	16u	12∅	1.0m	60			2.0p	D	TO33			
23	2N608	120m	35M	#S	15	.50		25u	7.5∅	1.0m∅	75			3.0p	D				
24	2N603	120m	40M∅	#S	30	20	1.0	8.0u∅	1.0∅	500uΔ	30	1	1	500nb	30	4.0	3.0p	TO9	A
25	2N1633	120m	40.M	#A	34	1.0	10m	16u∅	12∅	1.0m	75			2.0p	D	TO9			
26	2N1634	120m	40.M	#A	34	1.0	10m	16u∅	12∅	1.0m	75			2.0p	D	TO9			
27	2N1638/33	120m	40.M	#A	34	1.0	10m	7.0u∅	12∅	1.0m	75			2.0p	D	TO33			
28#	2SA370	120m	40.M	#J	75	1.0	50m	12u∅	9.0∅	1.0m	70			2.5p	D	X35			
29	2N1631	120m	45.M	#A	34	1.0	10m	16u∅	12∅	1.0m	80			2.0p	D	TO40			
30	2N1635	120m	45.M	#A	34	1.0	10m	16u∅	12∅	1.0m	75			2.0p	D	TO9			
31	2N1636	120m	45.M	#A	34	1.0	10m	16u∅	12∅	1.0m	75			2.0p	D	TO9			
32	2N1637/33	120m	45.M	#A	34	1.5	10m	5.0u∅	12∅	1.0m	80			2.0p	D	TO33			
33	2N1639/33	120m	45.M	#A	34	1.0	10m	7.0u∅	12∅	1.0m	75			2.0p	D	TO33			
34	2N644F	120m	50M∅	Δ	30	29	∅	10u∅	7.0∅	5.0m∅	45	1		2.0p	D	TO9	A		
35#	XA142	120m	50.M	#S	30	2.0	100m	10u∅	7.0∅	5.0m∅	45	1		2.0p	Δ	TO33			
36#	2N604F	120m	60M∅	#S	30	20	2.0	8.0u∅	1.0∅	500uΔ	40	1	1	250nb	27	3.0	3.0p	TO9	A
37	2N645F	120m	75M∅	Δ	30	29	∅	10u∅	7.0∅	5.0m∅	45	1		2.0p	D	TO9			
38#	XA143	120m	75.M	#S	30	2.0	100m	10u∅	7.0∅	5.0m∅	45	1		2.0p	Δ	TO33			
39#	2SA280	120m*	80M	∅	30	.50	30m	6.0u∅	2.0	10m	125	1		1.5p	AD	TO7			
40#	2SA281	120m*	80M	∅	50	.50	30m	6.0u∅	2.0	10m	125	1		1.5p	AD	TO7			
41	A1383	120m	80.M	#J	32	32	1.2	30m	3.0u∅	10	1.0m	20	1	1	PD∅	TO12			
42	A1384	120m	80.M	#J	32	32	1.2	30m	3.0u∅	6.0	1.0m	20	1	1	PD∅	TO39			
43	2N384/33	120m	100M	#S	40	40	.50	10m	50u	12∅	1.5m∅	60		3p∅	D	TO33			
44	2N1285	120m	100M	#S	40	2.5	10m	12u∅	12∅	1.5m∅	100	1	1	3p∅	D	TO33			
45#	2SA301	120m*	100M	∅	30	.50	30m	6.0u∅	1.0	10m	125	1		1.5p	AD	TO7			
46	40005	120m	100M	Δ	40	40	∅	.50	10m	12u∅	12∅	1.5m∅	90	2.0p	D	TO44			
47#	SFT155	120m	100M	#J	35	.50	10m	50u	12∅	1.5m∅	60			1.8p	D				
48#	XA131	120m	100M	#A	40	.50	10m	12u∅	12∅	1.5m∅	60			2.0p	Δ	TO33			
49	40006	120m	120M	Δ	40	40	∅	.50	10m	12u∅	12∅	1.5m∅	90	2.0p	D	TO44			
50#	AF182	120m	120MΔ	#J	15	.50	10m	15u	12∅	5.0m∅	70	Δ		2.0p	D	TO5			
51	GT14	125m	300k	#S	25	10	100m	25u	.50∅	1.0m	28			35p	A				
52	TR11	125m		#S	100		100m	450u	4.5	1.0m	18				A				
53	TR15	125m		#S	25		100m	60u∅	4.5	1.0m	75				A				
54	TR16	125m		#S	25		100m	60u∅	4.5	1.0m	150				A				
55	TR17	125m		#S	25		100m	60u∅	4.5	1.0m	150				A				
56	TR21	125m		#J	12		100m	60u∅	4.5	1.0m	20				A				
57	TRM15	125m		#S	25		100m	60u∅	4.5	1.0m	75				A				
58	TRM16	125m		#S	25		100m	60u∅	4.5	1.0m	150				A				
59	TRM17	125m		#S	25		100m	60u∅	4.5	1.0m	150				A				
60	TRM21	125m		#J	12		100m	60u∅	4.5	1.0m	20				A				
61#	2SA173	125m	40k	∅	20		10	50m	8.0u	1.0∅	10m	60	1						
62#	GTE1	125m	300k	∅	10m	300m		10m	12u	2.0	3.0m∅	47			A	At	TO5		
63#	GTE2	125m	300k	∅	30		10	250m	10u	8.0∅	10m∅	22			A	At			
64#	GTV	125m	300k	∅	30		1.0	10m	12u	2.0	500u∅	30			A	At			
65	2N109/2N217EQ	125m	350k	∅	32		10	70m	4.5u∅	6.0	10m	70			A				
66	2N217EQ	125m	350k	∅	32		10	70m	4.5u∅	6.0	10m	70			A				
67#	NKT247	125m	35M	∅	60			250m		1.5	80m	60			A		R65		
68#	GFT31	125m	400k	∅	15		10		20u	3.0	30m	30			A		TO30		
69#	GFT31/15	125m	400k	∅	15		10	300m	20u	3.0	30m	30			A		TO30		
70#	GFT31/30	125m	400k	∅	30		10		20u	3.0	30m	30			A		TO30		
71#	GFT31/60	125m	400k	∅	60		10		20u	3.0	30m	30			A		TO30		
72#	GFT32	125m	500k	∅	15		10		20u	3.0	50m	50			A		TO30		
73#	GFT32/15	125m	500k	∅	15		10	300m	20u	3.0	50m	50			A		R21		
74#	GFT32/30	125m	500k	∅	30		10		20u	3.0	50m	50			A		R21		
75#	GFT32/60	125m	500k	∅	60		10		20u	3.0	50m	50			A		R21		
76#	GFT34	125m	600k	∅	15		10		20u	3.0	75m	75			A		TO30		
77#	GFT34/15	125m	600k	∅	15		10	300m	20u	3.0	75m	75			A		R21		
78#	GFT34/30	125m	600k	∅	30		10		20u	3.0	75m	75			A		R21		
79#	GFT34/60	125m	600k	∅	60		10		20u	3.0	75m	75			A		R21		
80#	V10/15A	125m	600k	∅	10		10	30m	20u	4.5	1.0m	20			A				
81#	2SB161	125m	650k	∅	30		10	100m	10u∅	1.0∅	50m∅	50	1		A		TO5		
82#	NKT246	125m	70M	∅	15			75m	6.0	1.0m	75			30p	A		R65		
83#	V10/30A	125m	700k	∅	10		10	30m	4.5	1.0m	40			1.0u	59	9.7	35p	A	
84	OC75N	125m	750k	∅	30		30	50m	5.0u	2.0∅	3.0m	90			A		TO1	A	
85#	TS13	125m	750k	∅	30			25m	10u	9.0	1.0m	52			A				
86#	TS14	125m	750k	∅	30			25m	10u	9.0	1.0m	32							

2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	TYPE No.	I (MAX. COLL. DISS. @25°C (W)	f (Hz)	DERATE IN AIR W/C	T M E X P	ABS MAX RATINGS @25°C				MAX. lcbto @MAX (Vc)	TYPICAL 'h' PARAMETERS						Cob (F)	DESCRIPTION STRUCTURE	DWG. No.	L C O A D E
						Vcbo (V)	Vceo (V)	Vbebo (V)	Ic (A)		Vcb (V)	Ie (A)	hfe	COMMON EMITTER hoe (mhos)	hie (Ω)	hre (X.0001)				
1#	SFT135	150m	2.5M	3.0m	QJ	35		20	250m	6.0u	1.0u	30m	30 t				15p	AΔ		
2#	XS101	150m	2.5MΔ	3.0m	QJ	21		21		5.0u	5.0u	1.0m	20	22u	600	1.5	10p	AΔ	R35	
3#	XS121	150m	2.5MΔ	3.0m	QJ	21		21		5.0u	1.0u	100m	18 t	22u	600	1.5	10p	AΔ	T05	
4#	MA897	150m	2.7M	2.5m	#J	30	30 φ	10	200m	100u	6.0u	1.0m	180 Δ				25p	A	T05	
5#	2G308	150m	3.0M	2.3m	#J	15		10	100m	10u	6.0u	1.0m	50				12p	A	R51	
6#	2N1404A	150m	3.0MΔ	2.5m	#J	25	15	20	300m	5.0u	2.0u	24m	24 tΔ				20p	A	T05φ	
7#	AC161	150m	3.0MΔ	2.5m	#J	15		9.0	100m	15u	6.0u	1.0m	100	60u	2.7k	5.0	8.0p	Aφ	T01	
8#	SFT106	150m	3.0M	2.5m	#J	18		12	100m	10u	6.0u	1.0m	28				25p	A	RO1	
9#	TR526	150m	3.0M	2.5m	#J	45		15	500m	10u	5.0u	1.0m	73	420nb	30	6.5	25p	A		
10#	2G323	150m	3.1M	3.7m	#J	16	16 §	15	100m	16u	5.0u	1.0m	70		2.0k	8.0	25p	Aφ	T05	
11#	TR527	150m	3.3M		#J	45		15	500m	10u	5.0u	1.0m	91	370nb	31	8.0	25p	A		
12#	2G324	150m	3.4M	3.7m	#J	16	16 §	15	100m	16u	5.0u	1.0m	88		2.6k		27p	Aφ	T05	
13#	2G354	150m	3.5M	2.5m	#S	10	10	20	200m	6.0u	1.0u	10m	25 t				12p	A	T05	
14#	2SA65	150m	3.8MΔ	3.0m	QJ	18	18	12	200m	12u	5.0u	100m	80				12p	A	T01	A
15#	2N1381	150m	4.0M	2.5m	#S	25	20	15	200m	6.0u	1.5u	25m	40 tΔ				20p	A	T05§	
16#	CP98	150m	4.0MΔ		#J	65		55			30m	30 tΔ					15p	AΔ	T05	
17#	GT2693	150m	4.0M	2.5m	#J	30	15	20		25u	5.0u	1.0m	50	5.0ub			15p	FA	T05	
18#	GT2895	150m	4.0M	2.5m	#J	30	15	20		25u	5.0u	1.0m	20	5.0ub			15p	FA	T05	
19#	TIXA01	150m	4.0MΔ	2.0m	#S	50	35	40	150m	5.0u	6.0u	1.0m	180	72u	4.8k	19	10p	A	T039	
20#	TIXA02	150m	4.0MΔ	2.0m	#S	40	25	30	150m	5.0u	4.0u	50m	200	80u	10k	41	10p	A	T039	
21#	2G508	150m	4.4M	3.7m	#J	18	16 §	16	100m	16u	5.0u	1.0m	112		3.2k		27p	Aφ	T05	
22#	2G509	150m	4.4M	3.7m	#J	18	16 §	16	100m	16u	5.0u	1.0m	112		3.2k		27p	Aφ	T05	
23#	2G345	150m	5.0M§	2.3m	#J	15		10	100m	10u	6.0u	1.0m	50 t				8.5p	A	R51	
24#	2G374	150m	5.0M§	2.3m	#J	20		10	100m	10u	6.0u	1.0m	50 t				20p	A	R51	
25#	2G374	150m	5.0M§	2.3m	#J	20		10	100m	10u	6.0u	1.0m	120				20p	A	R51	
26#	2G376	150m	5.0M§	2.0m	#A	30	30 §	10	300m	10u	1.0u	100m	70 t				20p	A	R51	
27#	2G377	150m	5.0M§	2.0m	#A	60	60 §	10	300m	50u	1.0u	100m	70 t				20p	A	R51	
28#	2N315B	150m	5.0M	2.0m	#S	30		20	2.0u	2.0u	5.0u	1.0m	70				14p	A	T05	
29#	2N1115A	150m	5.0MΔ	2.5m	#J	20	15	10	125m	6.0u	0.0	10m	30 tΔ				20p	AΔ	RO109	
30#	AST49	150m	5.0M	3.0m	QJ	100	20			6.0u	0.0	10m	30 tΔ				14p	A	R47	
31#	AST52	150m	5.0M	3.0m	QJ	80	20			100u	0.0	10m	30 tΔ				14p	A	R47	
32#	SFT126	150m	5.0M	2.5m	#J	24		12	250m	5.0u	6.0u	1.0m	30	24u	1.0k	3.5	9.0p	A		
33#	TIXA03	150m	5.0M	2.0m	#J	25	20	25	150m	5.0u	6.0u	1.0m	100				7.0p	A	T039	
34#	TIXA04	150m	5.0M	2.0m	#J	25	20	25	150m	5.0u	6.0u	1.0m	200				7.0p	A	T039	
35#	TIXA05	150m	5.0M	2.0m	#J	20	15	20	150m	7.0u	6.0u	1.0m	30 *Δ				7.0p	A	T039	
36#	UST760	150m	5.0M	2.5m	#J	15		15		1.0u	6.0u	1.0m	40				14p	A	T09	
37#	2G3951	150m	5.5M	2.5m	#J	30	15	20	200m	6.0u	1.0u	10m	20 tΔ		b	90	12p	A	T05	
38#	2N2209	150m	6.0MΔ	2.0m	#S	30	12	12	100m	5.0u	2.0u	24m	50 tΔ				20p	A	T05	
39#	2SA4581	150m	6.0M	2.5m	#J	25	14	15	200m	5.0u	1.0u	10m	60 t				14p	A	R107	
40#	2SA4591	150m	6.0M	2.5m	#J	25	14	15	200m	5.0u	1.0u	10m	120 t				14p	A	R107	
41#	2G302	150m	7.0M	2.5m	#J	18	10	20	200m	6.0u	5.0u	1.0m	40				12p	A	RO1	
42#	SFT107	150m	7.0M	2.5m	#J	18	10	12	100m	10u	6.0u	1.0m	40				8.0p	A		
43#	SFT127	150m	7.0M	2.5m	#J	24		12	250m	5.0u	6.0u	1.0m	35	28u	1.1k	3.5	9.0p	A		
44#	SFT136	150m	7.0M	3.0m	QJ	35		20	250m	5.0u	1.0u	30m	50 t				10p	AΔ		
45#	2SA66	150m	7.5MΔ	3.0m	QJ	18	18	12	200m	12u	5.0u	100m	80				16p	A	T01	A
46#	2G3861	150m	8.0M	2.5m	#J	30	20	20	200m	6.0u	1.0u	10m	30 tΔ		b	100	12p	A	T05	
47#	2N123/51	150m	8.0M	1.6m	#J	20	20	10	125m	6.0u	5.0u	1.0m	65	600nb	28	8.0	15p	A	T05	
48#	64T1	150m	8.0M		#J	30		20	200m	6.0u	1.0u	10m	80 t				15p	A	T05	
49#	TR123	150m	8.0M	2.5m	#J	20		10	125m	6.0u	5.0u	1.0m	65	600nb	28	8.0	15p	AΔ		
50#	TR396	150m	8.0M	2.5m	#S	30	20	20	200m	6.0u	5.0u	1.0m	90				12p	AΔ		
51#	2G6041	150m	9.2M	2.5m	#S	30	30	20	200m	6.0u	1.0u	10m	70 t				12p	A	T05	
52#	2G6031	150m	9.4M	2.5m	#J	30	15 §	20	200m	6.0u	1.0u	10m	40 tΔ				12p	A	T05	
53#	2G6051	150m	9.4M	2.5m	#J	30	20 §	20	200m	6.0u	1.0u	10m	75 t				12p	A	T05	
54#	65T1	150m	10M		#J	30	30	20	200m	6.0u	1.0u	10m	90 t				12p	A	T05	
55#	R212	150m	10MΔ	2.5m	#J	30	15	20	400m	5.0u	3.5u	10m	20 tΔ				14p	A	T05	
56#	SYL1655	150m	10MΔ	2.5m	#S	30		20	400m	20u	6.0u	1.0m	75				20p	AΔ	T05	
57#	UST761	150m	10M	2.5m	#J	30	10	20	400m	1.0u	6.0u	1.0m	75				14p	A	T09	
58#	2SA67	150m	11MΔ	3.0m	QJ	18	18	12	200m	12u	5.0u	100m	80 t				16p	A	T01	A
59#	2G309	150m	12M	2.3m	#J	15		10	100m	10u	6.0u	1.0m	160				12p	Aφ	R51	
60#	2G344	150m	12M§	2.3m	#J	15		10	100m	10u	6.0u	1.0m	100 t				8.5p	A	R51	
61#	2G3971	150m	12M	2.5m	#J	30	15	20	200m	6.0u	1.0u	10m	40 tΔ		b	110	12p	A	T05	
62#	3907	150m	12M	2.5m	#J	25	12	20	200m	20u	1.5u	12m	45 t				15p	AΔ	T05	
63#	ASZ101	150m	12MΔ	5.0m	QJ	50	30 §	70	250m	30u	5.5u	200m	20 tΔ				4.0p	D	X12	
64#	2N2621	150m	13MΔ	1.8m	#S	15		1.0	100m	16u	6.0u	1.0m	15 tΔ				3.5p	A	T05	
65#	2N2624	150m	13MΔ	1.8m	#S	15		1.0	100m	16u	6.0u	1.0m	15 tΔ				3.5p	A	T05	
66#	2N2627	150m	13MΔ	1.8m	#S	15		1.0	100m	20u	6.0u	1.0m	15 tΔ				3.5p	A	T05	
67#	SFT108	150m	13M	2.5m	#J	18		12	100m	10u	6.0u	1.0m	70				9.0p	A	RO1	
68#	SFT128	150m	14M	2.5m	#J	24		12	250m	5.0u	6.0u	1.0m	55	42u	1.7k	3.8	9.0p	A		
69#	2N2622	150m	15MΔ	1.8m	#S	24		1.0	100m	12u	12u	1.0m	15 tΔ				3.5p	A	T05	
70#	2N2625	150m	15MΔ	1.8m	#S	24		1.0	100m	12u	12u	1.0m	15 tΔ				3.5p	A	T05	
71#	2N2628	150m	15MΔ	1.8m	#S	24		1.0	100m	14u	12u	1.0m	15 tΔ				3.5p	A	T05	
72#	2N3000	150m	15M	2.5m	#J	45	15	35	400m	50u	5.0u	1.0m	110				10p	AΔ	T05	
73#	2N2623	150m	16MΔ	1.8m	#S	32		1.0	100m	8.0u	12u	1.0m	20 tΔ				3.5p	A	T05	
74#	2N2626	150m	16MΔ	1.8m	#S	32		1.5	100m	8.0u	12u	1.0m	20 tΔ				3.5p	A	T05	
75#	2N2629	150m	16MΔ	1.8m	#S	32		1.5	100m	10u	12u	1.0m	10 tΔ				3.5p	A	T05	
76#	UST762	150m	20M	2.5m	#J		10			1.0u	6.0u	1.0m	100				14p	A	T09	

2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 DERATE IN FREE AIR W/°C	T M E A M P	ABS MAX RATINGS @25°C			TYPICAL 'h' PARAMETERS			COMMON EMITTER			Cob (F)	DESCRIPTION	L C O D E		
					BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	Icbo (A)	Vcb (V)	le (A)	hfe	hoe (mhos)				hie (Ω)	hre (X.0001)
					h _{FE}	h _{FE}	h _{FE}	h _{FE}	h _{FE}	h _{FE}	h _{FE}	h _{FE}	h _{FE}				h _{FE}	h _{FE}
1	101Mf	150m	320M	2.0m	#J	15	5.0	100m	10u	3.0	50m	40	†	ME	TO18	A		
2	201B	150m	320M	2.0m	#J	15	2.0	100m	10u	5.0	115m	45	Δ	D	TO18	A		
3	201M	150m	320M	2.0m	#J	15	2.0	100m	10u	5.0	115m	45	Δ	D	TO18	A		
4	T1711A	150m	360M	2.0m	#J	18	2.0	100m	1.5u	7.0	50m	50	†	ME	TO18	A		
5	107A	150m	375M	2.0m	#J	40	5.0	100m	10u	5.0	400u	25	†	ME	TO18	A		
6	107B	150m	375M	2.0m	#J	40	5.0	100m	10u	5.0	400u	25	†	ME	TO18	A		
7	107M	150m	375M	2.0m	#J	40	5.0	100m	10u	5.0	400u	25	†	ME	TO18	A		
8	207A	150m	375M	2.0m	#J	40	5.0	100m	10u	5.0	400u	25	†	ME	TO18	A		
9	207B	150m	375M	2.0m	#J	40	2.0	100m	10u	5.0	1.5m	45	Δ	ME	TO18	A		
10	207M	150m	375M	2.0m	#J	40	2.0	100m	10u	5.0	1.5m	45	Δ	ME	TO18	A		
11	2N977†	150m	400M	2.0m	#S	15	10	200m	5.0u	50	100m	40	Δ	ME	TO18	A		
12	2N1665	150m	400M	2.0m	#S	15	12	200m	5.0u	60	100m	40	Δ	ME	TO18	A		
13	2N2828	150m	400M	2.0m	#S	15	13	30	5.0u	6.0	2.0m	8.0	Δ	ME	TO18	A		
14#	2SA411†	150m	400M	2.0m	#S	15	15	150m	5.0u	30	10m	40	†	PEM	RO38	A		
15	2N559†	150m	440M	2.0m	#S	15	5.0	50m	3.0u	1.0	10m	50	†	PEM	TO28	A		
16	2N960/46†	150m	460M	2.0m	#J	15	15	2.5	3.0u	30	10m	40	†	EM	TO46	A		
17	2N961/46†	150m	460M	2.0m	#J	12	12	2.0	3.0u	30	10m	40	†	EM	TO46	A		
18	2N962/46†	150m	460M	2.0m	#J	12	12	1.3	3.0u	30	10m	40	†	EM	TO46	A		
19	2N964/46†	150m	460M	2.0m	#J	15	15	2.5	3.0u	30	10m	40	†	EM	TO46	A		
20	2N109A	150m	645M	2.0m	#J	30	15	1.0	5.0u	6.0	4.0m	70	†	DM	TO28	A		
21#	MM2550†	150m	1.0G	2.0m	#J	20	10	.50	100m	10u	5.0	10m	20	Δ	EM	TO18	A	
22	TIX3023	150m	2.4G	2.0m	#S	15	7.0	.30	50m	6.0u	5.0	6.0m	40	Δ	EM	u26	A	
23	UST10	165m	2.8m	2.0m	#J	15	50		25u	6.0	1.0m	22		A	TO9			
24	UST8	165m	2.8m	2.0m	#J	15	25		6.0	6.0	1.0m	22		A	TO9			
25	UST722	165m	2.8m	2.0m	#J	15	25		6.0	6.0	1.0m	22		A	TO9			
26	UST87	165m	2.8m	2.0m	#J	15	25		6.0	6.0	1.0m	22		A	TO9			
27	2N1287	165m	1.0M	2.8m	#	20		15	300m	10u	5.0	10m	40		A	TO5		
28	2N1287A	165m	1.0M	2.8m	#	20		15	300m	10u	5.0	10m	40		A	TO5		
29	UST88	165m	1.0M	2.8m	#J	15			6.0u	6.0	1.0m	80		A	TO9			
30	UST19	165m	1.5M	2.8m	#J	15			6.0u	6.0	1.0m	80		A	TO9			
31#	XC101	166m	3.3m	3.0m	Δ	35			10u	5.0	8.0m	66		A	R35			
32#	2SA128	170m	3.4m	3.0m	Δ	40			500m	5.0u	1.0	400m	35		A	TO44	G	
33#	2SA129	170m	3.4m	3.0m	Δ	40			500m	5.0u	1.0	400m	30		A	TO44	G	
34	MA1112	175m			#S	15	15	15	200m	15u	6.0	1.0m	30	Δ		TO5		
35	MA1113	175m			#S	15	15	15	200m	15u	6.0	1.0m	50	Δ		TO5		
36	MA1114	175m			#S	15	15	15	200m	15u	6.0	1.0m	100	Δ		TO5		
37	MA1115	175m			#S	15	15	15	200m	15u	6.0	1.0m	30	Δ		TO5		
38	MA1116	175m			#S	15	15	15	200m	15u	6.0	1.0m	50	Δ		TO5		
39	MA1117	175m			#S	15	15	15	200m	15u	6.0	1.0m	100	Δ		TO5		
40	MA286	175m			#S	10	10	10	200m	10u	6.0	1.0m	14	Δ		TO5		
41	MA287	175m			#S	10	10	10	200m	10u	6.0	1.0m	30	Δ		TO5		
42	MA288	175m			#S	10	10	10	200m	10u	6.0	1.0m	180	Δ		TO5		
43	MA890	175m	750k	2.9m	#J	40	40	15	200m	100u	6.0	1.0m	30	Δ		TO5		
44	MA891	175m	1.0M	2.9m	#J	40	40	15	200m	100u	6.0	1.0m	50	Δ		TO5		
45	MA892	175m	1.2M	2.9m	#J	40	40	15	200m	100u	6.0	1.0m	100	Δ		TO5		
46	MA893	175m	1.7M	2.9m	#J	40	40	15	200m	100u	6.0	1.0m	190	Δ		TO5		
47#	2SA174	175m	4.0M	3.5m	Δ	20			50m	8.0u	1.0	10m	60	†	A	MM4		
48	TS1000	175m	12M	2.9m	#J	30			400m	20	1.0m	60	†	A	MM4			
49#	2SA170	175m	15M	3.5m	Δ	20			50m	8.0u	1.0	10m	70	†	A	MM4		
50#	TJ1	180m	.50M	3.0m	*				10u	1.0	2.0m	10		A				
51#	TJ2	180m	.50M	3.0m	*				10u	1.5	2.0m	30		A				
52#	TJ3	180m	.50M	3.0m	*				10u	1.5	2.0m	50		A				
53#	2SB162	180m	650k	3.5m	Δ	30			100m	10u	1.0	50m	50	†	A	MM5		
54#	NKT222	180m	750k	3.5m	Δ	30	30	10	125m	40u	4.5	25m	150	†	A	TO5		
55#	NKT226	180m	750k	3.5m	Δ	30	30	10	125m	40u	4.5	25m	50	Δ	A	TO5		
56#	NKT227	180m	750k	3.5m	Δ	60	60	10	125m	40u	4.5	25m	150	†	A	TO5		
57#	2SB164	180m	800k	3.5m	Δ	30	30	10	100m	10u	1.0	50m	70	†	A	MM5		
58#	2SB166	180m	1.0M	3.5m	Δ	30	30	10	100m	10u	1.0	50m	100	†	A	MM5		
59#	NKT252	180m	1.0M	3.0m	#J	12	12	25	5.0u	4.5	1.0m	35	Δ	A	TO22			
60#	NKT254	180m	1.0M	3.0m	#J	12	12	25	5.0u	4.5	1.0m	85	Δ	A	TO22			
61#	TK23A	180m	1.0M	4.0m	Δ	50			12	1.0m	50			A				
62#	2SB102	180m	1.2M	3.5m	Δ	30			10	6.0	1.0m	60		A				
63#	2SB104	180m	1.2M	3.5m	Δ	30			10	100m	10u	1.0	50m	70	†	A	MM5	
64	TR381	180m	1.2M	2.8m	#J	25	25		400m	15u	5.0	1.0m	24		A			
65	TR460	180m	1.2M	2.7m	#J	45	45	10	400m	15u	5.0	1.0m	29		A			
66	TR461	180m	1.2M	2.7m	#J	45	45	10	400m	15u	5.0	1.0m	44		A			
67#	NKT202	180m	1.5M	3.5m	Δ	30	30	10	125m	40u	4.5	25m	150	†	A	TO22		
68#	NKT203	180m	1.5M	3.5m	Δ	30	30	10	125m	40u	4.5	1.0m	45		A	TO22		
69#	NKT204	180m	1.5M	3.5m	Δ	30	30	10	125m	40u	4.5	1.0m	35		A	TO22		
70#	NKT205	180m	1.5M	3.5m	Δ	30	30	10	125m	40u	4.5	1.0m	30		A	TO22		
71#	NKT206	180m	1.5M	3.5m	Δ	30	30	10	125m	40u	4.5	1.0m	100		A	TO22		
72#	NKT207	180m	1.5M	3.5m	Δ	60	60	10	125m	40u	4.5	25m	150	†	A	TO22		
73#	TK40A	180m	1.5M	4.0m	Δ	40			40	12	1.0m	90		AB				
74	TR382	180m	1.5M	2.8m	#J	25	25	10	200m	10u	1.0	20m	52		A			
75#	421T1	180m	2.0M	3.3m	Δ	20	20	6.0	500m	18u	1.0	150m	60	Δ	A	TO1		
76#	2SA250	180m	.50M	2.3m	Δ			.50	10m	18u	6.0	1.0m	100		D			
77	2N422A	185m	1.5M	2.5m	#S	35	20	12	200m	6.0u	6.0	1.0m	30	Δ	Δ	TO5		
78	2N73	200m			*		50							Δ	AD			
79	2N74	200m			*		50							Δ	AD			
80	2N75	200m			#	26	16	3.0	50m	100u	5.0	1.0m	15	Δ	AD			
81#	AC115	200m			#	26	16	3.0	50m	100u	5.0	1.0m	15	Δ	A		TO1	
82#	ASY631	200m	4.0m		Δ	26	8.0		10u	1.0	3.0m	25	Δ		A	R47		
83#	NKT278	200m	3.1m		#J	15			5.0	125m	10u	4.5	1.0m	45	Δ	A	TO1	A
84	TS601	200m			#J	12	9.0	5.0	400m	20u	1.0	10m	37	†	A	TO9		
85	TS602	200m			#J	12	9.0	5.0	400m	20u	1.0	10m	60	Δ	A	TO9		
86	TS603	200m			#J	20	18	5.0	400m	20u	1.0	10m	37	†	A	TO9		
87	TS604	200m			#J	20	18	5.0	400m	20u	1.0	10m	60	Δ	A	TO9		
88#	ACY34	200m	200k	4.0m	Δ	30	10		12u	2.0	500u	20	Δ		A	R47		
89#	ACY35	200m	300k	4.0m	Δ	30	10		12u	2.0	3.0m	30	Δ		A	R47		
90#	ACY36	200m	350k	4.0m	Δ	32	16		12u	2.0	80m	30						

2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	TYPE No.	1] MAX. COLL. DISS. @25°C (W)	2] fab (Hz)	DERATE I T				ABS MAX RATINGS @25°C				MAX. I _{cb} @MAX V _{cb} (A)	TYPICAL h _{FE} PARAMETERS						Cob (F)	DESCRIPTION		L E A D E
				IN FREE AIR W/°C	M A X P	V _{cb} (V)	V _{ce} (V)	V _{be} (V)	I _c (A)	BIAS			COMMON EMITTER			STRUCTURE	DWG. No.					
										V _{cb} (V)	I _e (A)		h _{fe}	h _{oe} (mhos)	h _{ie} (Ω)			h _{re} X.0001				
1#	2G5251	225m	2.5M	3.7m	#J	45	30	15	500m	10u	5.0	1.0m	44	600nb	3.1	5.0	27p	A	T05			
2#	2G577	225m	2.5M	3.7m	#J	70	30	15	500m	30u	5.0	1.0m	65	500nb	29	5.0	27p	A	T05			
3#	2G1025†	225m	2.5M	3.7m	#J	70	40	20	500m	30u	5.0	1.0m	44	640nb	29	4.5	27p	A	T05			
4#	2G5261	225m	3.0M	3.7m	#J	45	30	15	500m	10u	5.0	1.0m	64	420nb	30	6.5	27p	A	T05			
5#	2G1026†	225m	3.0M	3.7m	#J	70	40	20	500m	30u	5.0	1.0m	64	450nb	28	5.0	27p	A	T05			
6#	2G321	225m	3.1M	3.7m	#J	30	20	3.0	200m	16u	1.0	20m	85	b	30		27p	A	T05			
7#	2G5271	225m	3.3M	3.7m	#J	45	30	15	500m	10u	5.0	1.0m	81	370nb	29	8.0	27p	A	T05			
8#	2G1027†	225m	3.3M	3.7m	#J	70	40	20	500m	30u	5.0	1.0m	87	420nb	28	5.2	27p	A	T05			
9#	2SA86	225m	5.0M	4.5m	∅J	45	30	1.0	10m		9.0	1.0m	80	8.5u	2.2k	1.7	2.2p	A	T044			
10#	ASY12	227m		4.5m	∅J	32	32		800m	20u	.60	600m	20					A	R43			
11#	ASY13	227m		4.5m	∅J	60	60		600m	20u	.60	600m	20					A	R43			
12#	OC318	227m	1.5M	4.5m	∅J	20	20		300m	20u	1.0	300m	65					A	R43			
13#	2G270	240m	2.5M	4.0m	#J	30	20		200m	16u	1.0	100m	40			120		A	T05			
14#	2G271	240m	3.1M	4.0m	#J	30	20		200m	16u	1.0	100m	75			200		A	T05			
15#	2N2718†	240m	150MΔ	3.2m	#S	20	12	3.5	400m	7.0u	.27	170m	25					A	T05			
16#	GA52996	250m			#S	100		100	50m								10p	A	PC			
17#	TF75	250m			#A				125m													
18#	T1000	250m	60M									20m	30								T025	
19#	T1001	250m	.60M									120	85								T025	
20#	2G381	250m	1.0MΔ			20	20	3.0	500m		6.0	1.0m	30				35p	A	R51			
21#	2G382	250m	1.0MΔ			30	30		500m		6.0	1.0m	30				35p	A	R51			
22#	2G383	250m	1.0MΔ	3.8m	#J	70	30	12	1	10u	1.0	50m	40					A	T05			
23#	2G384	250m	1.0MΔ	3.8m	#J	50	25	12	1	10u	1.0	50m	55					A	T05			
24#	2G385	250m	1.0MΔ	3.8m	#J	50	25	12	1	10u	1.0	50m	100					A	T05			
25#	2G386	250m	1.0MΔ	3.8m	#J	40	20	12	1	10u	1.0	50m	55					A	T05			
26#	2G387	250m	1.0MΔ	3.8m	#J	40	20	12	1	10u	1.0	50m	100					A	T05			
27#	2SB268	250m	1.0M	4.1m	#J	30	30	15	150m	10u	1.0	150m	70					A	R27	A		
28#	2SB317	250m	1.0M	4.2m	#J	16	16	6.0	300m	14u	1.0	150m	60					A	R27	A		
29#	2SA41	250m	6.0M			35	20	40m	50u	6.0	1.0m	45		23u	1.3k	2.9	10p	A	T01			
30#	2SA42	250m	6.0M			45	20	40m	50u	6.0	1.0m	45		21u	1.3k	2.7	10p	A	T01			
31	2N1174†	250m	7.0M	3.3m	#J	35	35	35	200m	10u	1.0	500u	85			170nb	56	8.3	15p	A	T029	
32	2N1495A	250m	150MΔ	3.3m	#S	40	25	4.0	500m	2.0u	.50	200m	25				6.5p	A	T09			
33	2N1403	250m	200MΔ	3.0m	#S	15	12	1.0	100m	7.0u	1.5	7.0m	25				6p	A	RO24			
34	2N537	250m	600MΔ	3.3m	#J	30	30	1.0	100m	3.0u	10	10m	24			12ub	5.7		3.0p	D	T029	
35	2N509	250m	750M	3.3m	#J	30	2.0	40m	5.0u	10	10m	49				10ub	6.0	13	2.5p	A	T09	
36	XT200	250m	1.0GΔ	3.3m	#S	35	2.0	300m	5.0u									11p	A	T09		
37	2N2786	260m	225MΔ	4.0m	#S	35	20	50	150m	10u	2.0	100m	33				30		5.0p	PD	T039	
38	2N2786A	280m	225MΔ	4.3m	#S	35	20	50	150m	10u	2.0	100m	33				30		5.0p	PD	T039	
39	2N2100A†	300m		4.0m	#S	40	20	4.0	500m	12u	1.0	200m	30						20p	PD	T09	
40	2N2238	300m		30u	#	30	1.0	50m	100u	10	10m	24				20u	10	30	3.0p		T05	
41	B1022	300m		2.5m	#	15	15	300m	25u	5.0	10m	20									T05	
42#	NKT239	300m		5.0m	#J	50	30	12	1.0	10u	0.0	50m	80				2.0k				T05	
43#	NKT240	300m		5.0m	#J	40	20	12	1.0	10u	0.0	50m	50								T05	
44#	NKT241	300m		5.0m	#J	40	20	12	1.0	10u	0.0	50m	90								T05	
45#	NKT242	300m		5.0m	#J	20	15	12	1.0	10u	0.0	50m	30								T05	
46#	NKT243	300m		5.0m	#J	110	40	12	1.0	10u	0.0	50m	50								T05	
47#	NKT244	300m		5.0m	#J	32	18	12	1.0	10u	0.0	50m	30								T05	
48#	NKT245	300m		5.0m	#J	32	18	12	1.0	10u	0.0	50m	50								T05	
49	2N674	300m	.40MΔ	5.0m	#J	75	70	2	100u	1.5	1	40	#								T05	
50	2N670	300m	.65M	5.0m	#J	40	40	2	75u	1.5	1	100	†								R2	
51#	AT128	300m	.70MΔ	5.0m	#J	32	32	15	1	14u											T01	
52#	NKT221	300m	750kΔ	5.0m	∅J	30	30	∅	500m	40u		500m	30				60p	A			T05	
53#	NKT228	300m	750kΔ	5.0m	∅J	30	30	∅	500m	40u		500m	30				60p	A			T05	
54#	NKT237	300m	750kΔ	5.0m	#J	30	32	12	1.0	10u	0.0	50m	50								T05	
55#	NKT238	300m	750kΔ	5.0m	#J	50	30	12	1.0	10u	0.0	50m	40								T05	
56#	2SB451	300m	1.0M	5.0m	#J	25	25	6.0	1.0	30u	1.0	150m	80								R107	
57#	2SB452	300m	1.0M	5.0m	#J	25	25	6.0	1.0	30u	1.0	150m	150								R107	
58#	2SB452A	300m	1.0M	5.0m	#J	32	25	6.0	1	30u	1.0	150m	150								R107	
59#	NKT251	300m	1.0M	5.0m	#J	18	18	∅	500m	5.0u	1.5	200m	50								T022	
60#	NKT253	300m	1.0M	5.0m	#J	18	18	∅	500m	5.0u	1.5	200m	25								T022	
61#	NKT263	300m	1.0M	5.0m	#J	18	18	∅	500m	5.0u	1.5	200m	25								T05	
62#	NKT222S1	300m	1.2MΔ	5.0m	#J	40	30	∅	12	1	100u	0.0	50m	50				40p	A		T05	
63#	NKT201	300m	1.5M	5.0m	#J	30	30	∅	10	500m	40u	4.5	500m	70			1.0u	65	7.0	45p	A	T022
64#	NKT208	300m	1.5M	5.0m	#J	30	30	∅	10	500m	40u	4.5	500m	70			1.0u	65	7.0	45p	A	T022
65#	NKT231	300m	1.5M	5.0m	#J	15	15	∅	10	500m	25u	4.5	1.0m	110			1.0ub	65	7.0	40p	A	T05
66#	NKT232	300m	1.5M	5.0m	#J	15	15	∅	10	500m	25u	1.5	150m	150			1.0ub	65	7.0	40p	A	T05
67#	NKT222S2	300m	1.8MΔ	5.0m	#J	40	30	∅	12	1	100u	0.0	50m	50							T05	
68	CP800	300m	2.5MΔ	4.0m	#J	45	30	1.5	25u	50	1	20									T05	
69	CP801	300m	5.0MΔ	4.0m	#J	45	30	1.5	25u	50	1	30									T05	
70	CP802	300m	10.MΔ	4.0m	#J	30	20	1.5	25u	50	1	40									T05	
71	CP803	300m	15.MΔ	4.0m	#J	30	20	1.5	25u	50	1	50									T05	
72	2N3443	300m	75MΔ	4.0m	#S	20	15	1.0	100m	5.0u	10	10m	20								T05	
73	T1440	300m	300M		#S	15	3.5	50m	3.0u	30	10m	25									T05	
74	2N2098	300m	1.0GΔ	13m	∅J	30	15	1.0	300m	15u											T09	
75#	MM2552†	300m	1.0GΔ	4.0m	#J	20	10	.50	100m	10u	5.0	25m	30								T05	
76#	MM2554†	300m	1.0GΔ	4.0m	#J	20	10	.50	200m	10u	5.0	40m	20								T05	
77	XT200A	300m	1.0GΔ		#S	30	15	1.0	300m	100u	15	7.0									T031	
78	T1442	300m	3.0G		#S	12	1.0															

2. GERMANIUM PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/C	TEMPERATURE M E X P	ABS MAX RATINGS @25°C				MAX. I _{cb0} @MAX V _{cb} (A)	TYPICAL 'h' PARAMETERS			Cob (F)	DESCRIPTION		LEAD CODE			
						BV _{cb0} (V)	BV _{ce0} (V)	BV _{eb0} (V)	I _c (A)		BIAS				COMMON EMITTER			STRUCTURE	DWG. No.	
											V _{cb} (V)	I _e (A)	h _{fe}		h _{oe} (mhos)	h _{ie} (Ω)				h _{re} X.0001
1#	2SB109A	700m	500k		ØJ	80		10	100u	2.0Ø	200mØ	15 tΔ								
2#	2SB109B	700m	500k		ØJ	80		10	100u	2.0Ø	200mØ	15 tΔ								
3#	NKT352	750m			#J	15		5.0	100uØ	1.5	1.0	20 tΔ								
4#	NKT361	750m		11m	#J	30	15 Ø	5.0	100uØ	1.5	1.0	15 tΔ								
5#	NKT362	750m		20m	#J	15	150 Ø	5.0	100uØ	1.5	1.0	20 tΔ								
6#	NKT301	750m	1.0M	11m	#J	60	40 Ø	15	1.0m	0.0	2.0 Ø	30 tΔ								
7#	NKT303	750m	1.0M	11m	#J	30	20 Ø	15	2	1.0m	0.0	30 tΔ								
8#	V6/2RJ	750m	3.0M	2.5m	ØJ	30	20 Ø	15	1.0m	0.0	2.0 Ø	30 tΔ								
9	2N1123	750mØ	10M	10m	#J	35	35 Ø	30	30m 500m	4.5	1.0m	30								
10	2N3602†	750m	20M†Δ	10m	#S	100	40	2.5	3.5	200uØ	1.5Ø	1.0 Ø	60 tΔ	15p	A	RO81Ø				
11	2N3604†	750m	20M†Δ	10m	#S	130	55	2.5	3.5	200uØ	1.5Ø	1.0 Ø	60 tΔ							
12#	GET105	800m	1.0M	20m	#J	40			25u	5.0Ø	50mØ	30 t								
13#	GET110	800m	1.0M	20m	#J	40			25u	5.0Ø	50mØ	30 t								
14#	GET115	800m	1.0M	20m	#J	15			25u	5.0Ø	50mØ	30 t								
15#	GET118	800m	1.0M	20m	#J	30			25u	5.0Ø	50mØ	30 t								
16#	GET120	800m	1.0MΔ	20m	#J	30			25u	5.0Ø	50mØ	30 t								
17	2N80	50			Ø	25			8.0m	300u1Ø	6.0	1.0mØ	80							
18	2N96	50	.50M		*A	30			30	20m	10u	6.0Ø	1.0m	35 Δ						

3. GERMANIUM NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 DERATE IN FREE AIR W/°C (Hz)	T M A M X P	ABS MAX RATINGS @25°C				MAX. I _{cb0} @MAX V _{cb} (A)	TYPICAL h _{FE} PARAMETERS			COMMON EMITTER	Cob (F)	DESCRIPTION STRUCTURE	DWG. No.	L C E A O D E			
					BV _{cb0} (V)	BV _{ce0} (V)	VE _{bo} (V)	I _c (A)		V _{cb} (V)	I _e (A)	h _{fe}						hoe (mhos)	hie (Ω)	hre (X.0001)
					IC ₀ (A)	IC ₀ (A)	IC ₀ (A)	IC ₀ (A)		IC ₀ (A)	IC ₀ (A)	IC ₀ (A)						IC ₀ (A)	IC ₀ (A)	IC ₀ (A)
1#	2SD20	150m		#J	25		10	300m	12u∅	1.0∅	20m∅	50 †			A	TO5				
2#	2SD21	150m		#J	25		10	300m	12u∅	1.0∅	20m∅	72 †			A	TO5				
3#	2SD22	150m		#J	25		10	300m	12u∅	1.0∅	20m∅	97 †			A	TO5				
4#	2SD23	150m		#J	25		10	300m	12u∅	1.0∅	20m∅	150 †			A	TO5				
5#	GT2884	150m	2.5m	#J	9.0	6.0 ∅	9.0	50u	6.0∅	1.0m	100		20p	FA	TO5					
6#	GT2886	150m	2.5m	#J	9.0	6.0 ∅	9.0	50u	6.0∅	1.0m	200		20p	FA	TO5					
7#	GT2888	150m	2.5m	#J	9.0	6.0 ∅	7.0	50u	6.0∅	1.0m	250		20p	FA	TO5					
8#	NKT774	150m	2.5m	#J	15	15 ∅	5.0	300m	15u∅	1.5	200m	25 †			A	TO1				
9#	SYL1380†	150m		∅J	25			200m	32u						A	u1				
10#	SYL1468	150m		#J	25		15	200m	10u	75∅	200m∅	60 †			Δ					
11#	SYL1591	150m		∅J	15		10	200m		40∅	1.0mΔ	25 †		30p	Δ					
12#	SYL1617	150m		#J	15		10	200m	5.0u	50∅	1.0mΔ	110 †			Δ					
13#	SYL1750	150m		#J	40		10	100m	6.0∅	1.0m∅	70				Δ					
14#	JAN2N2426	150m	25kt	#J	40	25 †	10	100m	20u	6.0∅	1.0m∅	125 †	50u∅	2.4k		TO5				
15#	2N35/5	150m	800k	#J	40		10	100m	50u	6.0∅	1.0m∅	75	30u	3.2		TO5				
16#	GT364	150m	1.0M	#S	30		2.0	10u	5.0∅	1.0m	20	500nb	50	3.5	18p	TO5				
17#	GT365	150m	1.0M	#S	30		2.0	10u	5.0∅	1.0m	40	500nb	50	3.5	18p	TO5				
18#	GT366	150m	1.0M	#S	30		2.0	10u	5.0∅	1.0m	100	500nb	50	3.5	18p	TO5				
19#	NKT751	150m	1.5M	#J	15	15 ∅	10	200m	50u	1.5∅	50m∅	30 †			A	R65				
20#	NKT752	150m	1.5M	#J	15	15 ∅	10	100m	50u	4.5∅	1.0m∅	30 †			A	R65				
21#	NKT701	150m	2.0M	#J	25			100m		1.0m∅	100				A	R65				
22#	NKT703	150m	2.0M	#J	25	25 ∅	15	200m	50u	1.5∅	50m∅	50 †			A	R65				
23#	204A	150m	2.5M	∅S	60			50m				29			A					
24#	2G339A	150m	5.0M	#J	10		3.0	300m	10u	1.0	50m	150		8.0p	A	TO5				
25#	GT2768	150m	5.0M	#J	40	10	10	250m	25u	5.0∅	1.0m	75		15p	FA	TO5				
26#	SFT259	150m	5.0M	#J	20	15	20	250m	5.0u	0.0	50m∅	20 †			A	TO5				
27#	TK33C	150m	5.0M	∅J	30	12	20	250m		4.5∅	1.0m∅	40			Δ	R47a				
28#	GT2765	150m	6.0M	#J	40	20	20	300m	25u	5.0∅	1.0m	30		15p	FA	TO5				
29#	GT2906	150m	6.0M	#J	20	15 †	15	300m	25u	25∅	300m∅	30 †		15p	FA	TO5				
30#	GT2766	150m	8.0M	#J	15	9.0		300m	25u	5.0∅	1.0m	23		15p	FA	TO5				
31#	GT2767	150m	8.0M	#J	40	15		300m	25u	5.0∅	1.0m	20		15p	FA	TO5				
32#	SFT260	150m	9.0M	#J	20	15	20	250m	5.0u	0.0	50m∅	25 †			A	TO5				
33#	2SC71	150m	10M	∅J	18	18 ∅	12	200m	7.0u∅	50∅	100m∅	100 †			Δ	TO5				
34#	SYL1327	150m	10.MΔ	#J	25		15	200m	10u	1.0∅	50m∅	40 †			A					
35#	GT1079	150m	11M	#S	20		20	200m	25u	25∅	400m∅	40 †	500nb		Δ					
36#	SFT261	150m	13.M	#J	20	15	20	250m	5.0u	0.0	50m∅	30 †			A	TO5				
37#	2SC72	150m	14M	∅J	18	18 ∅	12	200m	7.0u∅	50∅	100m∅	100 †			A	TO5				
38#	2N2426	150m	25MΔ	#S	40	25 †	20	200m	20u	6.0∅	1.0m∅	35 †	50u∅	3.2k∅		TO5				
39#	2N2482	150m	600MΔ	#J	20	12	3.0	100m	100u	6.0∅	2.0m	25 †			A	TO5				
40#	2N2899	150m	600M	#S	15	4.0	100m	100u	1.0∅	50m∅	40 †			4.5p	ME∅	TO18				
41#	2N955†	150m	1.0G	#J	12	11	2.0	100m	5.0u∅	50	30m∅	60 †		3.5p	MD	TO18				
42#	2N955At	150m	1.0G	#J	12	2.0	100m	5.0u	50∅	50∅	30m∅	50 †		4.0p	ME	TO18				
43#	2N647/22	180m		#J	25	25	2.5	50m	14u	1.0∅	50m∅	70 †			A	TO22				
44#	2N649/22	180m		#J	20	18	2.5	50m	14u	1.0∅	50m∅	65 †			A	TO22				
45#	2N2354	180m		#S	20	15 †	10	150m	50u	1.5∅	35m	50 †			A	TO22				
46#	2N1102/5	180m	150k	#J	40			100m	50u	1.5	35m∅	40 †			A	TO5				
47#	2T85	200m	1.0M	*J	25			200m	15u	1.0	20m	57 †	270nb	28	1.1	60p	TO5			
48#	NKT753	200m	1.0M	#J	10			300m	40u	1.5	200m	90 †			A	TO5				
49#	ASV88†	200m*	2.0M	#J	16	12	12	500m	100u	0.0	10m∅	120 †			A	TO1				
50#	ASV88†	200m*	2.0M	#J	26	16	12	500m	100u	0.0	10m∅	120 †			A	TO1				
51#	AC157†	200m*	2.5M	#J	26	16	6.0	500m	100u	1.0∅	125m∅	80 †			A	TO1				
52#	AC188†	200m*	2.5M	#J	32	20	6.0	500m	100u	1.0∅	125m∅	80 †			A	TO1				
53#	ASV87†	200m*	4.0M	#J	16	12	12	500m	100u	0.0	10m∅	295 †			A	TO1				
54#	ASV89†	200m*	4.0M	#J	26	16	12	500m	100u	0.0	10m∅	295 †			A	TO1				
55#	2SD100	250m		∅J	32	32 †	12	400m		1.0∅	150m∅	75 †			A	RO10				
56#	2SD193	250m		∅J	35	12	12	400m	500u	1.0∅	150m∅	100 †			A	TO9				
57#	2SD100A	250m	1.5M	∅J	45	45 †	12	400m	40u∅	1.0∅	150m∅	75 †			A	R10				
58#	2N1173	250m	6.0M	#J	35		35	200m	10u∅	1.0∅	500u∅	80	190nb	56	7.0	20p	TO29			
59#	HA5020	300m	4.0M	∅S	20		20	200m	5.0u∅	5.0	1.0m	49		15p	A					
60#	HA5022	300m	4.0M	∅S	25		25	200m	4.0u∅	5.0	1.0m	49		15p	A					
61#	HA5024	300m	4.0M	∅A	20		20	200m	5.0u∅	5.0	1.0m	49		15p	A					
62#	HA5021	300m	4.0M	*A	20		20	200m	10u∅	5.0	1.0m	49		15p	A					
63#	HA5025	300m	6.0M	∅J	20		20	200m	5.0u∅	5.0	1.0m	49		15p	A					
64#	HA5023	300m	8.0M	∅S	20		20	200m	5.0u∅	5.0	1.0m	49		15p	A					
65#	HA5026	300m	8.0M	∅J	20		20	200m	5.0u∅	5.0	1.0m	49		15p	A					
66#	2N1585	300m	400M	#J	25		20	200m	100u	1.0∅	10m∅	20 †		15p	A	TO5				
67#	HA5002	400m	1.0M	∅J	20		20	200m	20u∅	5.0	1.0m	40			A					
68#	HA5005	400m	1.0M	∅J	10		10	200m	30u∅	5.0	1.0m	20		20p	A					
69#	HA5012	400m	1.0M	∅J	20		20	200m	20u∅	5.0	1.0m	40			A					
70#	HA5016	400m	1.0M	∅J	30		30	200m	5.0u∅	5.0	1.0m	40			A					
71#	HA5003	400m	1.5M	∅J	30		30	200m	15u∅	5.0	1.0m	50			A					
72#	HA5011	400m	1.5M	∅J	40		30	200m	20u∅	5.0	1.0	50			A					
73#	HA5014	400m	2.3M	∅J	40		30	200m	20u∅	5.0	1.0m	80			A					
74#	HA5001	400m	2.5M	∅J	30		20	200m	10u∅	5.0	1.0m	60		40p	A					
75#	HA5009	400m	2.5M	∅J	10		10	200m	30u∅	5.0	1.0m	15		20p	A					
76#	2N2568	1.0 ∅	1.4GΔ	#S	32	15	1.0	100m		5.0∅	40m∅	10 †		3.0p∅		MT54				

4. SILICON PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fcb & (3) TYPE No.

LINE No.	TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 DERATE IN FREE AIR W/°C (Hz)	ABS MAX RATINGS @25°C				MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS					Cob (F)	DESCRIPTION		L C E O D A D E		
				BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)		BIAS		COMMON EMITTER				STRUC-TURE	DWG. No.			
				(V)	(V)	(V)	Vcb (V)		Ie (A)	hfe	hoe (mhos)	hie (Ω)	hre (X.0001)						
1	MF3304f		700MΔ	18	12	5.0	0.1u#	1.0	50m∅	20 Δ									
2	CK790	2.0m	.40M	#A	45		50m	20u∅		14									
3	CK793	2.0m	.50M	#A	30		50m	20u∅		16									
4	CK791	2.0m	.80M	#A	30		50m	20u∅		24									
5#	BF210	50m#	3.5M\$	#J	15		10m	10u∅		30									
6	2N1264/13	50m	300M	1.0m∅	J	20	10m	50u∅	9.0∅	1.0m	25								
7	D30A1	90m	1.2m	#J	18	18	4.0	.02u	5.0∅	10m∅	30 t#Δ								
8	D30A2	90m	1.2m	#J	18	18	4.0	.02u	5.0∅	10m∅	60 t#Δ								
9	D30A3	90m	1.2m	#J	18	18	4.0	.02u	5.0∅	10m∅	140 t#Δ								
10	SNT204	100m	769u	#J	6.0	8.0	2.0	.20u∅	2.5∅	50m∅	50 Δ								
11	2N1135	100m	909u	#S	12	12	12	50m											
12	2N1135A	100m	909u	#S	12	12	12	50m											
13	2N1606f	100m	7.2MΔ	#S	10	10	∅	10	50m	.10u	50∅	15m∅	6.0 tΔ						
14	2N1607f	100m	10MΔ	#S	10	10	∅	10	50m	.10u	50∅	15m∅	6.0 tΔ						
15	2N1428	100m	22M*	#J	6.0	6.0	∅	10	50m	100n	5.0∅	5.0m∅	30 t	1.7ub	35	7.0p	A	∇	
16	2N1608f	100m	28MΔ	#S	10	10	∅	10	50m	.10u	50∅	15m∅	6.0 tΔ						
17	2N1132/TNT	100m	96MΔ	4.0m	#J	50	35	5.0	1.0u	10∅	500u∅	30 t#Δ	1.0uZb	35 ∇	8.0pZ	45pZ	D	∇	
18	2N2303/TNT	100m	96MΔ	556u	#J	50	35	5.0	1.0u	10∅	150m∅	75 t#Δ							
19	2N2904/TNT	100m	96MΔ	556u	#J	50	35	5.0	1.0u	10∅	150m∅	75 t#Δ							
20#	SA495	150m		#S	25	25	∅	50m	1.0u	6.0∅	1.0m∅	9.0 Δ	2.5ub	90		12pZ	A	∇	
21#	SA495A	150m		#S	25	25	∅	50m	1.0u	6.0∅	1.0m∅	15 Δ	2.5ub	90		12pZ	A	∇	
22#	SA496	150m		#J	10	10		50m	100n	.50∅	15m∅	6.0 tΔ	4.0ub	100		12pZ	A	∇	
23#	SA496A	150m		#J	10	10		50m	100n	.50∅	15m∅	6.0 tΔ	4.0ub	100		12pZ	A	∇	
24#	SA496B	150m		#J	10	10		50m	100n	.50∅	15m∅	6.0 tΔ	4.0ub	100		12pZ	A	∇	
25#	SAC42B∅	150m		#J	25	25	25	50m	.05u∅	3.0∅	1.0m∅	1.5 Δ							
26#	S520	150m	1.0M	3.0m	#J	30		100m	.05u∅	3.0∅	1.0m∅	1.5 Δ							
27	JAN2N1026A	150m	2.0MΔ	1.2m	#J	35	35	35	100m	25n	6.0	1.0m	36	1.4ub	35	7.0p	A		
28	NS6211∅	150m	3.0MΔ	1.1m	#A	30	25	25	50m	5.0n∅	.50∅	1.0m∅	30 tΔ						
29#	SA50	150m	4.0MΔ		#S	20		50m	50n∅	3.0∅	1.0m∅	45 Δ	b	90					
30#	SA51	150m	4.0MΔ		#S	30		50m	100u	3.0∅	1.0m∅	10 Δ	b	90					
31#	SA52	150m	4.0MΔ		#S	30	30	30	50m	50u∅	3.0∅	1.0m∅	20 tΔ						
32#	SA52A	150m	4.0MΔ		#S	30	30	30	50m	50u	3.0∅	1.0m∅	45 tΔ						
33#	SA52B	150m	4.0MΔ		#S	30	30	30	50m	20u∅	3.0∅	1.0m∅	20 tΔ						
34#	SA70f	150m	4.0MΔ		#J	40		50m	100u	3.0∅	1.0m∅	20 Δ	b	90					
35#	SAC44∅	150m	4.0MΔ		#J	5.0	10	5.0	50m	.05u∅	3.0∅	1.0m∅	1.0 Δ						
36#	SSA43∅	150m	4.0MΔ		#S	20	10	20	50m	10n∅	3.0∅	1.0m∅	10 Δ						
37#	SSA43A∅	150m	4.0MΔ		#J	20	10	20	50m	.01u	3.0∅	1.0m∅	10 tΔ						
38#	SSA46∅	150m	4.0MΔ		#J	20	10	20	50m	.02u∅	3.0∅	1.0m∅	7.0 tΔ						
39#	SSA48∅	150m	4.0MΔ		#S	20	10	20	50m	.05u∅	3.0∅	1.0m∅	7.0 tΔ						
40	2N2181∅	150m	6.0MΔ	1.3m	#S	25	25	25	50m	.01u∅	5.0∅	5.0m∅	10 tΔ						
41	2N2182∅	150m	6.0MΔ	1.3m	#S	25	25	25	50m	.01u∅	5.0∅	5.0m∅	10 tΔ						
42	2N2183∅	150m	6.0MΔ	1.3m	#S	15	10	15	50m	.01u∅	5.0∅	5.0m∅	10 tΔ						
43	2N2184∅	150m	6.0MΔ	1.3m	#S	15	10	15	50m	.01u∅	5.0∅	5.0m∅	10 tΔ						
44	JAN2N496f	150m	7.2MΔ		#S	10	10	5.0	100n	.50∅	15m∅	6.0 Δ	2.5uZb	90 ∇		12pZ	A	∇	
45	JAN2N495	150m	8.0MΔ	1.0m	#S	25	25	5.0	1.0u	6.0	1.0m	9.0 Δ	35uZb	90 ∇	3.5 ∇	12pZ	S	∇	
46	2N495/18	150m	8.0M*Δ	1.2m	#S	25	25	10	50m	1.0u	6.0	1.0m	15 Δ						
47#	SA53	150m	10MΔ		#J	20		50m	50n∅	3.0∅	1.0m∅	20 Δ	b	90					
48#	SA54	150m	10MΔ		#J	15		50m	100u	3.0∅	1.0m∅	20 Δ	b	90					
49#	SA55	150m	10MΔ		#J	10		50m	100u	3.0∅	1.0m∅	25 Δ	b	90					
50#	SA56	150m	10MΔ		#J	5.0		50m	100u	3.0∅	1.0m∅	10 Δ	b	90					
51#	SAC40∅	150m	10MΔ		#S	15	15		50m	.05u∅	3.0∅	1.0m∅	2.5 Δ						
52#	SAC40A∅	150m	10MΔ		#J	15	15	15	50m	.05u∅	3.0∅	1.0m∅	1.5 Δ						
53#	SAC40B∅	150m	10MΔ		#J	15	15	15	50m	.05u∅	3.0∅	1.0m∅	1.5 Δ						
54#	SAC42∅	150m	10MΔ		#S	25	25	25	50m	.05u∅	3.0∅	1.0m∅	2.5 Δ						
55#	SAC42A∅	150m	10MΔ		#J	25	25	25	50m	.05u∅	3.0∅	1.0m∅	1.5 Δ						
56	2N354	150m	15M*	1.3m	#J	25	25		50m	.10u∅	6.0∅	1.0m∅	18						
57#	S500	150m	15M	3.0m	#J	25		50m	.00u∅	6.0	1.0m∅	18							
58#	S501	150m	25M	3.0m	#J	10		50m	.00u	6.0	1.0m∅	18							
59	2N496/18f	150m	28MΔ	1.3m	#S	10	10	10	50m	.10u	5.0∅	15m∅	15 tΔ						
60	TMT1132	150m	50MΔ	1.0m	#J	50	35	∅	5.0	1.0u	10∅	150m∅	30 t#Δ						
61	NS6062	150m	60M\$	1.2m	#J	10	4.0	100m	0.1u∅	3.0∅	1.0m∅	45 Δ							
62	NS6063	150m	60M\$	1.2m	#J	10	4.0	100m	0.1u∅	3.0∅	1.0m∅	70 Δ							
63	NS6064	150m	60M\$	1.2m	#J	10	4.0	100m	0.1u∅	3.0∅	1.0m∅	115 Δ							
64	NS6065	150m	60M\$	1.2m	#J	10	4.0	100m	0.1u∅	3.0∅	1.0m∅	180 Δ							
65	TMT1131	150m	60MΔ	1.0m	#J	50	35	∅	5.0	1.0u	10∅	150m∅	20 t#Δ						
66	2N1132/TPT	150m	96MΔ	833u	#J	50	35	5.0	1.0u	10∅	500u∅	30 t#Δ	1.0uZb	35 ∇	8.0 ∇	45pZ	D	∇	
67	2N2303/51	150m	96MΔ	833u	#J	50	35	5.0	1.0u	10∅	150m∅	75 t#Δ							
68	2N2303/TPT	150m	96MΔ	833u	#J	50	35	5.0	1.0u	10∅	150m∅	75 t#Δ							
69	MCS2137	150m	100MΔ	1.5m	#J	60	60	5.0	50m	.02u∅	5.0∅	1.0m∅	100 Δ	60uZ	15 ∇	25 ∇	3.0∅	EAA∅	X38
70	MCS2138	150m	100MΔ	1.5m	#J	60	60	5.0	50m	.02u∅	5.0∅	1.0m∅	300 Δ	60uZ	40 ∇	25 ∇	3.0∅	EAA∅	X38
71	2N2904/TPT	150m	200MΔ	3.4m	#S	60	40	5.0	600m	10u	10∅	150m∅	40 tΔ						
72	FK3962	175m	40MΔ	1.0m	#J	60	60	6.0	10n∅	5.0∅	10m∅	280 t#	19u	8.0k	10 ∇	6.0pZ	DPL∅	u17a	
73	FV3962	175m	40MΔ	1.0m	#J	60	60	6.0	10n∅	5.0∅	10m∅	280 t#	19u	8.0k	10 ∇	6.0pZ	DPL∅	u5a	
74	FK3964	175m	50MΔ	1.0m	#J	45	45	6.0	10n∅	5.0∅	10m∅	330 t#	25u	10k	10 ∇	6.0pZ	DPL∅	u17a	
75	FV3964	175m	50MΔ	1.0m	#J	45	45	6.0	10n∅	5.0∅	10m∅	330 t#	25u	10k	10 ∇	6.0pZ	DPL∅	u5a	
76	FK3502f	175m	150MΔ	1.0m	#J	45	45	5.0	500m	10n∅	10∅	10m∅	270 t#						
77	FK3503f	175m	150MΔ	1.0m	#J	60	60	5.0	500m	10n∅	10∅	10m∅	270 t#						
78	FV3502f	175m	150MΔ	1.0m	#J	45	45	5.0	500m	10n∅	10∅	10m∅	270 t#						
79	FV3503f	175m	150MΔ	1.0m	#J	60	60	5.0	500m	10n∅	10∅	10m∅	270 t#						
80	FK2894f	175m	350MΔ	1.0m	#J	12	12	4.0	10u∅	.50∅	30m∅	75 t#							
81	FV2894f	175m	350MΔ	1.0m	#J	12	12	4.0	10u∅	.50∅	30m∅	75 t#							
82#	BC250	200m		2.0m	#J	20	20	5.0	100m	100n∅	1.0∅	1.0m∅	35 tΔ						
83#	BC251	200m		2.0m	#J	45	45	5.0	100m	50n	5.0∅	2.0m∅	125 Δ*						

4. SILICON PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	T M E A M X P	ABS MAX RATINGS @25°C						TYPICAL 'N' PARAMETERS							Cob (F)	DESCRIPTION STRUCTURE	DWG. No.	L E O D E				
						BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	Icbo @MAX Vcb (A)	BIAS			COMMON EMITTER												
											Vcb (V)	Ic (A)	hfe	hoe (mhos)	hie (Ω)	hre (X.0001)										
1	A758A	220m	130Ms	2.0m	SJ	25	5.0	100m	100m	5.00	2.0m	180	†						PL1	MM10	A	A				
2	A758B	220m	130Ms	2.0m	SJ	25	5.0	100m	100m	5.00	2.0m	290	†						PL1	MM10	A	A				
3	A759A	220m	130Ms	2.0m	SJ	25	5.0	100m	100m	5.00	2.0m	180	†						PL0	MM10	A	A				
4	A759B	220m	130Ms	2.0m	SJ	20	5.0	100m	100m	5.00	2.0m	290	†						PL0	MM10	A	A				
5#	OC480	240m	2.0MΔ	1.9m	SJ	125	125	50m	2.0u	5.00	1.0m	15	†			25u	1.1k	6.0	40p	R41						
6	2N2709	240m	2.0MΔ	1.8m	SJ	50	35	20	1.0u	1.00	2.0m	10	†	Δ		85u	3.0k		110p	T05						
7#	OC463	240m	5.0M	1.9m	SJ	10	10	50m	2.0u	5.00	1.0m	30	†			100u	1.8k		25p	R41						
8	2N258	250m		2.0m	SS	30	30	22	50m	50u	6.0	1.0m	15	†	Δ		b	50	40p							
9	2N259	250m		2.0m	SS	30	30	22	50m	50u	6.0	1.0m	32	†	Δ		b	50	40p							
10#	BCY49	250m		2.0m	SJ	15	15	15	20m	1.0u	6.00	1.0m	25	†	Δ			18p	Δ	T05	X37					
11	2N3588	250m		1.4m	SJ	45	45	45	100m	3.0u	6.00	1.0m	1.0	†	Δ		b	35	50p	BA	T05					
12	C101	250m	400k	1.8m	SA	30		30	50m	100n	5.00	100u	9.0	†				50p	BA	R43						
13#	OC440K	250m*	.60M	2.4m	SJ	30	30	10	50m	.40u	5.00	1.0m	15	†			20u	900	4.0	30p	BA	R43				
14#	OC445K	250m*	.60M	2.4m	SJ	50	50	10	50m	.40u	5.00	1.0m	15	†			20u	900	4.0	30p	BA	R43				
15	C112	250m	700k	1.8m	SA	25		20	50m	1.0n	5.00	100u	16	†			b	35	50p	BA	R43					
16	C102	250m	800k	1.8m	SA	30		30	50m	100n	5.00	100u	13	†			b	35	50p	BA	T05					
17#	OC450K	250m*	.80M	2.4m	SA	75	75	10	50m	.40u	5.00	1.0m	15	†			20u	1.1k	4.0	30p	BA	R43				
18	C118	250m	1.0M	1.8m	SJ	12	6.0	6.0	50m	1.0n	3.00	10u	15	†				10k	50p	BA	T05					
19	C119	250m	1.0M	1.8m	SJ	12	6.0	6.0	50m	1.0n	3.00	10u	25	†				10k	50p	BA	T05					
20#	OC443K	250m*	1.0M	2.4m	SJ	25	25	20	50m	.10u	5.00	1.0m	25	†			25u	1.3k	5.0	30p	BA	R43				
21#	OC449K	250m*	1.0M	2.4m	SJ	60	60	30	50m	.50u	5.00	1.0m	25	†			25u	1.3k	6.0	30p	BA	R43				
22#	OC465K	250m*	1.0M	2.4m	SJ	20	20	10	50m	.40u	5.00	1.0m	25	†			25u	1.3k	5.0	30p	BA	R43				
23#	OC469K	250m*	1.0M	2.4m	SJ	32	32	10	50m	.40u	2.00	20m	20	†						30p	BA	R43				
24#	OC460K	250m*	1.2M	2.4m	SJ	10	10	10	50m	.40u	5.00	1.0m	30	†			25u	1.5k	6.0	30p	BA	R43				
25#	OC466K	250m*	1.2M	2.4m	SJ	10	10	10	50m	.40u	5.00	1.0m	30	†			25u	1.5k	5.0	30p	BA	R43				
26#	OC470K	250m*	1.2M	2.4m	SJ	30	30	10	50m	.40u	5.00	1.0m	30	†			25u	1.7k	6.0	30p	BA	R43				
27#	OC467K	250m*	1.5M	2.4m	SJ	25	25	20	50m	.10u	5.00	1.0m	30	†			25u	1.5k	7.0	30p	BA	R43				
28#	OC468K	250m*	2.5M	2.4m	SJ	10	10	10	50m	.40u	5.00	1.0m	60	†			40u	2.5k	7.0	30p	BA	R43				
29	2N4284	250m	7.0MΔ	2.0m	SS	25	25	25	50m	100n	5.0	1.0m	600	†			1.2u	Zb	Z	10	10p	u29				
30	2N4285	250m	7.0MΔ	2.0m	SS	35	35	35	50m	100n	5.0	1.0m	600	†			1.2u	Zb	Z	10	10p	u29				
31	SL200	250m	10MΔ	2.0m	SS	25	25	25		.10u	5.00	10m	50	†						10p	PE	u29				
32	HA90541	250m	25MΔ	1.8m	SA	15		5.0		200n	10	2.0m	25	†			b	30	Z	10p	ME	T018				
33	HA90561	250m	25MΔ	1.8m	SA	30		5.0		200n	10	2.0m	25	†			b	30	Z	10p	ME	T018				
34	HA90581	250m	25MΔ	1.8m	SA	50		5.0		200n	10	2.0m	25	†			b	30	Z	10p	ME	T018				
35	HA90551	250m	40MΔ	1.8m	SA	15		5.0		200n	10	2.0m	55	†			b	30	Z	10p	ME	T018				
36	HA90571	250m	40MΔ	1.8m	SA	30		5.0		200n	10	2.0m	55	†			b	30	Z	10p	ME	T018				
37	HA90591	250m	40MΔ	1.8m	SA	50		5.0		200n	10	2.0m	55	†			b	30	Z	10p	ME	T018				
38	HA7206	250m	45M	2.0m	SA	70		4.0		250n	10	2.0m	10	†			300nb	20	600m	3.0p	ME†	T018				
39	HA7207	250m	55M	2.0m	SA	70		4.0		250n	10	2.0m	10	†			300nb	20	600m	3.0p	ME†	T018				
40	MT1131	250m	80.M	1.7m	SJ	50		5.0		1.0u	100	150m	35	†						35p	PE	u13				
41	MT1131A	250m	80.M	1.6m	SJ	60		5.0		500n	100	150m	20	†	Δ		1.0ub	30	8.0	30p	ME	u13				
42	MT1132	250m	80.M	1.7m	SJ	50		5.0		1.0u	100	150m	60	†						35p	PE	u13				
43	MT1132A	250m	80.M	1.7m	SJ	60		5.0		.50u	100	150m	60	†						35p	ME	u13				
44	MT1132B	250m	80.M	1.7m	SJ	70		5.0		.01u	100	150m	60	†						35p	PL	u13				
45	MT1420	250m	80.M	1.7m	SJ	60	30	5.0		1.0u	100	150m	150	†						20p	P	u13				
46	MT1991	250m	80.M	1.7m	SJ	30		5.0		5.0u	100	150m	15	†	Δ					45p	PE	u13				
47	MT2303	250m	80.M	1.7m	SJ	50		5.0		1.0u	100	150m	75	†	Δ					45p	PE	u13				
48	MT1254	250m	100M	1.7m	SJ	30		5.0		.20u	1.00	10m	35	†					10p	ME	u13					
49	MT1255	250m	100M	1.7m	SJ	30		5.0		.20u	1.00	10m	60	†					10p	ME	u13					
50	MT1256	250m	100M	1.7m	SJ	40		5.0		.20u	1.00	10m	35	†					10p	ME	u13					
51	MT1257	250m	100M	1.7m	SJ	40		5.0		.20u	1.00	10m	60	†					10p	ME	u13					
52	MT1258	250m	100M	1.7m	SJ	30		5.0		.20u	1.00	10m	110	†					10p	ME	u13					
53	MT1259	250m	100M	1.7m	SJ	50		5.0		.20u	1.00	10m	65	†					10p	ME	u13					
54	USAF515ES045M†	250m	100MΔ	1.4m	SJ	40	25	5.0	100m	10n	100	10m	30	†	Δ		1.0u	Zb	32	Z	20	Z	8.0p	PE*	X34	
55	USAF515ES046M†	250m	100MΔ	1.4m	SJ	40	25	5.0	100m	10n	100	10	30	†	Δ		1.0u	Zb	32	Z	20	Z	8.0p	PE*	X34	
56	MT869	250m	160M	1.7m	SJ	25		5.0		.01u	5.00	10m	20	†	Δ					9.0p	PE	u13				
57	MT995	250m	160M	1.7m	SJ	20		4.0		.00u	1.00	20m	35	†	Δ					10p	PE	u13				
58	MT726	250m	180M	1.7m	SJ	25		5.0	50m		1.00	10m	15	†	Δ					5.0p	PE	u13				
59	MT2411	250m	200M	1.7m	SJ	25		5.0	100m	.01u	.50	10m	20	†	Δ					3.7p	PE	u13				
60	MT2412	250m	200M	1.7m	SJ	25		5.0	100m	.01u	.50	10m	40	†	Δ					3.7p	PE	u13				
61	HA9048	275m	25M	1.8m	SJ	25	25	5.0	100m	200n	1.00	10m	20	†			350nb	15	4.0	8.0p	ME	T05				
62	HA9049	275m	25M	1.8m	SJ	25	25	5.0	100m	200n	1.00	10m	60	†			350nb	15	4.0	8.0p	ME	T05				
63	HA9078	275m	25M	1.8m	SA	25	25	5.0		300n	1.0	10m	20	†			350nb	15	4.0	8.0p	ME	T018				
64	HA9079	275m	25M	1.8m	SA	25	25	5.0		200n	1.0	10m	60	†			350nb	15	4.0	8.0p	ME	T018				
65#	2S021	300m			SA	80		40			100	10m	25	†							A					
66#	BC261	300m		2.0m	SJ	45	45	5.0	100m	50n	5.00	2.0m	125	†	Δ*						PE	R64b	A			
67#	BC262	300m		2.0m	SJ	20	20	5.0	100m	50n	5.00	2.0m	125	†	Δ*						PE	R64b	A			
68#	BC263	300m		2.0m	SJ	20	20	5.0	100m	50n	5.00	2.0m	125	†	Δ*						PE	R64b	A			
69	NS1863	300m		1.7m	SJ	30	30	20		1.0u	6.00	1.0m	50	†	Δ						DE	T046	A			
70	NS1864	300m		1.7m	SJ	50	50	35		1.0u	6.00	1.0m	50	†	Δ						DE	T046	A			
71#	2S022	300m																								

4. SILICON PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	TYPE No.	1 MAX. COLL. DISS. @ 25°C (W)	2 DERATE IN FREE AIR W/°C (Hz)	M E A M P X P	ABS MAX RATINGS @ 25°C			MAX. lco @ MAX Vcb (A)	TYPICAL 'h' PARAMETERS						Cob (F)	DESCRIPTION STRUCTURE	DWG. No.	L C O A D E		
					BVcbo (V)	BVceo (V)	BVebo (V)		Ic (A)	BIAS			COMMON EMITTER							
										Vcb (V)	Ie (A)	hfe	hoe (mhos)	hie (Ω)					hre (X.0001)	
1#	OC7400	333m*	3.1m	\$J	15	15	15	50m	0.05	6.0	1.0m	14				RO66				
2	2N327	337m	2.5m	\$J	40	20	20	50m	0.00	6.0	1.0m	24								
3	2N328	337m	2.5m	\$J	30	20	20	50m	0.00	6.0	1.0m	24								
4	2N330	337m	5.0m	\$J	20	20	20	50m	0.00	6.0	1.0m	30								
5	2N329	337m	6.0m	\$J	20	20	20	50m	0.00	6.0	1.0m	50								
6#	BCY22	350m	500k	\$J	75	75	40	50m	20n	6.0	1.0m	10 Δ	15u	600k	3.0	TO5				
7	USAF518ES065M	350m	30MΔ	1.4m	\$J	70	70	7.0	30m	10n	5.0	1.0	155 Δ	1.0uZlb	32 Z	8.0 Z	8.0pZ	PLD	X34	
8	JAN2N1196	350m	40MΔ	2.0m	\$A	70	70	4.0	15m	250n	10	2.0m	10	300nb	20	600m	4.0pZ	ME	TO5	
9	USAF516ES047M†	350m	100MΔ	1.4m	\$J	35	20	4.0	100m	10n	10	10	30 Δ	1.0uZlb	32 Z	20 Z	8.0pZ	PLE	X34	
10	USAF516ES048M†	350m	100MΔ	1.4m	\$J	35	20	4.0	100m	10n	10	10	30 Δ	1.0uZlb	32 Z	20 Z	8.0pZ	PLE	X34	
11	PA1000	360m	100MΔ	1.4m	\$J	35	20	4.0	100m	10n	10	10	30 Δ	1.0uZlb	32 Z	20 Z	8.0pZ	PLE	X34	
12	2N995A†	360m	60MΔ	2.0m	\$J	30	25	7.0	100m	0.1u	5.0	1.0	100 †#Δ	1.0uZlb	32 Z	20 Z	8.0pZ	PL	TO18	
13	PA1001	360m	100MΔ	2.0m	\$J	20	15	4.0	100m	5.0n	1.0	20m	35 †#Δ	1.0uZlb	32 Z	20 Z	8.0pZ	PEΔ	TO18	
14	FT1746	360m	150MΔ	2.0m	\$J	60	45	7.0	100m	0.1u	5.0	1.0	50 †#Δ	1.0uZlb	32 Z	20 Z	8.0pZ	PL	TO18	
15	GME0404	360m	150MΔ	3.6m	\$J	25	25	4.0	100m	5.0n	5.0	10m	20 †Δ	1.0uZlb	32 Z	20 Z	8.0pZ	PEΔ	TO18	
16	PET0404	360m	150MΔ	3.6m	\$J	25	25	4.0	100m	5.0n	5.0	10m	20 †Δ	1.0uZlb	32 Z	20 Z	8.0pZ	PEΔ	TO18	
17	GME0404-1	360m	200MΔ	3.6m	\$J	40	30	5.0	100m	5.0n	5.0	10m	20 †Δ	1.0uZlb	32 Z	20 Z	8.0pZ	PEΔ	X45	
18	GME0404-2	360m	200MΔ	3.6m	\$J	40	30	5.0	100m	5.0n	5.0	10m	20 †Δ	1.0uZlb	32 Z	20 Z	8.0pZ	PEΔ	X45	
19#	ME5010	360m	200MΔ	2.9m	\$J	25	25	4.0	100m	10n	1.0	50m	10 †#Δ	1.0uZlb	32 Z	20 Z	8.0pZ	PETΔ	TO106	A
20	PET0404-1	360m	200MΔ	2.9m	\$J	40	30	5.0	100m	10n	1.0	50m	10 †#Δ	1.0uZlb	32 Z	20 Z	8.0pZ	PE	TO18	
21	PET0404-2	360m	200MΔ	2.9m	\$J	40	30	5.0	100m	10n	1.0	50m	10 †#Δ	1.0uZlb	32 Z	20 Z	8.0pZ	PE	TO18	
22	2N4423†	360m	400MΔ	2.8m	\$S	12	12	4.0	200m	80n	5.0	30m	40 †Δ#	1.0uZlb	32 Z	20 Z	8.0pZ	E	X55	A
23	MM2894†	360m	400MΔ	2.1m	\$J	15	12	4.5	200m	0.8u	5.0	30m	70 †#	1.0uZlb	32 Z	20 Z	8.0pZ	E	RO38w	
24	RT2459†	360m	700MΔ	2.0m	\$J	60	60	5.0	200m	1.0u	5.0	10m	100 †Δ	1.0uZlb	32 Z	20 Z	8.0pZ	PE	TO18	
25	RT2460	360m	1.0G	2.0m	\$J	40	40	5.0	200m	1.0u	5.0	1.0m	60 †Δ	1.0uZlb	32 Z	20 Z	8.0pZ	PE	TO18	
26	HA7597	385m	1.0M	2.9m	\$J	50	40	20	50m	1.0u	5.0	1.0m	14	35u	7.0k	20 Z	95p	A	X3	
27	HA7598	385m	1.0M	2.9m	\$J	50	35	20	50m	1.0u	5.0	1.0m	25	40u	7.0k	20 Z	95p	A	X3	
28	HA7599	385m	1.0M	2.9m	\$J	50	30	20	50m	1.0u	5.0	1.0m	50	50u	7.0k	20 Z	95p	A	X3	
29	2N2551	400m	150MΔ	3.3m	\$S	150	150	150	100m	100n	5.0	100m	15 †#	1.0uZlb	32 Z	20 Z	8.0pZ	A	TO5	A
30	2N3413	400m	150MΔ	3.3m	\$S	150	150	150	100m	100n	5.0	100m	15 †#	1.0uZlb	32 Z	20 Z	8.0pZ	A	TO5	A
31	CD91*	400m	2.2m	\$J	30	30	10	50m	100n	10	1.0u	100	50 †Δ							
32	CD92*	400m	2.2m	\$J	30	30	10	50m	100n	10	1.0u	100	50 †Δ							
33	CD93*	400m	2.2m	\$J	30	30	10	50m	100n	10	1.0u	100	50 †Δ							
34	CD94*	400m	2.2m	\$J	30	30	10	50m	100n	10	1.0u	100	50 †Δ							
35	CD95*	400m	2.2m	\$J	30	30	10	50m	100n	10	1.0u	100	50 †Δ							
36	CD96*	400m	2.2m	\$J	30	30	10	50m	100n	10	1.0u	100	50 †Δ							
37	CD97*	400m	2.2m	\$J	30	30	10	50m	100n	10	1.0u	100	50 †Δ							
38	CD98*	400m	2.2m	\$J	30	30	10	50m	100n	10	1.0u	100	50 †Δ							
39	CD912*	400m	2.2m	\$J	30	30	10	50m	100n	10	1.0u	100	50 †Δ							
40	CD922*	400m	2.2m	\$J	30	30	10	50m	100n	10	1.0u	100	50 †Δ							
41	CD932*	400m	2.2m	\$J	30	30	10	50m	100n	10	1.0u	100	50 †Δ							
42	CD942*	400m	2.2m	\$J	30	30	10	50m	100n	10	1.0u	100	50 †Δ							
43	CD952*	400m	2.2m	\$J	30	30	10	50m	100n	10	1.0u	100	50 †Δ							
44	CD962*	400m	2.2m	\$J	30	30	10	50m	100n	10	1.0u	100	50 †Δ							
45	CD972*	400m	2.2m	\$J	30	30	10	50m	100n	10	1.0u	100	50 †Δ							
46	CD982*	400m	2.2m	\$J	30	30	10	50m	100n	10	1.0u	100	50 †Δ							
47	HA7539	400m	3.3m	\$J	90	90	10	50m	1.0u	5.0	1.0m	14 Δ								
48	NS1861	400m	2.2m	\$J	30	30	20	100m	1.0u	6.0	1.0m	50 Δ								
49	NS1862	400m	2.2m	\$J	50	50	35	100m	1.0u	6.0	1.0m	50 Δ								
50	UC1100	400m	2.2m	\$J	45	45	6.0	30m	500n	5.0	1.0u	200 †Δ								
51	2N28710	400m	500kΔ	2.8m	\$S	60	60	60	200m#	100n	5.0	1.0m	15 †Δ	6.0pZ						
52	2N28720	400m	500kΔ	2.8m	\$S	110	110	110	200m#	100n	5.0	1.0m	15 †Δ	7.0pZ						
53	HA7535	400m	800k	2.9m	\$J	110	110	110	100n	5.0	1.0m	20	1.2ub	30	4.0	95p	Δ			
54	HA7540	400m	800k	2.9m	\$J	150	150	150	100n	5.0	1.0m	20	1.2ub	30	4.0	95p	Δ			
55	HA7541	400m	800k	2.9m	\$J	90	90	90	100n	5.0	1.0m	45	1.2ub	30	4.0	95p	A			
56	HA7542	400m	800k	2.9m	\$J	110	110	110	100n	5.0	1.0m	45	1.2ub	30	4.0	95p	A			
57	HA7543	400m	800k	2.9m	\$J	60	60	60	100n	5.0	1.0m	90	1.2ub	30	4.0	95p	A			
58	NS1002	400m	800k	2.9m	\$J	110	110	110	100m	100n	5.0	1.0m	22	1.2ub	60	16	20pZ	A†		
59	2N1232A	400m	1.0M	3.1m	\$	90	90	90	100n	5.0	1.0m	20	1.2ub	30	4.0	95p	A			
60	2N2174	400m	1.0M	2.3m	\$	45	45	45	100m	5.0	1.0m	22 †Δ	1.2ub	30	4.0	95p	A			
61	HA7534	400m	1.0M	2.9m	\$J	60	60	60	100n	5.0	1.0m	20	1.2ub	30	4.0	95p	F			
62	HA7538	400m	1.0M	2.9m	\$J	60	60	60	100n	5.0	1.0m	42	1.2ub	30	4.0	95p	F			
63	HA7630	400m	1.0M	2.9m	\$	40	40	40	5.0u	10	5.0m	22	1.5u	10	4.0	95p	A			
64	HA7631	400m	1.0M	2.9m	\$	40	40	40	2.0u	10	5.0m	22	1.5u	10	4.0	95p	A			
65	HA7632	400m	1.0M	2.9m	\$	40	40	40	5.0u	10	5.0m	60	1.5u	10	4.0	95p	A			
66	HA7633	400m	1.0M	2.9m	\$	40	40	40	2.0u	10	5.0m	60								

4. SILICON PNP - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	3] TYPE No.	1] MAX. COLL. DISS. @25°C (W)	2] DERATE IN FREE AIR W/C (Hz)	M E A M P	ABS MAX RATINGS @25°C				MAX. Icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS						Cob (F)	DESCRIPTION	L C E O D E	
					BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)		BIAS			COMMON EMITTER						
										Vcb (V)	Ie (A)	hfe	hoe (mhos)	hie (Ω)	hre (X.0001)				
1	USAF520ES070M1	438m	50MΔ	2.5m	Δ	50	40	5.5	500m	20n∅	10∅	1.0 ∅	20 †Δ		38p∅	PE	u26a		
2	USAF521ES071M1	438m	50MΔ	2.5m	Δ	35	35	4.0	500m	50n∅	10∅	1.0m∅	30 †#Δ		40p∅	PLE	u25		
3#	OC480K	480m∅	5.0M	2.4m	Δ	125	125	10	50m	2.0u	5.0∅	1.0m	15	25u	40p	A	R43		
4#	OC463K	480m∅	5.0M	2.4m	Δ	10	10		50m	2.0u	5.0∅	1.0m	30	100u	1.1k	A	R43		
5	HA7501	500m	.70M	4.0m	Δ	60				.10u∅	5.0	1.0m	8.0			F			
6	HA7506	500m	.90M	4.0m	Δ	35				.50u∅	5.0	1.0m	12			F			
7	HA7502	500m	1.0M	4.0m	Δ	60				.10u∅	5.0	1.0m	16			F			
8	HA7510	500m	1.2M	4.0m	Δ	35				.50u∅	5.0	1.0m	21			F			
9	HA7507	500m	1.6M	4.0m	Δ	20				.10u∅	5.0	1.0m	15			F			
10	TK250A	500m	100MΔ		Δ	40	20	6.0	250m	9.0∅	9.0∅	.02m∅	20			DA		T09	
11	TK251A	500m	100MΔ		Δ	40	20	6.0	250m	9.0∅	9.0∅	.02m∅	20			DA		T09	
12	ST8014	600m		345u	Δ	40	30	5.0	600m	1.0u∅	10∅	.15m∅	85			ME		T05	
13	NS1234	600m	10.M	3.4m	Δ	110	110	60	100m	1.0u	5.0	1.0m∅	14 †Δ		10p	DE		T05	
14	2N3857	600m	20MΔ	3.4m	Δ	45	45	30	500m	5.0n∅	5.0∅	1.0m∅	200 †∅	1.5u∅	35 ∅	20 ∅	∅	T05	A
15	ST8033	600m	30MΔ		Δ	40	40	2.0		1.0u	5.0∅	1.0m∅	30		45p	PL		T05	
16	ST8034	600m	40MΔ		Δ	40	40	2.0		1.0u	5.0∅	1.0m∅	60		45p	PL		T05	
17	USAF508ES020P	600m	40MΔ	14m	Δ	50	35	5.2	600m	500n∅	10∅	10m∅	20 †#Δ		45p∅	DPL		T039	∅
18	USAF508ES021P	600m	40MΔ	14m	Δ	50	35	5.2	600m	500n∅	10∅	10m∅	20 †#Δ		45p∅	DM		T039	∅
19#	SI341P†	600m	80.MΔ	4.0m	Δ	50	35	6.0		25n∅	5.0	1.5m	15 †Δ		40p	DPL		T05	
20#	SI342P†	600m	80.MΔ	4.0m	Δ	50	35	6.0		25n∅	5.0	1.5m	30 †Δ		40p	DPL		T05	
21#	SI343P†	600m	80.MΔ	4.0m	Δ	50	35	6.0		25n∅	5.0	1.5m	60 †Δ		40p	DPL		T05	
22	ST8183	600m	100MΔ	3.4m	Δ	50	35	5.0	1.0	50n∅	10∅	150m∅	20 †Δ		11p∅	PE		T05	A∅
23	ST8184	600m	100MΔ	3.4m	Δ	50	35	5.0	1.0	50n∅	10∅	150m∅	100 †Δ		11p∅	PE		T05	A∅
24	2N3224	700m	60MΔ	4.7m	Δ	100	100	6.0		100n∅	5.0∅	1.0m∅	20 †Δ		20p∅	ME		T05	
25	HA9500	750m	100MΔ		Δ	40		5.0		1.0u∅	20∅	150m∅	45 †∅		15p∅	ME		T05	
26	HA9501	750m	100MΔ		Δ	40		5.0		1.0u∅	20∅	150m∅	90 †∅		15p∅	ME		T05	
27	HA9502	750m	100MΔ		Δ	50		5.0		1.0u∅	20∅	150m∅	100 †∅		15p∅	ME		T05	
28	2N1679	800m		5.3m	Δ	100		5.0	1	30u	3.6∅	600m∅	40 †Δ		28p	ME			
29	2N1680	800m		5.3m	Δ	60		5.0	1	30u	3.6∅	600m∅	40 †Δ		28p	ME			
30	2N2216	800m	40.MΔ	4.5m	Δ	150	100	6.0	250m	.01u∅	10∅	50m∅	73 †#		15p∅	PL		T05	
31	2N2105	800m	50.MΔ	4.5m	Δ	50	35	6.0	600m	.02u∅	10∅	150m∅	33 †#		35p∅	PL		T05	
32	2N2104	800m	60.MΔ	4.5m	Δ	50	35	6.0	600m	.02u∅	10∅	150m∅	60 †#		35p∅	PL		T05	
33#	TX116-1	800m	150M		Δ	60		5.0	50m	1.0u	20∅	10m∅	60 †	b	35	3.0p	ME		
34#	TX116-2	800m	150M		Δ	60		5.0	50m	1.0u	20∅	10m∅	60 †	b	35	3.0p	ME		
35#	TX116-3	800m	150M		Δ	60		5.0	50m	1.0u	20∅	10m∅	60 †	b	35	3.0p	ME		
36	2N2391	1.0 ∅	100MΔ				20		30m		1.0∅	10m∅	30 †			PL		T050	
37	2N2392	1.0 ∅	100MΔ				20		30m		1.0∅	10m∅	60 †			PL		T050	
38	2N2303/KVT	2 ∅	96.MΔ	11m		50	35	5.0		1.0u∅	10∅	150m∅	75 †#Δ		45p∅	D		X30	
39	2N1132/KVT	3.0 ∅	96.MΔ	16m		50	35	5.0		1.0u	10∅	500u∅	30 †#Δ	1.0u∅	35 ∅	8.0p∅	45p∅	D	X30
40	HA7516	5.0 ∅	1.0M	7.1m	Δ	90		90		100n	5.0	1.0m	45	1.2ub	30	4.0	95p	A	X3
41	HA7517	5.0 ∅	1.0M	7.1m	Δ	110		110		100n	5.0	1.0m	45	1.2ub	30	4.0	95p	A	X3
42	HA7518	5.0 ∅	1.0M	7.1m	Δ	60		60		100n	5.0	1.0m	90	1.2ub	30	4.0	95p	A	X3

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	TYPE No.	MAX. COLL. DISS. @25°C (W)	DERATE IN FREE AIR W/°C	TEMP. RAMP	ABS MAX RATINGS @25°C			MAX. ic @MAX Vcb (A)	TYPICAL 'h' PARAMETERS			Cob (F)	DESCRIPTION	L C O A D E			
					Vbco (V)	BVceo (V)	BVebo (V)		BIAS						COMMON EMITTER		
									Vcb (V)	le (A)	hfe				hoe (mhos)	hie (Ω)	hre (X.0001)
1	USA55191/351	0.0m	200MΔ	4.0m	SS	25	20	15	.70	8.0m	20	1Δ					
2	10G1051		130MΔ				15	15	1.0	10m	20	1Δ	PE	X36			
3	D10B1051		130MΔ				15	15	1.0	10m	30	1Δ	PE	X36			
4	D10B1055		130MΔ				15	15	1.0	10m	20	1Δ	PE	X36			
5	D10G1051		130MΔ				15	15	1.0	10m	20	1Δ	PE	X36			
6	D10G1052		130MΔ				15	15	1.0	10m	40	1Δ	PE	X36			
7	RT698		180M		SJ	120		5.0	10	150m	40	#Δ			T05		
8	11G702		250MΔ				30		.01		30	1Δ	PE	T050			
9	11G703		250MΔ				40		.01		20	1Δ	PE	T050			
10	11G1052		250MΔ				30		.01		30	1Δ	PE	u40			
11	11G1053		250MΔ				40		.01		20	1Δ	PE	u40			
12	10B7011		300MΔ			40	15		.02		30	1Δ	PE	T050			
13	10D702		500MΔ				15		.01		20	1Δ	PE	T050			
14	10D701		600MΔ				15		.01		20	1Δ	PE	T050			
15	10E10511		600MΔ				15		.05		20	1Δ	PE	u40			
16	A1409	1.5m	125MΔ			150	6.0	25m	500n		50	1			T05		
17#	TF251	15m	50M		SJ	5.0		20m			50						
18#	TF252	15m	50M		SJ	10		20m			50						
19	ST3031	20m	70.M	115u	S	20		1.0	1.0u	6.0	1.0m	40			T05		
20	ST1543	30m			S	6.0		5.0m		3.0	5.0u	25	1		T018		
21	TMT1543	30m	20.MΔ		SJ	6.0			.01u		20u	15	1Δ		T051		
22	TMT2427	30m	50.MΔ		SJ	40			.01u		10u	20	1Δ				
23	ST3042	50m	1.0M		SS	1.0											
24	ST3043	50m	1.0M		SS	1.0											
25	2N2931	50m*	20MΔ	625u	SS	5.0	5.0	3.0	50m	.01u	.50	20m	30	Δ			
26	2N2932	50m*	20MΔ	625u	SS	5.0	5.0	3.0	50m	.01u	.50	20m	70	Δ			
27	2N2933	50m*	20MΔ	625u	SS	5.0	5.0	3.0	50m	.01u	.50	20m	45	Δ			
28	2N2934	50m*	20MΔ	625u	SS	45	30	5.0	50m	.01u	.50	20m	30	Δ			
29	2N2935	50m*	20MΔ	625u	SS	45	30	5.0	50m	.01u	.50	20m	70	Δ			
30#	BFY22	50m*	20MΔ	625u	J	5.0	5.0	3.0	50m	15n	.50	200u	30	Δ			
31#	BFY23	50m*	20MΔ	625u	J	5.0	5.0	3.0	50m	15n	.50	200u	70	Δ			
32#	BFY24	50m*	20MΔ	625u	J	5.0	5.0	3.0	50m	15n	.50	200u	100	Δ			
33#	BFY29	50m*	20MΔ	625u	J	45	30	5.0	50m	15n	.50	200u	30	Δ			
34	A151	50m	150MΔ	625u	J	20	20	4.0	50m	10n	.50	200u	140	1	15u		
35	A152	50m	150MΔ	625u	J	20	20	4.0	50m	10n	.50	200u	240	1	20u		
36	A153	50m	150MΔ	625u	J	20	20	4.0	50m	10n	.50	200u	415	1	35u		
37#	BFY23A	62m	20MΔ	625u	J	5.0	5.0	3.0	50m	15n	.50	200u	200	Δ			
38#	BFY30	62m	20MΔ	625u	J	45	30	5.0	50m	15n	.50	200u	110				
39	2N773	65mΔ	1.2m		S	20		2.0	100m		10	2.0m	11				
40	RT929H	70m	30MΔ		J	45	45	5.0		.01u	5.0	.01m	40	1Δ			
41	2N701	75m			J	30		1.0					25				
42	2N774	80mΔ		1.2m	S	20		2.0	100m		10	2.0m	20				
43	D26B11	90m		1.2m	J	40	15	4.5		40u	10	10m	4.0	Δ			
44	D26B21	90m		1.2m	J	40	15	4.5		40u	10	10m	5.0	Δ			
45	D26C1	90m		1.2m	J	18	18	5.0		25n	5.0	10m	30	1Δ#			
46	D26C2	90m		1.2m	J	18	18	5.0		25n	5.0	10m	60	1Δ#			
47	D26C3	90m		1.2m	J	18	18	5.0		25n	5.0	10m	140	1Δ#			
48	A1518	100m			J	15	3.0	3.0		.01u	5.0	10m	65	1			
49	A1519	100m			J	15	3.0	3.0		.01u	5.0	10m	100	1			
50	A1520	100m			J	15	3.0	3.0		.01u	5.0	10m	165	1			
51	A1521	100m			J	15	3.0	3.0		.01u	5.0	10m	240	1			
52	NS30000	100m			SJ	10		12	10m	10u					RQ38a		
53	NS30010	100m			SJ	10		12	10m	10u					RQ38a		
54	NS30500	100m			SJ	10		12	10m	10u					RQ38a		
55	NS30510	100m			SJ	10		12	10m	10u					RQ38a		
56	NS30520	100m			SJ	10		12	10m	10u					RQ38a		
57	NS30530	100m			SJ	10		12	10m	10u					RQ38a		
58	PMT011	100m		1.3m	SS	30	25	4.0		10u	10	10m	3.0				
59	PMT012	100m		1.3m	SS	30	25	4.0		10u	10	10m	3.5				
60	PMT013	100m		1.3m	SS	60	40	5.0		10u	10	10m	5.0				
61	PMT014	100m			SJ	60	40	5.0		1.0u	10	150m	2.5				
62	PMT015	100m		769u	SS	80	50	8.0		.50u	10	10m	5.0				
63	PMT016	100m		1.3m	SJ	25	20	5.0		.50u	3.0	10m	4.0				
64	PMT018	100m		1.3m	SS	40	30	5.0		1.0u	10	10m	4.0				
65	PMT019	100m		1.3m	SS	40	30	5.0		1.0u	10	10m	6.0				
66	PMT020	100m		769u	SS	45	30	5.0		2.0u	5.0	1.0m	37				
67	PMT024	100m		1.3m	SS	30	20	5.0		1.0u	10	150m	20	#Δ			
68	PMT111	100m		769u	SS	30	50	4.0		1.0u	10	10m	3.0				
69	PMT112	100m		769u	SS	30	25	4.0		1.0u	10	10m	3.5				
70	PMT113	100m		769u	SS	60	40	5.0		1.0u	10	10m	4.0				
71	PMT114	100m		769u	SS	60	40	5.0		1.0u	10	10m	5.0				
72	PMT116	100m		769u	SS	25	20	3.0		.50u	10	10m	4.0				
73	PMT118	100m		769u	SS	40	30	5.0		1.0u	10	10m	4.0				
74	PMT119	100m		769u	SS	40	30	5.0		1.0u	10	10m	6.0				
75	PMT120	100m		769u	SS	45	30	5.0		2.0u	10	10m	5.0				
76#	2S741	100m	2.0M	1.0m	SJ	30	30	1.0	25m	1.0u	5.0	3.0m	5.0	1Δ			
77#	2S742	100m	2.0M	1.0m	SJ	75	75	1.0	25m	1.0u	5.0	3.0m	5.0	1Δ			
78#	2S743	100m	2.0M	1.0m	SJ	115	115	1.0	25m	1.0u	5.0	3.0m	5.0	1Δ			
79#	2S744	100m	2.0M	1.0m	SJ	30	30	1.0	25m	1.0u	5.0	3.0m	20	1Δ			
80#	2S745	100m	2.0M	1.0m	SJ	75	75	1.0	25m	1.0u	5.0	3.0m	20	1Δ			
81#	2S746	100m	2.0M	1.0m	SJ	115	115	1.0	25m	1.0u	5.0	3.0m	20	1Δ			
82	RD316	100m	2.0M		S	20		1.0	20m	20u	5.0	1.0m	9.0				
83	2N1200	100m	4.3M	769u	SS	20	15	2.0	100m	.70u	10	1.5m	7.0	1Δ			
84	A1460	100m	10MΔ		SJ		15	5.0		.01u	5.0	10m	600	*1Δ			
85	2N1201	100m	12.M	769u	SS	20	15	2.0	100m	.70u	10	1.5m	7.0	1Δ			
86	JAN2N1200	100m	25MΔ	7.6m	SS	20	14	1.0		5.0u	10	2.0m	9.0	Δ			
87	JAN2N1201	100m	30MΔ	7.6m	SS	20	14	1.0		5.0u	10	2.0m	9.0	Δ			
88	10H551	100m	30MΔ	1.0m	J	45	45	5.0		10n	5.0	1.0m	60	Δ	1.0uZb		
89	10H553	100m	30MΔ	1.0m	J	45	45	5.0		10n	5.0	1.0m	150	Δ	1.0uZb		
90	10H1051	100m	30MΔ	1.0m													

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	TYPE No.	MAX. COLL. DISS. @25°C (W)	DERATE IN FREE AIR W/C (Hz)	M A M X P	ABS MAX RATINGS @25°C			MAX. I _c (A)	MAX. I _{cb} @ MAX V _{cb} (A)	TYPICAL 'h' PARAMETERS			COMMON EMITTER			Cob (F)	STRUCTURE	DESCRIPTION DWG. No.	L C O D E	
					V _{ce} (V)	V _{ceo} (V)	V _{be} (V)			V _{cb} (V)	I _e (A)	h _{fe}	h _{oe} (mhos)	h _{ie} (Ω)	h _{re} X.0001					
1	D11C551-2-3	100m	50MΔ	1.0m	#J	80	40	5.0	25n∅	10∅	10m∅	100	1#			20p∅	PE	ZA7		
2	D11C553-2-3	100m	50MΔ	1.0m	#J	80	40	7.0	25n∅	10∅	10m∅	40	1#			20p∅	PE	ZA7		
3	D11C557-2-3	100m	50MΔ	1.0m	#J	45	25	5.0	50n∅	10∅	10m∅	30	1Δ			20p∅	PE	ZA7		
4	D11C1051	100m	50MΔ	1.0m	#J	80	40	5.0	25n∅	10∅	10m∅	100	1Δ#			20p∅	PE	X36		
5	D11C1053	100m	50MΔ	1.0m	#J	80	40	7.0	25n∅	10∅	10m∅	40	1Δ#			20p∅	PE	X36		
6	D11C1057	100m	50MΔ	1.0m	#J	45	25	5.0	05u∅	10∅	10m∅	30	1Δ#			20p∅	PE	X36		
7	11B554	100m	60MΔ	1.0m	#J	80	28	7.0	02u	10∅	10m∅	40	1Δ			25p		X10		
8	11B555	100m	60MΔ	1.0m	#J	80	28	7.0	02u	10∅	10m∅	100	1Δ			25p		X10		
9	D11B554-2-3	100m	60MΔ	1.0m	#J	80	28	7.0	25u∅	10∅	10m∅	40	1Δ#			25p∅		X10		
10	D11B555-2-3	100m	60MΔ	1.0m	#J	80	28	7.0	25n∅	10∅	10m∅	100	1#			25p∅		ZA7		
11	ST3030	100m	70M	769u	#S	15		1.0	50u							3.0p	GA	TO5		
12	2N1893/TNT	100m	80MΔ	556u	#J	120	80	7.0	01u∅	10∅	150m∅	80	#†	11u	2.8k	3.5	PLA	TO5		
13	NS1500	100m	100MΔ	667u	#A	20	20	8.0		1.0∅	10m∅	75	†			6p∅	Δ	TO18		
14	NS3039∅	100m	100MΔ	6.6m	#S	20	18	18										L15a		
15	NS3040∅	100m	100MΔ	6.6m	#S	20	18	18										L15a		
16	NS3041∅	100m	100MΔ	6.6m	#S	20	18	18										L15a		
17	2N1613/TNT	100m	130M	556u	#S	75	50	7.0										u17		
18	11B1052	100m	130M					5.0	01u∅	10∅	150m∅	130	†	23.u	4.4k	7.3	PLA	u17		
19	D11B1052	100m	130M					7.0	25u∅	10∅	10m∅	40	1Δ					X36		
20	D11B1055	100m	130M					7.0	15u∅	10∅	10m∅	100	1Δ					X36		
21	2N1711/TNT	100m	160M	556u				7.0	01u∅	10∅	150m∅	130	†					u17		
22	PMT025	100m∅	180M	10m	#J	75	50	7.0	10u∅	10∅	5.0m∅	93				25p∅	ME†A	u7		
23	PMT125	100m∅	180M	1.7m	#J	75	50	7.0	10u∅	10∅	5.0m∅	93				25p∅	ME†A	u6		
24	PMT225	100m∅	180M	1.7m	#J	75	50	7.0	10u∅	10∅	5.0m∅	93				25p∅	ME†A	TO51		
25	10B553	100m	200MΔ	1.0m	#J	40	20	5.0	50u	1.0∅	10m∅	30	1Δ			6.0p		X10		
26	10B555	100m	200MΔ	1.0m	#J	25	20	3.0	50u	1.0∅	10m∅	20	1Δ			6.0p		X10		
27	10B556	100m	200MΔ	1.0m	#J	25	20	5.0	50u	1.0∅	10m∅	20	1Δ			6.0p		X10		
28	10C573	100m	200MΔ	1.0m	#J	45	45	6.0	20u	5.0∅	1.0m	38	Δ			8.0p		X10		
29	10C574	100m	200MΔ	1.0m	#J	45	45	6.0	20u	5.0∅	1.0m	76	Δ			8.0p		X10		
30	A1462†	100m	200MΔ	833u	#J	20	15	5.0	400n†	35∅	10m∅	30	1Δ				PEA	X56		
31#	BSY32†	100m	200MΔ	1.3m	#J	20	15	6.0	100m	10u	2.0∅	10m∅	32	†		4.0p	PE	u18		
32#	BSY33†	100m	200MΔ	1.3m	#J	20	15	6.0	100m	10u	2.0∅	10m∅	55	†		4.0p	PE	u18		
33#	BSY47†	100m	200MΔ	1.3m	#J	20	15	6.0	100m	10u	2.0∅	10m∅	32	†		4.0p	PE	u19		
34#	BSY48†	100m	200MΔ	1.3m	#J	20	15	6.0	100m	10u	2.0∅	10m∅	55	†		4.0p	PE	u19		
35	D10B553-2.3†	100m	200MΔ	1.0m	#J	40	15	5.0	50u∅	1.0∅	10m∅	30	1Δ#			6p∅	PE	ZA7		
36	D10B555-2.3†	100m	200MΔ	1.0m	#J	25	20	3.0	50u∅	1.0∅	10m∅	20	1Δ#			6p∅	PE	ZA7		
37	D10B556-2.3	100m	200MΔ	1.0m	#J	25	15	5.0	500n∅	1.0∅	10m∅	20	1Δ#			6.0p∅	PE	ZA7		
38	D10C573-2.3	100m	200MΔ	1.0m	#J	45	45	5.0	300n∅	5.0∅	1.0m	36	Δ	1.0u∅zb	80	10	PL	ZA7		
39	D10C574-2.3	100m	200MΔ	1.0m	#J	45	45	5.0	300n∅	5.0∅	1.0m	76	Δ	1.0u∅zb	80	10	PL	ZA7		
40	PMT1767M	100m∅	200M	7.7m	#J	25	15	5.0	50u∅	3.0∅	10m∅	5.0				3.5p	ME	u7		
41	PMT1767P	100m∅	200M	7.7m	#J	25	15	5.0	50u∅	3.0∅	10m∅	5.0				3.5p	ME	u7		
42	PMT1767T	100m∅	200M	7.7m	#J	25	15	5.0	50u∅	3.0∅	10m∅	5.0				3.5p	ME	u7		
43	PMT1767P	100m∅	200M	7.7m	#J	25	15	5.0	50u	1.0∅	10m∅	40	1Δ			5.0p	PL	u7		
44	10B551	100m	300MΔ	1.0m	#J	40	20	5.0	05u	1.0∅	10m∅	30	1Δ			6.0p		X10		
45#	BSY36†	100m	300MΔ	1.3m	#J	15	12	3.0	100m	10u	2.0∅	10m∅	34	†		3.5p	PE	u18		
46#	BSY37†	100m	300MΔ	1.3m	#J	15	12	3.0	100m	10u	2.0∅	10m∅	34	†		3.5p	PE	u18		
47#	BSY50†	100m	300MΔ	1.3m	#J	15	12	3.0	100m	10u	2.0∅	10m∅	34	†		3.5p	PE	u19		
48	D10B551-2.3	100m	300MΔ	1.0m	#J	40	15	5.0	05u∅	1.0∅	10m∅	30	1Δ#			6p∅	PE	ZA7		
49	2N706A/TNT	100m	320MΔ	556u	#J	25	15	5.0	05u∅	1.0∅	10m∅	20				6p∅	D	u17		
50	2N2218/TNT	100m	400M	556u	#J	60	30	5.0	01u∅	10∅	150m∅	80	†			4.0p	PLE	u17		
51	2N2219/TNT	100m	400M	556u	#J	60	30	5.0	01u∅	10∅	150m∅	150	†			4.0p	PLE	u17		
52	PMT021	100m∅	400M	10m	#J	20	15	5.0	220m	50u∅	10∅	10m∅	2.0	Δ		7p∅	ME	u7		
53	PMT022	100m∅	400M	10m	#J	50	20	5.0	220m	50u∅	3.0∅	10m∅	2.0	Δ		5p∅	ME	u7		
54	PMT121	100m∅	400M	1.7m	#J	20	15	5.0	220m	50u∅	10∅	10m∅	2.0	Δ		7p∅	ME	u6		
55	PMT122	100m∅	400M	1.7m	#J	50	20	5.0	220m	50u∅	3.0∅	10m∅	2.0	Δ		5p∅	ME	u6		
56	PMT222	100m∅	400M	1.7m	#J	50	20	5.0	220m	50u∅	3.0∅	10m∅	2.0	Δ		5p∅	ME	TO51		
57#	2SC286	100m	600MΔ		#J	20	12	2.0	10m	1.0u∅	6.0∅	2.0m	70			1.0p∅	PE	u23		
58#	2SC287	100m	600MΔ		#J	20	12	2.0	10m	1.0u∅	6.0∅	2.0m	70			1p∅	PE	u23	C	
59	10D556-2.3	100m	600MΔ	1.0m	#J	25	15	3.0	10u	1.0∅	3.0m∅	20	1Δ			1.7p∅	PE	ZA7		
60	PMT023†	100m	750M	10m	#J	25	20	3.0	50m	1.0∅	10m∅	20	#Δ			5.0p	ME	u7		
61	PMT216†	100m∅	750M	1.3m	#J	25	20	3.0	50m	1.0∅	10m∅	20	#Δ			5.0p	ME	TO51		
62	2N2594/TNT	100m	800MΔ	556u	#J	40	15	4.5	40u∅	1.0∅	10m	80	†			4p∅	PE	u17		
63#	2SC288	100m	850MΔ		#J	30	12	2.0	10m	1.0u∅	6.0∅	2.0m	70			1p∅	PE	u23a	C	
64	2N776	110m	1.2m	#J	#J	20	15	2.0	100m	10u	2.0∅	10m∅	11			1.5p	D	TO18		
65#	BF219	120m#	260M	2.7m	#J	40	35	4.0	20m	500n∅	7.0∅	1.0m∅	180			1.1p†	PE	TO98	B	
66#	BF220	120m#	260M	2.7m	#J	40	35	4.0	20m	500n∅	7.0∅	1.0m∅	180			1.1p†	PE	TO98	B	
67	3N26	125m			#J	30			10m								G			
68	3N27	125m			#J	30			10m								G			
69	925	125m			#J	30			10m	20u						1.8p	D			
70	926	125m			#J	30			10m	20u						1.8p	D			
71	3N32	125m	4.3M		#J	30			10m								D			
72#	10T2	125m	10M	1.1m	#J	30			25m			1.0m∅	40							
73#	11T2	125m	10M	1.1m	#J	30			25m			1.0m∅	63	†						
74#	12T2	125m	10M	1.1m	#J	30			25m			1.0m∅	100	†						
75	2N1103	125m	12MΔ	1.0m	#S	45	35	1.0	20m	1.0u∅	3.0∅	10m∅	30	1Δ	1.0u∅zb	80	20	3.0p∅	TO5	
76	3N33	125m	12M		#J	30			10m								D			
77	NS075	125m	20M	1.0m	#J	45		1.0	20m	1.0u	2.0∅	1.0m	65		200nb	40	2.0	1.2p	ME	TO5
78	ST1694	125m	20M	7.7m	#J	40	20	1.0	20m	2.0u∅	5.0∅	10m∅	40	1Δ		4p∅			TO5	
79#	2SC157	125m	25M		#J	20		1.0	20m	1.0u										

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	TYPE No.	1. MAX. COLL. DISS. @25°C		2. DERATE IN		3. ABS MAX RATINGS @25°C				MAX. I _{cb} @ MAX V _{cb} (A)	4. TYPICAL 'h' PARAMETERS							Cob (F)	DESCRIPTION STRUCTURE	DWG. No.	L E A D E
		W (W)	fab (Hz)	FREE AIR W/C	M A X P	V (V)	V (V)	V (V)	I _c (A)		BIAS		COMMON EMITTER								
											V _{cb} (V)	I _e (A)	h _{fe}	hoe (mhos)	hie (Ω)	hre (X.0001)					
1	NS060	150m	6.0m	1.0m	\$J	45		1.0	25m		5.0	1.0m	15	500nb	40	2.0	5.0p	ME			
2	JAN2N332	150m	1.0MΔ	1.2m	\$A	45		1.0			5.0	1.0m	9.0 Δ	1.2uZib	80 Z	5.0 Z	20pZ				
3#	THP81	150m	2.0M			15			25m	5.0											
4#	THP82	150m	2.0M			15			25m	5.0											
5#	THP35	150m	3.0M			30			25m	5.0											
6	J623	150m	4.0M			15			25m		5.0Z	1.0m	18					G		TO5	
7	J624	150m	4.0M			30			25m		5.0Z	1.0m	18					G		TO5	
8	J625	150m	4.0M			60			25m		5.0Z	1.0m	18					G		TO5	
9#	THP36	150m	5.0M			30			25m	5.0											
10	2N789	150m	6.0M	1.0m	\$J	45		1.0	25m	2.0uZ	5.0Z	1.0mZ	20 Z	500nb	50	2.0	5.0p	PDΔ		u2	
11	2N902	150m	6.0M	1.0m	\$J	45		1.0	25m	2.0uZ	5.0Z	1.0mZ	20 Z	500nb	50	2.0	5.0p	PD		u10	
12	2N2529	150m	6.0M	1.0m	\$J	45		2.0	25m	.05u	5.0	1.0m	18							TO18	
13	CDQ10001	150m	6.0M	1.0m	\$J	45		1.0	25m	2.0u	5.0	1.0m	200	400nb	42	4.0	7.0p	G		OV6	
14	J626	150m	6.0M			15			25m		5.0Z	1.0m	50					G		TO5	
15	J627	150m	6.0M			30			25m		5.0Z	1.0m	50					G		TO5	
16	J628	150m	6.0M			60			25m		5.0Z	1.0m	50					G		TO5	
17	J629	150m	7.0M			15			25m		5.0Z	1.0m	140					G		TO5	
18	J630	150m	7.0M			30			25m		5.0Z	1.0m	140					G		TO5	
19	J631	150m	7.0M			60			25m		5.0Z	1.0m	140					G		TO5	
20	JAN2N334	150m	8.0MΔ	1.2m	\$A	45		1.0			5.0	1.0m	19 Δ	1.2uZib	80 Z	10 Z	20pZ				
21	2N790	150m	8.0M	1.0m	\$J	45		1.0	25m	2.0uZ	5.0Z	1.0mZ	40 Z	500nb	50	3.7	5.0p	PDΔ		u2	
22	2N792	150m	8.0M	1.0m	\$J	45		1.0	25m	2.0uZ	5.0Z	1.0mZ	90 Z	500nb	50	3.7	5.0p	PDΔ		u2	
23	2N903	150m	8.0M	1.0m	\$J	45		1.0	25m	2.0uZ	5.0Z	1.0mZ	40 Z	500nb	50	3.7	5.0p	PD		u10	
24	2N905	150m	8.0M	1.0m	\$J	45		1.0	25m	2.0uZ	5.0Z	1.0mZ	90 Z	500nb	50	3.7	5.0p	PD		u10	
25	CDQ10003	150m	8.0M	1.0m	\$J	45		1.0	25m	2.0u	5.0	1.0m	29	b	25 Z		7.0p	PL		TO5	
26	NS063	150m	8.0M	1.0m	\$J	45		1.0	25m		5.0	1.0m	29	500nb	40	3.0	5.0p	ME			
27	ST1242	150m	8.0M		\$	40		2.0	25m		5.0	1.0m	30	.50u	55	3.7	10p			TO5	
28	JAN2N431	150m	10MΔ	1.2m	\$S	30	15	4.0			5.0	2.0m	30 Z	1.5uZib	90	10	25pZ			TO5	
29	JAN2N432	150m	10MΔ	1.2m	\$S	30	15	4.0			5.0	2.0m	20 Δ	1.5uZib	90	13	25pZ			TO5	
30	JAN2N433	150m	10MΔ	1.2m	\$S	30	15	4.0			5.0	2.0m	45 Δ	1.5uZib	90	13	25pZ			TO5	
31	2N2530	150m	10M	1.0m	\$J	45		2.0	25m	.05u	5.0	1.0m	30	.20u	50	2.0	3.0p			TO18	
32	2N2533	150m	10M	1.0m	\$J	45		2.0	25m	.05u	5.0	1.0m	35 †	.20u	50	2.0	3.0p			TO18	
33	CDQ10005	150m	10M	1.0m	\$J	45		1.0	25m	2.0u	5.0	1.0m	54	500nb	25 Z	3.5	7.0p	PL		TO5	
34	NS066	150m	10M	1.0m	\$J	45		1.0	25m		5.0	1.0m	54	500nb	40	3.0	5.0p	ME			
35#	THP106	150m	10M	1.0m	\$J	45		1.0	25m	2.0u	5.0	1.0m	25	.50u	50	5.0	10				
36	2N791	150m	11M	1.0m	\$J	45		1.0	25m	2.0uZ	5.0Z	1.0mZ	90 Z	500nb	50	3.7	5.0p	PDΔ		u2	
37	2N904	150m	11M	1.0m	\$J	45		1.0	25m	2.0uZ	5.0Z	1.0mZ	90 Z	500nb	50	3.7	5.0p	PD		u10	
38	NS069	150m	11M	1.0m	\$J	45		1.0	25m		5.0	1.0m	63	300nb	40	4.0	5.0p	ME			
39	2N2531	150m	12M	1.0m	\$J	45		2.0	25m	.05u	5.0	1.0m	60	.20u	50	2.0	3.0p			TO18	
40	2N783	150m	13M	1.0m	\$J	45		1.0	25m	2.0uZ	5.0Z	1.0mZ	330 Z	500nb	50	3.7	5.0p	PDΔ		u2	
41	2N906	150m	13M	1.0m	\$J	45		1.0	25m	2.0uZ	5.0Z	1.0mZ	333 Z	500nb	50	3.7	5.0p	D		u10	
42	CDQ10009	150m	13M	1.0m	\$J	45		1.0	25m	2.0u	5.0	1.0m	200	250nb	25 Z	7.0	7.0p	PL		TO5	
43	NS072	150m	13M	1.0m	\$J	45		1.0	25m		5.0	1.0m	200	250nb	40	5.0	5.0p	ME			
44	2N2532	150m	16M	1.0m	\$J	45		2.0	25m	.05u	5.0	1.0m	150	.20u	50	2.0	3.0p			TO18	
45	2N1528	150m	20M	1.0m	\$J	25	25 ∅	2.0	20m	1.0uZ	6.0	1.0m	4.0 Δ					PD†		TO5	
46	2N2534	150m	20MΔ	1.0m	\$S	45	40	2.0	25m	5.0nZ	2.0Z	1.0mZ	100	1.0uZib	80 Z	7.5 Z	3.0pZ	GD†		TO18	
47	NS6210∅	150m	20MΔ	1.1m	\$A	30	15	15			5.0Z	1.0mZ	50 †Δ				12pZ			X16	
48	ST1243	150m	20M		\$	40		2.0	25m		5.0	1.0m	30 †	200n	30	2.0	2.0p			TO5	
49	ST1244	150m	20M		\$	40		2.0	25m		5.0	1.0m	80 †	200n	30	2.0	2.0p			TO5	
50	ST1290	150m	20M		\$	20		2.0	25m		5.0	1.0m	180 †	.20u	30	2.0	2.0p			TO5	
51	4JD4A2	150m	25M		\$			1.0	20m	15uZ							14				
52	4JD4A3	150m	25M		\$			1.0	20m	15uZ							14				
53	4JD4A4	150m	25M		\$			1.0	20m	15uZ							14				
54	4JD4A5	150m	25M		\$			1.0	20m	15uZ							14				
55#	ST25A	150m	25M		\$J	45			15m	20uZ	9.0Z	1.0mZ	15	600nb	45	4.0	3.0p				
56#	ST25B	150m	25M		\$J	45			15m	20uZ	9.0Z	1.0mZ	32	600nb	45	4.0	3.0p				
57#	ST25C	150m	25M		\$J	45			15m	20uZ	9.0Z	1.0mZ	68	600nb	45	4.0	3.0p				
58	2N745†	150m	30M	1.0m	\$J	45	30	1.0	20m	1.0uZ	2.0	1.0m	55	100nb	47	1.8	1.4p	PD		u2	
59	2N907†	150m	30M	1.3m	\$J	45		1.0	20m	.50u	5.0Z	1.0mZ	35 †	100nb	47	1.8	1.4p	PD		u10	
60	2N930/TPT	150m	30MΔ	1.3m	\$J	45	45	5.0	30m	1.0n	5.0Z	1.0mZ	150 Δ	1.0uZib	32 Z	6.0 Z	8.0pZ	PL∅		X31	
61	2N930A/51	150m	30MΔ	1.3m	\$J	45	45	5.0	30m	2.0nZ	5.0Z	1.0mZ	150	1.0u	28	6.0	4.0p	PL∅		TO51	
62	TMT839	150m	30M	1.0m	\$J	45	45	2.0	20m	1.0u	5.0Z	1.0mZ	35	350nb	40	2.0	8.0p	ME†		u5	
63	TMT840	150m	30M	1.0m	\$J	45	45	2.0	20m	1.0u	5.0Z	1.0mZ	70	350nb	40	2.0	8.0p	ME†		u5	
64	TMT842	150m	30M	1.0m	\$J	45	45	2.0	20m	1.0u	5.0Z	1.0mZ	40 †	350nb	40	2.0	8.0p	MEΔ		u5	
65	2N841/51	150m	40M	833u	\$J	45	45	2.0	50m	1.0u	5.0Z	1.0mZ	140	350nb	40	2.0	8.0p	ME†		TO51	
66	2N841/TPT	150m	40M	833u	\$J	45	45	2.0	50m	1.0u	5.0Z	1.0mZ	140	350nb	40	2.0	8.0p	ME†		X31	
67	LDA408	150m	40M	1.0m	\$A	40	30	4.0	25m	5.0n	1.0Z	4.0m	60 †					PL		TO72	
68	TMT841	150m	40M	1.0m	\$J	45	45	2.0	20m	1.0u	5.0Z	1.0mZ	140	350nb	40	2.0	8.0p	ME†		u5	
69	TMT843	150m	40M	1.0m	\$J	45	45	2.0	20m	1.0u	5.0Z	1.0mZ	100 †	350nb	40	2.0	8.0p	MEΔ		u5	
70	2N746	150m	45M	1.0m	\$J	45	30	1.0	20m	1.0uZ	2.0	1.0m	99	100nb	47	1.8	1.4p	PDΔ		u2	
71	2N908†	150m	45M	1.3m	\$J	45		1.0	20m	.50u	5.0Z	1.0mZ	75 †	100nb	47	1.8	1.4p	PD		u2	
72	2N747†	150m	60M	1.0m	\$J	25	25 ∅	3.0	50m	1.0uZ	5.0Z	1.0mZ	45 †					PD		u2	
73	JAN2N1199A	150m	75MΔ	1.2m	\$S	20	15	3.0			5.0	1.0m	12 †Δ				2.5pZ			R49	
74	2N1893/51	150m	80MΔ	833u	\$J	120	80	7.0			.01uZ	10Z	150mZ	80 †#	11u	2.8k	3.5	15pZ	PLA		TO51
75	2N1893/TPT	150m	80MΔ	833u	\$J	120	80	7.0			.01uZ	10Z	150mZ	80 †#	11u	2.8k	3.5	15pZ	PLA		X31
76	TMT696	150m	80M	833u	\$J	60	40	5.0	200m#	1.0uZ	10	150m	40					ME		TO51	
77#	2SC267A	150m	90M																		

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	TYPE No.	1] MAX. COLL. DISS. @25°C (W)	2] fab (Hz)	3] DERATE IN FREE AIR W/C	T M A M X P	ABS MAX RATINGS @25°C				MAX. I _{cb} @MAX V _{cb} (A)	TYPICAL 'h' PARAMETERS						Cob (F)	DESCRIPTION	L C O A D E		
						V _{bcbo} (V)	V _{bcvo} (V)	V _{bebo} (V)	I _c (A)		BIAS			COMMON EMITTER							
											V _{cb} (V)	I _e (A)	h _{fe}	hoe (mhos)	hie (Ω)	hre (X.0001)					
1	2N709/TPT	150m	800M	833u	15	6.0	4.0	500m	.05u	5.0	10m	55	†				PL	X31			
2	2N2369/TPT	150m	800M	833u	15	6.0	4.0	500m	.40u	1.0	10m	80	†			3p	PE	X31			
3	2N2594/TPT	150m	800M	833u	15	6.0	4.0	500m	.40u	1.0	10m	80	†			4p	PE	X31			
4	2N2784/TPT	150m	1.0G	833u	15	6.0	4.0	500m	5n	.50	10m	120	†			3p	PE	X31			
5	2N3633/51	150m	1.3G	833u	15	6.0	4.0	50m	5n	.50	10m	150	†			2.5p	PE	T051			
6	2N3633/TPT	150m	1.3G	833u	15	6.0	4.0	50m	5n	.50	10m	150	†			2.5p	PE	X31			
7	K5011	150m	1.5G	1.1m	25	12	25	50m	50n	1.0	3.0m	100	†			80f	D	T050			
8	K5010	150m	1.7G	1.1m	25	12	25	50m	50n	1.0	3.0m	100	†			80f	D	T050			
9#	V327	150m	3.2G	1.2m	20	12	3.0	50m	50n	1.0	3.0m	90	†			90p	PE	u23a			
10#	BF115†	160m	270M	1.0m	50	30	5.0	30m	.50	1.0	1.0m	165	†				E	T072			
11#	BF189	160m	300M	1.0m	50	30	5.0	25m									E	T072			
12#	BF187	160m	500M		40			25m									PE	T072			
13	2N778	170m	1.2m	1.2m	20			100m		1.0	2.0m	50				1.5p	D	T018			
14#	FK2484	175m	60M	1.0m	60	60	6.0	50m	10n	5.0	1.0m	450	†			6.0p	PL	u17b			
15#	FV2484	175m	60M	1.0m	60	60	6.0	50m	10n	5.0	1.0m	450	†			6.0p	DPL	u5b			
16#	FK3299†	175m	200M	1.0m	60	30	5.0		10n	1.0	150m	75	†			8.0p	DPE	u17b			
17#	FV3299†	175m	200M	1.0m	60	30	5.0		10n	1.0	150m	75	†			8.0p	DPE	u5b			
18#	FK3300†	175m	250M	1.0m	60	30	5.0		10n	1.0	150m	220	†			8.0p	DPE	u17b			
19#	FV3300†	175m	250M	1.0m	60	30	5.0		10n	1.0	150m	220	†			8.0p	DPE	u5b			
20#	FK914†	175m	300M	1.0m	40	15	5.0		25n	1.0	10m	55	†			6.0p	DPE	u17b			
21#	FK3014†	175m	300M	1.0m	40	20	5.0		30n	1.0	30m	60	†			5.0p	DPE	u17b			
22#	FV914†	175m	300M	1.0m	40	15	5.0		25n	1.0	10m	55	†			6.0p	DPE	u5b			
23#	FV3014†	175m	300M	1.0m	40	20	5.0		30n	1.0	30m	60	†			5.0p	DPE	u5b			
24#	FK2369A†	175m	500M	1.0m	40	15	4.5	100m	40n	1.0	30m	71	†			4.0p	DPE	u17b			
25#	FV2369A†	175m	500M	1.0m	40	15	4.5	100m	40n	1.0	30m	71	†			4.0p	DPE	u5b			
26#	FK918	175m	600M	1.0m	30	15	3.0	50m	10n	1.0	3.0m	50	†			2.0p	DPE	u17b			
27#	FV918	175m	600M	1.0m	30	15	3.0	50m	10n	1.0	3.0m	50	†			2.0p	DPE	u5b			
28	40350	180m			35												P	R92			
29	40351	180m			35												P	R92a			
30	40352	180m			35												P	R92a			
31	BC167	180m*	300M	2.2m	45	6.0	100m	.02u	5.0	2.0m	330					30u	4.5k	2.0	PE	T092	
32	BC168	180m*	300M	2.2m	20	5.0	100m	.02u	5.0	2.0m	330					30u	4.5k	2.0	PE	T092	
33	BC169	180m*	300M	2.2m	20	5.0	100m	.02u	5.0	2.0m	330					30u	4.5k	2.0	PE	T092	
34	40470	180m	700M	1.1m	45	3.0	50m	1.0u	6.0	1.0m	170	†				180f				T0104	
35	40471	180m	700M	1.1m	45	3.0	50m	1.0u	6.0	1.0m	100	†				180f				T0104	
36	40469	180m	800M	1.1m	45	3.0	50m	1.0u	6.0	1.0m	170	†				190f				T0104	
37	2N847†	200m		7.7m	40	25	10	50m	.10u												
38	2N848†	200m		7.7m	20	15	6.0	50m	.10u												
39	2N1082	200m		1.5m	25	25	∅	50m		5.0	10m	10	Δ								
40	JAN2N1082	200m		1.4m	25	25	2.0	50m	50n	5.0	10m	10	Δ			5.0p				T05	
41	2N4086	200m		2.6m	12	12	5.0	100m	.10u	1.0	2.0m	450	†			5.0p				T098	
42	2N4087	200m		2.6m	12	12	5.0	100m	.10u	1.0	2.0m	750	†			12p				T098	
43	2N4087A	200m		2.6m	12	12	5.0	100m	.10u	1.0	2.0m	250	†			12p				T098	
44	4JX16A667	200m		2.6m	18	18	5.0	100m	.50u	1.0	2.0m	55	*Δ								
45	4JX16A667/G	200m		2.6m	18	18	5.0	100m	.50u	1.0	2.0m	235	Δ								
46	4JX16A667/O	200m		2.6m	18	18	5.0	100m	.50u	1.0	2.0m	90	Δ								
47	4JX16A667/R	200m		2.6m	18	18	5.0	100m	.50u	1.0	2.0m	55	Δ								
48	4JX16A667/Y	200m		2.6m	18	18	5.0	100m	.50u	1.0	2.0m	150	Δ								
49	4JX16A668	200m		2.6m	18	18	5.0	100m	.50u	1.0	2.0m	90	*Δ								
50	4JX16A668/G	200m		2.6m	18	18	5.0	100m	.50u	1.0	2.0m	235	Δ								
51	4JX16A668/O	200m		2.6m	18	18	5.0	100m	.50u	1.0	2.0m	90	Δ								
52	4JX16A668/Y	200m		2.6m	18	18	5.0	100m	.50u	1.0	2.0m	150	Δ								
53	4JX16A669	200m		2.6m	18	18	5.0	100m	.50u	1.0	2.0m	150	*Δ								
54	4JX16A669/G	200m		2.6m	18	18	5.0	100m	.50u	1.0	2.0m	235	Δ								
55	4JX16A669/Y	200m		2.6m	18	18	5.0	100m	.50u	1.0	2.0m	150	Δ								
56	4JX16B670/G	200m		2.6m	18	18	5.0	200m	.50u	4.5	2.0m	180	†								
57	4JX16B670/R	200m		2.6m	18	18	5.0	200m	.50u	4.5	2.0m	30	†								
58	4JX16B670/Y	200m		2.6m	18	18	5.0	200m	.50u	4.5	2.0m	75	†								
59#	BCY50	200m			10	3.0	200m		5n	1.5	10m	60	†								
60	CDQ10035	200m			15	2.0			500n	6.0	1.0m	45				400nb	25	5.0	5.0p	20p	T05
61	CDQ10036	200m			30	2.0			500n	6.0	1.0m	45				400nb	25	5.0	20p		T05
62	SA2254∅	200m			60	30			.01u	5.0	1.0m	45	†								
63	V120RH	200m		1.0m	20	10	4.0		.40n	5.0	1.0m	14	†								
64	2N478A	200m	11M	1.1m	15						1.0m	60									
65	ST15	200m	11M	909u	15		2.0		20n	6.0	1.0m	50				60nb	65	5.0	7.0p		
66	ST35	200m	11M	909u	30		2.0		50n	6.0	1.0m	50				60nb	65	5.0	7.0p		
67	ST45	200m	11M	909u	45		2.0		20n	6.0	1.0m	50				60nb	65	5.0	7.0p		
68	2N541A	200m	15M	1.1m	15						1.0m	130									
69	2N476A	200m	17M		15						1.0m	45									
70	2N477A	200m	17M	1.1m	30						1.0m	45									
71	2N2161†	200m	20M	1.5m	55	35	3.0	50m	10n	20	1.0m	75	Δ			1.0ub	55	20	3.0p		T05
72#	2SC166†	200m	20M	1.6m	55					12	3.0m	105	†								
73#	2SC167†	200m	20M	1.6m	55					12	3.0m	105	†								
74	2N751	200m	30M	1.3m	20	20	2.0	50m	.80u	6.0	1.0m	2.2	Δ			170u	400				
75	CDQ10016	200m	30M	1.1m	15	2.0			500n	6.0	1.0m	16				400nb	25	2.1	7.0p		T05
76	CDQ10017	200m	30M	1.1m	30	2.0			500n	6.0	1.0m	16				400nb	25	2.1	20p		T05
77	CDQ10018	200m	30M	1.1m	45	2.0			500n	6.0	1.0m	16				400nb	25	2.1	20p		T05
78	CDQ10019	200m	30M	1.1m	15	2.0			500n	6.0	1.0m	30				400nb	25	2.2	20p		T05
79	CDQ10020	200m	30M	1.1m	30	2.0			500n	6.0	1.0m	30				400nb	25	2.2	20p		T05
80	CDQ10021	200m	30M	1.1m	45	2.0			500n	6.0	1.0m	30				400nb	25	2.2	20p		T05
81	CDQ10022	200m	30M	1.1m	15	2.0			500n	6.0	1.0m	60				b	25	3.0	20p		T05
82	CDQ10023	200m	39M	1.1m	30	2.0			500n	6.0	1.0m										

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 DERATE IN FREE AIR W/°C (Hz)	T M E A M X P	ABS MAX RATINGS @25°C				MAX. lcb0 @MAX Vcb (A)	TYPICAL 'h' PARAMETERS			COMMON EMITTER			Cob (F)	DESCRIPTION STRUC-TURE	L C E O D E		
					BVcbo (V)	BVceo (V)	BVebo (V)	lc (A)		Vcb (V)	le (A)	hfe	hoe (mhos)	hie (Ω)	hre (X.0001)					
1	D18E9	200m	135M\$	2.7m	#J	25	25	5.0	100m	100n	4.50	2.0m	235	1Δ	2.5p	PL	T098			
2	D24A3392	200m	140M\$	2.7m	#J	25	25	5.0	100m	100n	4.50	2.0m	150	1Δ	7.0p	PL	X54			
3	D24A3393	200m	140M\$	2.7m	#J	25	25	5.0	100m	100n	4.50	2.0m	90	1Δ	7.0p	PL	X54			
4	D24A3394	200m	140M\$	2.7m	#J	25	25	5.0	100m	100n	4.50	2.0m	55	1Δ	7.0p	PL	X54			
5#	2SC361	200m	150M\$	2.0m	#J	25	18	5.0	40m	50u0	6.00	2.0m	80	1Δ	6p	PL	R067			
6#	2SC362	200m	150M\$	2.0m	#J	25	18	5.0	40m	50u0	6.00	2.0m	140	1Δ	6p	PL	R067			
7#	2SC363	200m	150M\$	2.0m	#J	25	18	5.0	40m	50u0	6.00	2.0m	250	1Δ	6p	PL	R067			
8#	2SC376	200m	150M\$	2.0m	#J	70	70	5.0	100m	1.0u0	6.00	1.0m	60	1Δ	2.5p	PE	R067a			
9#	BC150	200m	160M\$	2.7m	#J	18	18	5.0	100m	200n	100	100u0	350	1Δ	2.5p	PL	T098			
10#	BC151	200m	160M\$	2.7m	#J	25	25	5.0	100m	200n	100	1.0m	180	1Δ	12p	PL	T098			
11	D24A3900	200m	160M\$	2.7m	#J	18	18	5.0	100m	100n	4.50	2.0m	250	1Δ	7.0p	PL	X54			
12	D24A3900A	200m	160M\$	2.7m	#J	18	18	5.0	100m	100n	4.50	2.0m	250	1Δ	7.0p	PL	X54			
13	4JX16A567	200m	200M\$	2.6m	#J	18	18	5.0	100m	500n	1.00	1.0m	400	1Δ	9.0p	PE	T098			
14#	BF216	200m	200M\$	2.7m	#J	40	35	4.0	20m	500n	7.00	1.0m	100	1Δ	1.1pt	PE	R038			
15	T2857	200m	200M\$	1.1m	#J	30	20	5.0	20m	100u0	100	1.0m	15	1Δ	1.1pt	PE	R038			
16#	BF218	200m	220M\$	2.7m	#J	40	35	4.0	20m	500n	7.00	1.0m	100	1Δ	1.1pt	PE	T098			
17#	AT310	200m	230M\$	1.4m	#J	45	30	5.0	30m	500n	120	2.0m	40	1#Δ	3.5p	PL	T01			
18#	AT311	200m	230M\$	1.4m	#J	45	30	5.0	30m	500n	120	2.0m	40	1#Δ	3.5p	PL	T01			
19#	AT312	200m	230M\$	1.4m	#J	45	30	5.0	30m	500n	120	2.0m	100	1#Δ	3.5p	PL	T01			
20#	AT313	200m	230M\$	1.4m	#J	35	20	5.0	30m	500n	120	2.0m	20	1#Δ	3.5p	PL	T01			
21#	AT314	200m	230M\$	1.4m	#J	35	20	5.0	30m	500n	120	2.0m	40	1#Δ	3.5p	PL	T01			
22#	AT315	200m	230M\$	1.4m	#J	35	20	5.0	30m	500n	120	2.0m	40	1#Δ	3.5p	PL	T01			
23#	AT316	200m	230M\$	1.4m	#J	35	20	5.0	30m	500n	120	2.0m	100	1#Δ	3.5p	PL	T01			
24#	BF217	200m	240M\$	2.7m	#J	40	35	4.0	20m	500n	7.00	1.0m	100	1Δ	1.1pt	PE	T098			
25	2N2954	200m	300M\$Δ	1.1m	#J	30	20	3.0	500m	.05u0	100	2.0m	25	Δ	3.8	PE	R038			
26	2N3407	200m	300M\$Δ	1.3m	#S	35	18	3.0	100m	.20u0	100	10m	10	Δ	2.5p	PE	T092			
27	2N3985	200m	300M\$Δ	2.0m	#S	30	12	3.0	30m	1.0u0	100	4.0m	20	1Δ	3p	PE	R038			
28	NS9728	200m	300M\$Δ	1.3m	#A	30	15	4.0	4.0	.01u0	1.00	3.0m	60	1	8p	PE	R038			
29	NS9729	200m	300M\$Δ	1.3m	#A	20	10	4.0	4.0	.01u0	1.00	3.0m	60	1	8p	PE	R038			
30	NS9730	200m	300M\$Δ	1.3m	#A	15	10	4.0	4.0	.01u0	1.00	3.0m	60	1	8p	PE	R038			
31	NS9731	200m	300M\$Δ	1.3m	#A	10	5.0	4.0	4.0	.01u0	1.00	3.0m	60	1	8p	PE	R038			
32	18J11	200m	350M\$	2.6m	#J	18	14	5.0	200m	.50u0	1.00	10m	30	1Δ	6p	PE	R067			
33	18J21	200m	350M\$	2.6m	#J	18	14	5.0	200m	.50u0	1.00	10m	30	1Δ	6p	PE	R067			
34	18K3	200m	380M\$	2.6m	#J	30	30	4.0	25m	.50u0	9.50	5.0m	30	1Δ	1.5p	PL	T098			
35	2N3984	200m	400M\$Δ	2.0m	#S	30	12	3.0	30m	1.0u0	100	4.0m	20	1Δ	2p	PE	T092			
36#	BSW781	200m	400M\$Δ	2.0m	#J	40	15	4.5	200m	400n	1.00	10m	20	1#Δ	4.0p	PE	X64			
37	u7003	200m	450M\$Δ	1.3m	#S	15	6.0	4.0	4.0	10u0	5.00	10m	70	1	3p	PE	T051			
38	2N3983	200m	500M\$Δ	2.0m	#S	30	12	3.0	30m	1.0u0	100	4.0m	30	1Δ	2p	PE	T092			
39#	BSW801	200m	500M\$Δ	2.0m	#J	40	15	4.5	200m	300n	1.00	10m	40	1#Δ	4.0p	PE	X64			
40	D1866	200m	500M\$	2.7m	#J	30	12	3.0	25m	500n	100	5.0m	20	1Δ	1.2p	PE	T098			
41	D1866	200m	500M\$	2.6m	#J	30	12	3.0	25m	500n	100	5.0m	20	1Δ	1.5p	PE	T098			
42	TIXS29	200m	500M\$Δ	2.0m	#S	40	40	4.0	30m	1.0u0	100	4.0m	30	1Δ	1.5p	PL	X20			
43	TIXS30	200m	500M\$Δ	2.0m	#S	40	40	4.0	30m	1.0u0	100	4.0m	30	1Δ	1.5p	PL	X20			
44	TIXS31	200m	500M\$Δ	2.0m	#S	40	40	4.0	30m	1.0u0	100	4.0m	30	1Δ	1.5p	PL	X20			
45	ST2130	200m	550M\$Δ	1.1m	#J	25	12	2.0	2.0	500n	1.00	3.0m	20	1Δ	2.0p	PE	T072			
46	D18K4	200m	580M\$	2.6m	#J	30	30	4.0	25m	500n	9.50	5.0m	110	1	1.8p	PL	T098			
47	18K1	200m	585M\$	2.6m	#J	30	30	4.0	25m	.50u0	9.50	5.0m	30	1Δ	1.5p	PL	T098			
48	18K2	200m	585M\$	2.6m	#J	30	30	4.0	25m	.50u0	9.50	5.0m	30	1Δ	1.5p	PL	T098			
49	2N4081	200m	600M\$Δ	1.1m	#S	40	40	3.0	3.0	20n	100	2.0m	40	1Δ	300f	PE	T0104			
50	2N4397	200m	600M\$Δ	1.1m	#S	40	40	3.0	3.0	20n	100	2.0m	40	1Δ	300f	PE	T0104			
51#	BF188	200m	600M\$	1.3m	#J	50	50	5.0	50m	.01u0	200	10m	25	1Δ	1.7p	PE	T072			
52	T1410	200m	600M\$	2.0m	#J	25	13	3.0	30m	.50u0	120	10m	20	1Δ	1.7p	PE	X20			
53#	ZT918	200m	600M\$Δ	1.1m	#S	30	15	3.0	3.0	30m	1.00	4.0m	30	1Δ	1.7p	PE	R038			
54	TIXS28	200m	630M\$Δ	2.0m	#S	40	40	4.0	30m	1.0u0	100	4.0m	30	1Δ	1.7p	PE	X20			
55	D18K1	200m	650M\$	2.6m	#J	30	30	4.0	25m	500n	4.50	4.0m	60	1	1.4p	PL	T098			
56	D18K2	200m	650M\$	2.6m	#J	30	30	4.0	25m	500n	4.50	4.0m	60	1	1.4p	PL	T098			
57	D18K3	200m	650M\$	2.6m	#J	30	30	4.0	25m	500n	4.50	4.0m	60	1	1.4p	PL	T098			
58	S5328E	200m	900M\$	1.1m	#J	30	15	2.0	2.0	10u0	5.00	8.0m	20	1Δ	1.2p	PE	R038			
59	ST2110	200m	950M\$Δ	1.1m	#J	25	12	2.0	2.0	500n	5.00	3.0m	20	1Δ	2.0p	PE	T018			
60	TC0918	200m	960M\$Δ	1.1m	#J	30	15	3.0	3.0	.01u0	3.00	30m	20	1Δ	1.7p	PE	A0			
61	2N2808	200m	1.0G*	1.1m	#J	30	10	3.0	25m	.01u0	1.00	2.0m	20	1Δ	7p	PE	R038			
62	2N2809	200m	1.0G*Δ	1.1m	#J	30	15	3.0	25m	.01u0	6.00	2.0m	20	1Δ	7p	PE	R038			
63	2N2810	200m	1.0G*Δ	1.1m	#J	24	10	3.0	25m	.01u0	6.00	2.0m	20	1Δ	7p	PE	R038			
64	A489	200m	1.0G\$	1.1m	J	28	15	2.5	20m	5.0n	1.00	3.0m	20	1Δ	1.7p	PE	T072			
65	ST2120	200m	1.0G\$Δ	1.1m	#J	30	15	4.0	4.0	5.0n	1.00	3.0m	50	1Δ	1.7p	PE	T072			
66	2N2809A	200m	1.3G*Δ	1.1m	#J	30	15	3.0	25m	.01u0	6.00	2.0m	20	1Δ	7p	PE	R038			
67	2N2810A	200m	1.3G*Δ	1.1m	#J	24	10	3.0	25m	.01u0	6.00	2.0m	20	1Δ	7p	PE	R038			
68	2N2808A	200m	1.5G*Δ	1.1m	#J	30	10	3.0	25m	.01u0	6.00	2.0m	20	1Δ	7p	PE	R038			
69	TIX09	200m	1.5G\$	1.1m	#S	30	15	3.0	50m	.01u0	6.00	5.0m	20	1Δ	1.7p	PE	u26			
70	TIX10	200m	1.5G\$	1.1m	#S	25	13	3.0	50m	.01u0	6.00	5.0m	20	1Δ	1.7p	PE	u26			
71	TIXS09	200m	1.5G\$	1.0m	#S	30	15	3.0	50m	10n	6.00	5.0m	20	1Δ	1.5p	PE	u26			
72	T13016	200m	1.7G\$	1.1m	#J	30	15	3.0	30m	.01u0	6.00	5.0m	20	1Δ	1.7p	PE	T050			
73	TIX3016	200m	1.7G\$	1.1m	#J	30	15	3.0	50m	.01u0	6.00	5.0m	20	1Δ	1.7p	PE	u26a			
74	TIX3016A	200m	1.7G\$	1.1m	#J	30	15	3.0	30m	10n	6.00	5.0m	20	1Δ	1.7p	PE	u26			
75#	V415	200m	3.0G\$	1.6m	#J	28	15	3.0	60m	.50u0	6.00	5.0m	20	1Δ	50p	PE	X63			
76	A747C	220m	600K\$	2.0m	#J	50	50	5.0	100m	5.00	2.0m	600	140	1	2.5p	PE	MM10			
77	A757	220m	130M	2.0m	#J	50	45	5.0	200m	5.00	2.0m	100	10	1Δ	1.5u	PE	MM10			
78#	BC429	225m	50M	2.2m	#J	60	60	3.0	50m	1.0u0	6.00	1.0m	10	1Δ	30u	1.0k	3.0	45p	PE	T05
79#	A472	230m	550M\$	1.5m	#J	40	35	4.0	25m	u0	7.00	10m	150	1	7p	PE	T072			
80	2N959	250m			#J	25	15	5.0	5.0	.50u0	10									

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 DERATE IN FREE AIR W/°C (Hz)	T M A M X P	ABS MAX RATINGS @25°C					MAX. lcbv @ MAX Vcb (A)	TYPICAL 'h' PARAMETERS				Cob (F)	DESCRIPTION		L C O A D E			
					BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	BIAS			COMMON EMITTER				STRUC-TURE	DWG. No.				
									Vcb (V)		Ie (A)	hfe	hoe (mhos)	hie (Ω)					hre (X.0001)		
1#	ST723	250m	28M	2.0m	5J	45			25m	10n	6.0	1.0m	50	400nb	50	5.0	5.5p	D1Δ	R3		
2#	2SC193	250m	30M		5J	60			25m	2.0	2.0	1.0m	21	.15u	60	1.2	3.0p	G	T05		
3#	2SC196	250m	30M		5J	30			10m	1.0	2.0	1.0m	21	.15u	60	1.2	3.0p	G	T05		
4	CS929	250m	30MΔ		5J	45	45	5.0	30m	10u	5.0	1.0m	60 Δ	1.0nb	32	6.0	8.0p	PL	R97a		
5	CS930	250m	30MΔ		5J	45	45	5.0	30m	10u	5.0	1.0m	150 Δ	1.0uZb	32	6.0	8.0p	PL	R97a		
6	USAF518ES066M	250m	30MΔ	1.4m	5J		70	7.0	30m	10n	5.0	1.0m	155 Δ	1.0uZb	32	8.0	8.0p	DPL*	TO89		
7	USAF519ES067M	250m	30MΔ	1.4m	5J		70	4.5	7.0	30m	10n	5.0	1.0m	155 Δ	1.0uZb	32	8.0	8.0p	DPL*	X34	
8	USAF519ES068M	250m	30MΔ	1.4m	5J		70	4.5	7.0	30m	10n	5.0	1.0m	155 Δ	1.0uZb	32	8.0	8.0p	DPL*	X34	
9	2N2673	250m	40M	1.6m	5S	60	45	3.0	25m	100n	5.0	1.0m	8.0 Δ	1.0uZb	60	7.5	4.0p	DPL*	TO46		
10	2N2674	250m	40M	1.6m	5S	60	45	3.0	25m	100n	5.0	1.0m	12 Δ	1.0uZb	60	7.5	4.0p	DPL*	TO46		
11	2N2675	250m	40M	1.6m	5S	60	45	3.0	25m	100n	5.0	1.0m	22 Δ	1.0uZb	60	7.5	4.0p	DPL*	TO46		
12	2N2676	250m	40M	1.6m	5S	60	45	3.0	25m	100n	5.0	1.0m	45 Δ	1.0uZb	60	7.5	4.0p	DPL*	TO46		
13	GME4001	250m	40MΔ	2.0m	5J	30	25	8.0		.05u	1.0	1.0m	60 Δ				3pZ	DPL	X45		
14	2N2677	250m	50M	1.8m	5J	45	35	5.0	25m	100n	5.0	1.0m	20 Δ	1.0uZb	60	7.5	3.0p	DPL*	TO46		
15	2SC18	250m	50M	1.7m	5J	20	20	2.0	30m	1.0u	6.0	1.0m	12 †			6.0p	PL	TO18			
16#	2SC191	250m	50M		5J	60		1.0	10m	2.0u	2.0	1.0m	21	.15u	60	1.2	3.0p	G	T05		
17#	2SC194	250m	50M		5J	60		1.0	10m	2.0u	2.0	1.0m	21	.15u	60	1.2	3.0p	G	T05		
18#	2SC197	250m	50M		5J	60		1.0	10m	1.0u	2.0	1.0m	21	.15u	60	1.2	3.0p	G	T05		
19#	BCY511	250m	50MΔ	1.6m	5J	30	20	5.0	100m	5.0n	1.5	100n	80 Δ	10u	4.2k	25		PL	TO18		
20#	BFY511	250m	50MΔ	1.7m	5J	30	20	5.0	100m	.05u	1.5	1.0m	80 Δ	10u	4.2k	25		PL	TO18		
21#	BCY501	250m	60MΔ	1.6m	5J	10	5.0	3.0	100m	5.0n	1.5	100n	60 Δ	10u	4.2k	25		PL	TO18		
22#	BFY501	250m	60MΔ	1.6m	5J	10	5.0	3.0	100m	5.0n	1.5	100n	60 Δ	10u	4.2k	25		PL	TO18		
23	CS2483	250m	80MΔ		5J	60	60	6.0	50m	.01u	5.0	.01m	40 Δ				3pZ	PE	R97a		
24	GME4002	250m	80MΔ	2.0m	5J	30	25	8.0		.05u	1.0	1.0m	200 Δ				3pZ	DPL	X45		
25	GME4003	250m	80MΔ	2.0m	5J	30	25	8.0		.05u	1.0	1.0m	300 Δ				3pZ	DPL	X45		
26	2N2678	250m	70M	1.8m	5S	45	35	2.0	25m	100n	5.0	1.0m	45 Δ	1.0uZb	60	7.5	3.0p	DPL*	TO46		
27	MT896	250m	80MΔ	1.7m	5J	60		5.0		1.0u	10	150m	40 †				20p	PE	u13		
28	MT897	250m	80MΔ	1.7m	5J	60		5.0		1.0u	10	150m	80 †				20p	PE	u13		
29	MT898	250m	80MΔ	1.7m	5J	120		7.0		2.0u	10	150m	40 †				15p	PE	u13		
30	MT899	250m	80MΔ	1.7m	5J	120		5.0		2.0u	10	150m	80 †				15p	PE	u13		
31	MT1613	250m	80MΔ	1.7m	5J	75		7.0		.01u	10	150m	80				18p	PL	u13		
32	MT1711	250m	80MΔ	1.7m	5J	75		7.0		.01u	10	150m	200 †				25p	PE	u13		
33	2N10601	250m	100M	2.0m	5J			5.0	50m	100n	5.0	10m	50			7.6p	D	TO28			
34#	2SC16	250m	100MΔ	1.7m	5J	25	20	5.0	30m	2.5u	1.0	10m	25 †				7pZ	PL	TO18		
35#	2SC16A	250m	100MΔ	1.7m	5J	25	20	5.0	30m	1.0u	1.0	10m	30 †				7pZ	PL	TO18		
36	MT870	250m	100MΔ	1.7m	5J	100		7.0		.01u	10	150m	80 †				15p	PE	u13		
37	MT871	250m	100MΔ	1.7m	5J	100		7.0		.01u	10	150m	200 †				15p	PE	u13		
38	MT910	250m	100MΔ	1.6m	5J	100		7.0		25n	5.0	1.0m	100 †				15p	PE	u13		
39	MT911	250m	100MΔ	1.6m	5J	100		7.0		25n	5.0	1.0m	50 †				15p	PE	u13		
40	MT912	250m	100MΔ	1.6m	5J	100		7.0		25n	5.0	1.0m	30 †				15p	PE	u13		
41	MT1893	250m	100MΔ	1.7m	5J	120		7.0		.01u	10	150m	80 †				15pZ	PL	u13		
42#	2SC17	250m	150MΔ	1.7m	5J	20	20	5.0	50m	2.5u	6.0	2.0m	30			4.0p	PL	TO18			
43#	2SC17A	250m	150MΔ	1.7m	5J	25	20	5.0	50m	1.0u	10	10m	30			4.0p	PL	TO18			
44#	2SC360	250m	150MΔ	1.7m	5J	30	18	5.0	100m	1.0u	10	10m	100			7pZ	PL	TO18			
45#	BFY391	250m	150MΔ	1.7m	5J	45	25	5.0	100m	.05u	1.0	10m	35 Δ	8.0u	3.2k	30	5.0p	PL	TO18		
46#	BFY391	250m	150MΔ	1.6m	5J	45	25	5.0	100m	5.0n	1.0	10m	35 Δ	8.0u	3.2k	30	5.0p	PL	TO18		
47	PMT218	250m	150M	1.7m	5J	60		5.0		1.0u	10	150m	75 †				20p	MEA	TO51		
48	PMT219	250m	150M	1.7m	5J	60		5.0		1.0u	10	150m	75 †				20p	MEA	TO51		
49	2N958	250m	200M		5J	25	15	5.0		10u	10	10m	2.0 Δ				7pZ	ME	u5		
50	2N2214	250m	200MΔ		5J	25	15	5.0		5.0n	1.0	10m	2.0 Δ				7.0pZ	PL	TO51		
51#	2SC103	250m	200MΔ	1.7m	5J	25	20	5.0	50m	1.0u	1.0	10m	35 †				7pZ	PL	TO18		
52	GME2001	250m	200MΔ	2.5m	5J	35	20	4.0		.05u	1.0	10m	40 Δ				5pZ	DPL	X45		
53	GME2002	250m	200MΔ	2.5m	5J	35	20	4.0		.05u	1.0	10m	100 Δ				5pZ	DPL	X45		
54	MT753	250m	200M	1.7m	5J	25		5.0		.50u	1.0	10m	80			5.0p	ME	u13			
55	PMT1787M	250m	200M	7.7m	5J	25		5.0	200m	.50u	1.0	1.0m	40 Δ			5.0p	PL	u7			
56	PMT1787T	250m	200M	7.7m	5J	25		5.0	200m	.50u	1.0	1.0m	40 Δ			5.0p	PL	u7			
57#	2SC103A1	250m	250MΔ	1.7m	5J	30	20	5.0	80m	1.0u	1.0	10m	80 †			4.0p	PL	TO18			
58#	2SC104	250m	250MΔ	1.7m	5J	25	20	5.0	50m	1.0u	1.0	10m	32			4.0p	PL	TO18			
59#	2SC323	250m	250MΔ	1.7m	5J	40	20	5.0	100m	1.0u	1.0	10m	90 †			3.0p	PE	TO18			
60	CS24811	250m	300MΔ		5J	40	15	5.0		1.0u	1.0	10m	40 †#Δ			5pZ	DEA	R97a			
61	GME1001	250m	300MΔ	2.5m	5J	45	45	4.0		.05u	1.0	10m	40 Δ			2.5pZ	DPL	X45			
62	GME1002	250m	300MΔ	2.5m	5J	45	45	4.0		.05u	1.0	10m	100 Δ			2.5pZ	DPL	X45			
63	GME90211	250m	300MΔ	2.5m	5J	40	15	5.0		.05u	1.0	10m	30 Δ			6pZ	PE	X45			
64	GME90221	250m	300MΔ	2.5m	5J	25	12	4.0		.50u	1.0	10m	30 Δ			6pZ	PE	X45			
65	MT706	250m	300MΔ	1.7m	5J	25		3.0		.50u	1.0	10m	20 †			5.0p	ME	u13			
66	MT706A	250m	300MΔ	1.7m	5J	25		3.0		.50u	1.0	10m	40 †			5.0p	ME	u13			
67	MT706B	250m	300MΔ	1.7m	5J	25		5.0		.50u	1.0	10m	40 †			5.0p	ME	u13			
68	MT707	250m	300MΔ	1.7m	5J	56		5.0		5.0u	1.0	10m	9.0 Δ			5.0p	ME	u13			
69	MT708	250m	300MΔ	1.6m	5J	40		5.0		25n	1.0	10m	45 †			6.0p	PL	u13			
70	NS2525	250m	300MΔ	2.0m	5A	45	30	4.0		500n	1.0	150m	50 †			5.0p	PE	ZA21			
71	T1419	250m	300MΔ	2.5m	5J	30	30	6.0	30m	.50u	5.0	1.0m	90 Δ			5pZ	PE	X20			
72	GME90011	250m	400MΔ	2.5m	5J	40	15	4.5		.50u	1.0	10m	40 Δ			4pZ	PE	X45			
73	GME90021	250m	400MΔ	2.5m	5J	30	12	4.5		.50u	1.0	10m	30 Δ			4pZ	PE	X45			
74	MT743	250m	400MΔ	1.7m	5J	20		5.0		.50u	1.0	10m	40 †			5.0p	PE	u13			
75	MT744	250m	400MΔ	1.7m	5J	20		5.0		.50u	1.0	10m	80 †			5.0p	PE	u13			
76	PMT221	250m																			

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	TYPE No.	1] MAX. COLL. DISS. @25°C (W)	2] DERATE IN FREE AIR (Hz)	T ABS MAX RATINGS @25°C				TYPICAL h _{FE} PARAMETERS										Cob (F)	DESCRIPTION		L E A D O D E
				M E M P	BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	Icbo @MAX Vcb (A)	BIAS			COMMON EMITTER			Cob (F)	STRUC-TURE		DWG. No.		
										Vcb (V)	Ic (A)	hfe	hoe (mhos)	hie (Ω)	hre (X.0001)						
1	HVT200	300m	6.0M	333u	200	200	6.0	200u	7.0	5.0m	20	20	20	20	20	20	20	6.0p	ME	TO46	
2	HVT400	300m	6.0M	333u	400	300	6.0	200u	7.0	5.0m	20	20	20	20	20	20	20	6.0p	ME	TO46	
3	HVT600	300m	6.0M	333u	600	400	6.0	200u	7.0	5.0m	25	25	25	25	25	25	25	6.0p	ME	TO46	
4	HVT800	300m	6.0M	333u	800	400	6.0	200u	7.0	5.0m	30	30	30	30	30	30	30	6.0p	ME	TO46	
5	HVT900	300m	6.0M	333u	900	400	6.0	200u	7.0	5.0m	30	30	30	30	30	30	30	6.0p	ME	TO46	
6	HVT1000	300m	6.0M	333u	1.0k	400	6.0	200u	7.0	5.0m	30	30	30	30	30	30	30	6.0p	ME	TO46	
7	2N3462	300m	10MΔ	2.0m	50	35	5.0	30m	10u	5.0	1.0m	150 Δ	20 t	100u	20k	20	6.0p	PE	TO18		
8	BSY68	300m	20MΔ	1.6m	120	45	5.0	50m	10u	5.0	1.0m	150 Δ	20 t	100u	20k	20	6.0p	PE	TO18		
9	2N929/51	300m	30MΔ	1.6m	45	45	5.0	30m	10u	5.0	1.0m	60 Δ	1.0u	32	6.0	8.0p	PL	TO51			
10	2N930/51	300m	30MΔ	1.6m	45	45	5.0	30m	10u	5.0	1.0m	150 Δ	1.0u	32	6.0	8.0p	PL	TO51			
11	ST1700	300m	30MΔ	1.6m	60	30	5.0	20m	5.0	1.0m	80 t	1.0u	32	6.0	8.0p	PL	TO18				
12	2N841/46	300m	40MΔ	2.3m	45	45	5.0	50m	1.0u	5.0	1.0m	140	350nb	40	2.0	8.0p	MEt	TO46			
13#	SDD421	300m	40MΔ	2.5m	50	30	8.0	300m	100u	15	6.0m	30 Δ	50u	650	14k	40p	PE	TO46			
14	2N3463	300m	45MΔ	2.0m	50	45	6.0	30m	2.0u	5.0	1.0m	150 Δ	100u	14k	40p	PE	TO18				
15	11C702	300m	50MΔ	2.0m	60	40	5.0	1.0	10m	10	150m	100 t	100u	14k	40p	PE	TO50				
16	11C704	300m	50MΔ	2.0m	80	50	8.0	1.0	10m	10	150m	40 t	100u	14k	40p	PE	TO50				
17	11C710	300m	50MΔ	2.0m	120	80	7.0	1.0	10m	10	150m	40 t	100u	14k	40p	PE	TO50				
18#	BCY51	300m	50MΔ	2.0m	30	20	5.0	100m	50m	1.5	100m	60 t	10u	4.2k	25	15p	PL	TO18			
19#	ST541	300m	50MΔ	2.0m	20	20	5.0	100m	50m	3.0	1.0m	30 t	10u	4.2k	25	15p	PE	TO18			
20	A133	300m	60MΔ	2.0m	120	80	5.0	20u	3.0	4.0m	20 t	10u	4.2k	25	15p	PE	TO18				
21	A323	300m	60M	2.0m	30	30	5.0	30m	100n	5.0	10m	300 t	10u	4.2k	25	15p	PL	TO18			
22	A324	300m	60M	2.0m	30	30	5.0	30m	100n	5.0	10m	400 t	10u	4.2k	25	15p	PL	TO18			
23#	SDD821	300m	70MΔ	2.5m	50	30	6.0	100m	100u	15	6.0m	30 Δ	50u	650	14k	40p	PE	TO46			
24	CS7181	300m	80MΔ	2.0m	60	40	5.0	100m	1.0u	15	150m	40 Δ	500n	12u	3.6	35p	D	R97a			
25	CS720A	300m	80MΔ	2.0m	120	80	7.0	10m	10	10	150m	40 t	500n	12u	3.6	35p	PL	R97a			
26	2N2297/51	300m	96.MΔ	1.7m	80	35	7.0	0.1u	10	10	150m	40 t	500n	1.3k	1.0	1.2p	PE	TO51			
27	CS718A	300m	96.MΔ	1.7m	75	50	5.0	10m	10	10	150m	40 t	500n	34	3.0	25p	PLt	R97a			
28	2N1958/181	300m	100MΔ	1.7m	60	40	5.0	500m	50u	10	150m	40 Δ	500n	34	3.0	25p	PLt	TO18			
29	2N1959/181	300m	100MΔ	1.7m	60	40	5.0	500m	50u	10	150m	80 Δ	500n	34	3.0	25p	PLt	TO18			
30	2N1959A/511	300m	100MΔ	1.7m	60	40	5.0	500m	50u	10	150m	10 Δ	500n	34	3.0	25p	PLt	TO18			
31	2N2571	300m	100MΔ	2.0m	20	15	15	10m	10	10	100m	50 t	100m	50 t	100m	10p	PE	TO18			
32	2N2572	300m	100MΔ	2.0m	20	15	15	10m	10	10	100m	50 t	100m	50 t	100m	10p	PE	TO18			
33	TI411	300m	100MΔ	3.3m	50	30	5.0	800m	500m	2.0	50m	180 t	100m	50 t	100m	12p	PE	X20			
34	CS956	300m	110MΔ	2.0m	75	50	7.0	10m	10	10	150m	100 t	500n	34	5.0	25p	PL	R97a			
35	D11C702	300m	130MΔ	1.7m	40	50	5.0	15u	10	10	150m	100 t	500n	34	5.0	25p	PE	TO50			
36	D11C704	300m	130MΔ	2.0m	50	80	8.0	25u	10	10	150m	40 t	500n	34	5.0	25p	PE	TO50			
37	D11C710	300m	130MΔ	1.7m	80	50	7.0	15u	10	10	150m	40 t	500n	34	5.0	25p	PE	TO50			
38	2N728t	300m	150M	4.0m	15	15	3.0	5u	10	10	10m	7.5	100m	50 t	100m	8.0p	ME	TO18			
39	2N729t	300m	150M	4.0m	30	30	3.0	5u	10	10	10m	7.5	100m	50 t	100m	8.0p	ME	TO18			
40	2N4098*	300m	150MΔ	1.8m	55	55	7.0	10m	100m	1.0	1.0m	175 t	100m	50 t	100m	8.0p	ME	L2m			
41	2N706A/511	300m	200MΔ	2.5m	25	15	5.0	10u	1.0	1.0	10m	20	100m	50 t	100m	3.5p	ME	TO46			
42	2N706C/511	300m	200MΔ	1.6m	40	15	5.0	200m	1.0u	1.0	10m	20 t	100m	50 t	100m	5.0p	PE	TO51			
43	2N753/511	300m	200MΔ	2.5m	25	20	5.0	200m	500m	1.0	10m	40 t	100m	50 t	100m	5.0p	PE	TO51			
44	2N2397t	300m	200MΔ	1.7m	35	20	5.0	200m	1.0u	1.0	10m	25 t	100m	50 t	100m	5.0p	PE	TO51			
45	2N2719	300m	200MΔ	2.0m	25	8.0	3.0	200m	1.0u	5.0	60m	30 t	100m	50 t	100m	5.0p	PE	TO18			
46	40218t	300m	200MΔ	2.0m	25	20	5.0	50m	500m	1.0	10m	20 t	100m	50 t	100m	5.0p	PE	TO52			
47	40222t	300m	200MΔ	2.0m	25	20	5.0	200m	30m	1.0	10m	20 t	100m	50 t	100m	6.0p	PE	TO52			
48#	BF169	300m	200MΔ	2.0m	20	15	3.0	10u	10	10	10m	35 t	100m	50 t	100m	6.0p	PE	TO18			
49	NS200	300m	200MΔ	1.7m	25	5.0	100m	50m	5.0	10m	15 t	100m	50 t	100m	6.0p	ME	TO18				
50#	PEP9	300m	200MΔ	2.0m	40	20	5.0	200m	50m	4.0	10m	40 t	100m	50 t	100m	6.0p	PE	TO18			
51#	ST511	300m	200MΔ	2.0m	25	15	6.0	100m	50m	3.5	10m	40 t	100m	50 t	100m	6.0p	PE	TO18			
52#	TK255A	300m	200MΔ	2.0m	20	15	6.0	100m	25m	9.0	10m	2.0 Δ	100m	50 t	100m	6.0p	PE	TO18			
53#	TK256A	300m	200MΔ	2.0m	20	15	6.0	100m	25m	9.0	10m	2.0 Δ	100m	50 t	100m	6.0p	PE	TO18			
54#	TK264A	300m	200MΔ	2.0m	40	3.0	3.0	100m	0.1u	9.0	10m	25 Δ	100m	50 t	100m	5.5p	PL	TO18			
55	A157	300m	250MΔ	2.0m	45	5.0	100m	50m	5.0	2.0m	300	22u	4.8k	2.5	4.5p	PE	TO18				
56	A158	300m	250MΔ	2.0m	20	5.0	100m	50m	5.0	2.0m	300	22u	4.8k	2.5	4.5p	PE	TO18				
57	A747	300m	250M	2.0m	45	5.0	100m	50m	5.0	2.0m	210	22u	4.8k	2.5	4.5p	PE	MM10				
58	A748	300m	250MΔ	2.0m	20	5.0	100m	50m	5.0	2.0m	300	22u	4.8k	2.5	4.5p	PE	MM10				
59#	STO1	300m	250MΔ	500u	35	14	5.0	50n	1.0	1.0	10m	35 t	100m	50 t	100m	12p	PE	TO18			
60#	ST5011	300m	270MΔ	500u	25	15	4.5	25m	1.0	1.0	10m	22 t	100m	50 t	100m	12p	PE	TO18			
61#	ST5021	300m	270MΔ	500u	35	15	6.0	25m	1.0	1.0	10m	20 t	100m	50 t	100m	12p	PE	TO18			
62	JAN2N851t	300m	300MΔ	2.0m	20	12	5.0	200m	35m	10m	20 t	100m	50 t	100m	5.0p	PE	TO50				
63	JAN2N852t	300m	300MΔ	2.0m	20	12	5.0	200m	35m	10m	20 t	100m	50 t	100m	5.0p	PE	TO50				
64	2N988	300m	300MΔ	2.0m	20	10	3.0	200m	50u	1.0	10m	20 t	100m	50 t	100m	4.0p	PE	TO18			
65	2N989	300m	300MΔ	2.0m	20	10	3.0	200m	50u	1.0	10m	20 t	100m	50 t	100m	4.0p	PE	TO18			
66	2N1708At	300m	300MΔ	2.0m	40	15	5.0	500m	25m	1.0	10m	30 t	100m	50 t	100m	3.5p	PE	TO46			
67	2N2319	300m	300MΔ	1.7m	30	5.0	5.0	1.0u	4.0	2.0m	40 t	100m	50 t	100m	5.0p	PE	TO46				
68	2N3310	300m	300MΔ	1.7m	35	15	3.0	200m	2.0	2.0m	10 t	100m	50 t	100m	3p	PE	TO38				
69	A157C	300m	300MΔ	2.0m	45	5.0	100m	50m	5.0	2.0m	450 Δ	22u	7.3k	3.5	4.5p	PE	TO18				
70	A159	300m	300MΔ	2.0m	20	5.0	100m	50m	5.0	2.0m	500	22u	7.3k	3.5	4.5p	PE	TO18				
71	A344t	300m	300MΔ	2.0m	20	15	5.0	100m	10u	3.5	10m	30 t	100m	50 t	100m	5p	PE	TO18			
72	A345t	300m	300MΔ	2.0m	20	15	5.0	100m	10u	3.5	10m	30 t	100m	50 t	100m	5p	PE	TO18			
73	A346t	300m	300MΔ																		

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 fab (Hz)	DERATE IN FREE AIR W/°C	M A M X P	ABS MAX RATINGS @25°C						MAX. I _{cb0} @ MAX V _{cb} (A)	TYPICAL 'h' PARAMETERS						DESCRIPTION	L C O A D E			
						V _{be} (V)	V _{ce0} (V)	V _{be0} (V)	I _c (A)	V _{cb} (V)	I _e (A)		h _{fe}	COMMON EMITTER			Cob (F)	STRUC TURE			DWG. No.		
													BIAS										
													V _{cb} (V)	I _e (A)	h _{fe}	hoe (mhos)	hie (Ω)	hre (X.0001)					
1	2N835/51†	300m	450M	2.5m	§J	25	20	3.0	200m	50u	1.0	10m	40	†	2.8p	ME	T051						
2	2SC396	300m	450M	2.0m	§J	40	20	5.0	200m	10u	1.0	10m	200	†	3.0p	PE	T018						
3	2N834/51†	300m	500M	2.5m	§J	40	30	5.0	200m	50u	1.0	10m	40	†	2.8p	ME	T05						
4	MM1943	300m	500MΔ	2.0m	§J	40	40	5.0	200m	100n	1.0	10m	50	†	4.0p	E	T018		∅				
5	ST6110†	300m	500M	1.6m	§J	10	5.0	3.0	50m	50n	50	10m	20			PE	T018						
6	78EP†	300m	600MΔ	3.0m	†J	15	6.0	4.0	200m#	.05u	.40	20m	30	†	3p	PL†	u46		A				
7	ST71	300m	600MΔ	2.5	§S	25	15	3.0	10n	1.0	3.0m	20	†	3.0p	PE	T018		∅					
8	ST72	300m	600MΔ	2.5	§S	25	15	3.0	10n	1.0	3.0m	50	†	3.0p	PE	T018		∅					
9	2N2368/51†	300m	640MΔ	1.7m	§J	40	15	4.5	500m	40u	1.0	10m	40	†	4p	PEΔ	T051						
10	40404	300m	700M	2.0m	§A	40	16	5.0	500m	25n	2.0	50m	65	†	4.0p	PE	T052		A∅				
11	2N709/52†	300m	800MΔ	1.7m	§J	15	6.0	4.0	.05u	.50	10m	55	†	3p	PE	T052							
12	2N709A/51†	300m	800M	1.6m	§J	15	6.0	4.0	5.0n	.50	10m	60	†	3.0p	PE	T051							
13	2N917/51	300m	800MΔ	1.6m	§J	30	15	3.0	1.0n	1.0	3.0m	20	†	1.7p	PLΔ	T051							
14	2N2369/51†	300m	800MΔ	1.7m	§J	40	15	4.5	500m	40u	1.0	10m	80	†	4p	PE	T051						
15	2N2475/51†	300m	800M	1.7m	§J	15	6.0	4.0	10u	.40	20m	50	†	2.4p	PE	T051							
16	ST6125	300m	800MΔ	1.6m	§J	10	5.0	3.0	50n	.50	10m	20	†	3.0p	PEΔ	T018		∅					
17	S5327E	300m	900M	1.7m	†J	30	15	3.0	10u	†				2.2p	PE	T018							
18	2N918/51	300m	960MΔ	1.7m	§J	30	15	3.0	.01u	3.0	30m	20	†	1.7p	PE∅Δ	T051							
19	2N2784/51†	300m	1.0G	1.7m	§J	15	6.0	4.0	5n	.50	10m	120	†	3p	PE	T051		A					
20	2N2784/52†	300m	1.0GΔ	1.7m	§J	15	6.0	4.0	5n	.50	10m	120	†	3p	PE	T052							
21	ST6120†	300m	1.0G	1.6m	§J	10	5.0	3.0	50m	50n	.50	10m	20		3p	PE	T018						
22	2N709/51†	300m	1.2G	1.7m	§J	15	6.0	4.0	.05u	.50	10m	55	†	3p	PE	T051							
23	2N3633/52†	300m	1.3GΔ	1.7m	§J	15	6.0	4.0	5n	.50	10m	50	†	2.5p	PE	T052							
24	D33K1	330m	3.3m	5.0	§S	30	5.0	5.0	1.0	20n	1.0	500m	35		9.0p		T098		B				
25	D33K2	330m	3.3m	70	§S	40	5.0	1.0	20n	1.0	500m	35		9.0p		T098		B					
26	D33K3	330m	3.3m	80	§S	50	5.0	1.0	20n	1.0	500m	35		9.0p		T098		B					
27	RT730M†	350m	20.M	2.3m	§J	60	5.0	5.0	1.0u	10	150m	40	†	35p	PL	T046							
28	RT731M†	350m	20.M	2.3m	§J	60	5.0	5.0	1.0u	10	150m	80	†	35p	PL	T046							
29	ZT27	350m	70MΔ	2.8m	§J	100	100	6.0	50m	50u	6.0	10m	38	†		PE	T05						
30	RT910M	350m	96MΔ	2.0m	§J	100	60	7.0	25n	.50	1.0m	125			130nb	16	750m	15	†	PL	T018		
31	FM2242†	350m	250MΔ	2.0m	§J	40	15	5.0	225m	100n	1.0	10m	40	†	6.0p	PE	T046		∅				
32	USAF522ES075M†	350m	250MΔ	1.4m	§J	35	20	5.0	200m	20n	10	10m	30	†		PLE	X34						
33	USAF522ES076M†	350m	250MΔ	1.4m	§J	35	20	5.0	200m	20n	10	10m	30	†		PLE	X34						
34	USAF523ES077M†	350m	250MΔ	1.4m	§J	35	20	5.0	200m	20n	10	10m	30	†		PLE	X34						
35	USAF523ES078M†	350m	250MΔ	1.4m	§J	35	18	5.0	200m	100n	10	10m	30	†		PLE	X34						
36	2N1992†	350m	430M	2.0m	§	15	6.0	5.0	50m	50n	2.0	1.0m	70		500nb	30	11	5.0p	1.0p	EA	T018		∅
37	NS9710	350m	1.0G	2.0m	†J	30	20	4.0	100m	10u	10	4.0m	30	†	65u	475	2.7			PE	T072		G
38	ME495	360m	2.0m	2.0m	§J	40	5.0	5.0	1.0u	5.0	10m	120	†						PL	T018			
39	SPC42	360m	2.0m	2.0m	§S	25	10	6.0	50n										PE	T018			
40	PT703	360m	30.M	2.0m	§J	25	25	5.0	200m	5.0u	10	80	†						PE	T018			
41	ST250	360m	40MΔ	2.0m	§S	60	40	6.0	100n	10	150m	40	†	25p	PE	T018							
42	ST251	360m	60MΔ	2.0m	§S	60	40	6.0	10n	10	150m	100	†	25p	PE	T018							
43	TC2483	360m	60MΔ	2.0m	§J	60	60	6.0	.01u	5.0	0.1m	40	†	6p	PE	T018							
44	TC2484	360m	60MΔ	2.0m	§J	60	60	6.0	.01u	5.0	0.1m	100	†	6p	PE	T018							
45	ME900A	360m	100MΔ	2.0m	§J	40	20	5.0	10n	5.0	100u	70	†	1.0ub	32	10	6.0p		PL∅	T018			
46	ME901A	360m	100MΔ	2.0m	§J	40	20	5.0	10n	5.0	100u	175	†	1.0ub	32	10	6.0p		PL∅	T018			
47	NS1900	360m	100MΔ	2.0m	§A	100	60	10	1.0n	5.0	10u	200	†	5.0p	PE	T018							
48	ST06	360m	100MΔ	2.0m	§S	50	35	5.0	20n	5.0	10m	80	†	6.0p	PEΔ	T018							
49	GME8003	360m	150MΔ	3.6m	†J	25	25	4.0	.10u	5.0	50m	30	†	12p	PE	X45							
50	PET6003	360m	150M	2.5	§S	25	25	4.0	500m	.10u	5.0	50m	100	†	12p	PE	T018						
51	BC152	360m	180M	2.8m	§J	35	35	5.0	500m	50n	10	1.0m	220		14u	6.1k	2.9			PE	T098		B
52	BC180	360m	180M	2.8m	§J	45	45	5.0	500m	50n	10	1.0m	210		13u	5.9k	2.7			PE	T098		B
53	GME6001	360m	200MΔ	3.6m	†J	40	30	5.0	.05u	1.0	50m	30	†	10p	PE	X45							
54	GME6002	360m	200MΔ	3.6m	†J	40	30	5.0	.05u	1.0	50m	75	†	10p	PE	X45							
55	LDS208†	360m	200MΔ	2.9m	§J	60	30	5.0	10n	10	300m	30	†	8.0p	PE	u34						A	
56	C63	360m	250MΔ	2.0m	§A	50	35	5.0	25n	5.0	10m	35	†	3.0p	PL	T018							
57	C64	360m	250MΔ	2.0m	§A	50	35	5.0	25n	5.0	10m	65	†	3.0p	PL	T018							
58	LDS206†	360m	250M	2.0m	§J	40	15	5.0	30n	1.0	10m	100	†	6.0p	PE	T0122						P	
59	PPT720	360m	250MΔ	2.0m	§J	25	15	5.0	200m	50u	5.0	10m	40	†	5.0p	PL	T046						
60	PT2760	360m	250MΔ	2.0m	§J	35	20	4.0	200m	15u	10	10m	40	†	5.0p	PE†	T018						
61	ST43	360m	250MΔ	2.0m	§S	75	50	5.0	25n	5.0	10m	100	†	5.0p	PEΔ	T018							
62	2N784A/46†	360m	300M	2.0m	§J	40	20	5.0	200m	100u	1.0	10m	88	†	3.5p	E	T046					∅	
63	2N784A/51†	360m	300M	2.0m	†J	40	20	5.0	200m	100u	1.0	10m	88	†	3.5p	E	T051					∅	
64	2N914A†	360m	300MΔ	2.0m	§J	40	15	5.0	5.0n	1.0	10m	30	†	6.0p	PE	R64							
65	2N2272†	360m	300MΔ	2.0m	§J	40	15	5.0	500m	25n	1.0	10m	60	†	6.0p	PE	T018						
66	2N4421†	360m	300MΔ	2.6m	§S	30	12	5.0	500n	.40	30m	25	†	5.0p	†	X55						A	
67	2SC621	360m	300MΔ	2.0m	§J	40	15	5.0	.02u	1.0	10m	3.0		6.0p	PL	T018							
68	40219†	360m	300MΔ	2.0m	§J	40	15	5.0	30n	1.0	10m	30	†	6.0p	PE	T052						∅	
69	40221†	360m	300MΔ	2.0m	§J	40	15	5.0	30n	1.0	10m	30	†	6.0p	PE	T052						∅	
70	ST021	360m	300MΔ	2.0m	§J	40	20	5.0	20n	1.0	10m	20	†	6.0p	PEΔ	T018						∅	
71	ST031	360m	300MΔ	2.0m	§S	40	20	5.0	20n	1.0	10m	20	†	6.0p	PEΔ	T018						∅	
72	ST041	360m	300MΔ	2.0m	§S	40	20	5.0	20n	1.0	10m	40	†	6.0p	PEΔ	T018						∅	
73	ST051	360m	300MΔ	2.0m	§S	40	20	5.0	20n	1.0	10m	100	†	6.0p	PEΔ	T018						∅	
74	ST69†	360m	300MΔ	2.0m	§S																		

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 DERATE IN fab (Hz)	M FREE AIR W/°C	T ABS MAX RATINGS @25°C BVcbo (V)	BVceo (V)	BVebo (V)	Ic (A)	MAX. Icb0 @MAX Vcb (A)	TYPICAL 'h' PARAMETERS							DESCRIPTION	L C O D E			
										BIAS			COMMON EMITTER						Cob (F)	STRUC-TURE	DWG. No.
										Vcb (V)	Ie (A)	hfe	hoe (mhos)	hie (Ω)	hre (X.0001)						
1	2N930A/46	400m	30MΔ	3.0m	60	45	8.0	30m	2.0m	5.0	1.0m	150	1.0ub	28	8.0	4.0p	PL	TO46			
2	2N2517	400m	30MΔ	2.3m	125	80	6.0	50m	5n	5.0	1.0m	15 Δ	1.0ub	1.2k	6.0p	MEΔ	TO46				
3	NS475	400m	80MΔ	2.2m	30	30	6.0	50m	200n	5.0	1.0m	35	1.0nZb	80	8.0pZ	MEΔ	TO46				
4	NS476	400m	80MΔ	2.2m	30	30	6.0	50m	50u	5.0	1.0m	70	1.0nZb	80	8.0pZ	MEΔ	TO46				
5	NS477	400m	80MΔ	2.2m	30	30	6.0	50m	50u	5.0	1.0m	190	1.0nZb	80	8.0pZ	MEΔ	TO46				
6	NS478	400m	80MΔ	2.2m	60	60	8.0	50m	50u	5.0	1.0m	35	1.0nZb	80	8.0pZ	ME	TO46				
7	NS479	400m	80MΔ	2.2m	60	60	8.0	50m	50u	5.0	1.0m	70	1.0nZb	80	8.0pZ	ME	TO46				
8	NS480	400m	80MΔ	2.2m	60	60	8.0	50m	50u	5.0	1.0m	190	1.0nZb	80	8.0pZ	ME	TO46				
9	NS731	400m	80M	2.2m	15	15	4.0	100m	1.0u	5.0	1.0m	33	800nb	35	6.0	5.0p	MEΔ	TO18			
10	NS731A	400m	80M	2.6m	15	15	4.0	100m	100n	5.0	100u	20 Δ	800nb	35	6.0	5.0p		TO18			
11	NS732	400m	80M	2.2m	15	15	4.0	100m	1.0u	5.0	1.0m	83	800nb	35	6.0	5.0p	MEΔ	TO18			
12	NS732A	400m	80M	2.6m	15	15	4.0	100m	100n	5.0	100u	80 Δ	800nb	35	6.0	5.0p		TO18			
13	NS733	400m	80M	2.2m	30	30	4.0	100m	1.0u	5.0	1.0m	35	800nb	35	6.0	5.0p	MEΔ	TO18			
14	NS733A	400m	80M	2.6m	30	30	4.0	100m	100n	5.0	100u	20 Δ	800nb	35	6.0	5.0p		TO18			
15	NS734	400m	80M	2.2m	30	30	4.0	100m	1.0u	5.0	1.0m	80	800nb	35	6.0	5.0p	MEΔ	TO18			
16	NS734A	400m	80M	2.6m	30	30	4.0	100m	100n	5.0	100u	80 Δ	800nb	35	6.0	5.0p		TO18			
17	NS1972	400m	90MΔ	2.2m	25	15	5.0	100n	5.0	5.0	100u	40 Δ	500nb	27	6.0	5.0p		TO18	A		
18	NS1973	400m	90MΔ	2.2m	25	15	5.0	100n	5.0	5.0	100u	100 Δ	500nb	27	6.0	5.0p		TO18	A		
19	NS1974	400m	90MΔ	2.2m	25	15	5.0	100n	5.0	5.0	100u	40 Δ	500nb	27	6.0	5.0p		TO46			
20	NS1975	400m	90MΔ	2.2m	25	15	5.0	100n	5.0	5.0	100u	100 Δ	500nb	27	6.0	5.0p		TO46			
21	2N1964†	400m	100MΔ	2.7m	60	40	5.0	500m	50u	10	150m	20 Δ			18pZ			TO46	A		
22	2N1964/46†	400m	100MΔ	2.7m	60	40	5.0	500m	50u	10	150m	40 Δ			18pZ	E		TO46	A		
23	2N1965†	400m	100MΔ	2.7m	60	40	5.0	500m	50u	10	150m	40 Δ			18pZ			TO46	A		
24	2N1965/46†	400m	100MΔ	2.7m	60	40	5.0	500m	100u	10	150m	80			18pZ	E		TO46	A		
25	ST6593	400m	100MΔ	2.2m	60	30	5.0	50n	50n	10	150m	20 Δ			10pZ	PE		TO18			
26	ST6594	400m	100MΔ	2.2m	60	30	5.0	50n	50n	10	150m	100 Δ			10pZ	PE		TO18			
27	RT409E	400m	150M	3.0m	60	30	5.0	50u	50u	10	150m	40 Δ			15p	PL		TO46			
28	RT896AM	400m	150M	4.5m	60	30	5.0	100n	100n	10	5.0m	45 Δ	500nb	5.4	1.0	20	PLΔ	TO46			
29	RT897AM	400m	150M	2.6m	60	30	5.0	100n	100n	10	10m	70 Δ	500nb	5.4	1.0	20	PLΔ	TO46			
30	ST6600	400m	150MΔ	2.2m	50	30	5.0	50n	50n	10	150m	40 Δ			11pZ	PE		TO18			
31#	FT005	400m	175MΔ	3.2m	50	25	6.0	75m	100u	15	6.0m	35	120u	600	7pZ	ME		TO5			
32#	FT006	400m	175MΔ	3.2m	50	25	6.0	75m	100u	15	6.0m	70	120u	600	7pZ	ME		TO5			
33	RT698M	400m	180M	4.0m	120		5.0	5.0n	5.0n	10	150m	40 Δ			1p	PLΔ		TO46			
34	RT719M†	400m	180M	2.3m	120		5.0	2.0u	2.0u	10	150m	30 Δ			14p	PLΔ		TO46			
35	2N706C/46†	400m	200MΔ	2.3m	40	15	5.0	200m	1.0u	1.0	10m	20 Δ			5pZ	E		TO46			
36	2N1962†	400m	200MΔ	2.7m	40	20	5.0	200m	25u	1.0	10m	20 Δ			3.5pZ	E		TO46	A		
37	2N1962/46†	400m	200MΔ	2.7m	40	20	5.0	200m	25u	1.0	10m	50 Δ			3.5pZ	E		TO46	A		
38	2N1963†	400m	200MΔ	2.7m	30	15	5.0	200m	25u	1.0	10m	25 Δ			3.5pZ	E		TO46	A		
39	2N1963/46†	400m	200MΔ	2.7m	30	15	5.0	200m	100u	1.0	10m	25 Δ			3.5pZ	E		TO46	A		
40	2N2098A	400m	200MΔ		60	60	5.0	0.1u	0.1u	1.0	1.0m	40 Δ			8.0p	PE		TO18			
41	2N2097A	400m	200MΔ		60	60	5.0	0.1u	0.1u	1.0	1.0m	100 Δ			8.0p	PE		TO18			
42	2N2618/46	400m	200MΔ	1.7m	60	40	7.0	750m	250n	10	10m	30 Δ			14pZ	EM		TO46	A		
43#	SDD3000	400m	200MΔ	3.2m	30	20	3.0	100m	100u	15	6.0m	15 Δ			10p			TO5			
44#	FT052	400m	275M	3.1m	60	40	3.0	100m	100u	15	6.0m	40			5pZ	ME		TO5			
45#	FT008	400m	300MΔ	3.2m	50	30	5.0	75m	100u	15	6.0m	30	150u	600	4pZ	ME		TO5			
46#	FT008A	400m	300MΔ	3.2m	50	30	5.0	75m	100u	15	6.0m	60	150u	1.2k	4pZ	ME		TO5			
47#	FT053	400m	300M	3.1m	100	60	5.0	100m	100u	15	6.0m	60			5pZ	ME		TO5			
48	40283†	400m	375MΔ	2.2m	60	30	5.0	500m	500m	1.0	500m	10 Δ			5.8p	DPE		TO46	A		
49	2N706B/46	400m	400MΔ	3.3m	25	20	5.0	200m	10u	1.0	10m	40 Δ			4.5p	PE		TO46			
50	2N743/46†	400m	400MΔ	3.3m	20	12	5.0	200m	.35u	1.0	10m	40 Δ			5pZ	EM		TO46			
51	2N744/46†	400m	400MΔ	3.3m	20	12	5.0	200m	.35u	1.0	10m	80 Δ			5pZ	EM		TO46			
52	2N835/46†	400m	450MΔ	3.3m	25	20	3.0	200m	50u	1.0	10m	40 Δ			2.8p	ME		TO46			
53	2N709A/46†	400m	800MΔ	2.2m	15	6.0	4.0	5.0n	5.0n	1.0	10m	60 Δ			3.0pZ	PE		TO46			
54	2N917/46	400m	800MΔ	2.2m	30	15	3.0	1.0n	1.0n	1.0	3.0m	20 Δ			1.7pZ	PLΔ		TO46			
55	2N2475/46†	400m	800MΔ	2.3m	15	6.0	4.0	10u	4.0u	1.0	20m	50 Δ			2.4p	PE		TO46			
56	2N918/46	400m	960MΔ	2.3m	30	15	3.0	.01u	.01u	3.0	30m	20 Δ			1.7pZ	PE		TO46			
57	2N3633/46	400m	1.3GΔ	2.3m	15	6.0	4.0	50m	5n	5.0	10m	150 Δ			2.5pZ	PE		TO46			
58#	MC104	450mZ		5.0m	60			200m	5.0u	1.0	10m	10									
59#	MC105	450mZ		5.0m	100			200m	5.0u	1.0	10m	10									
60#	MC106	450mZ		5.0m	60			300m	5.0u	1.0	10m	10									
61#	MC107	450mZ		5.0m	100			300m	5.0u	1.0	10m	10									
62	CS696†	450m	64.MΔ		60	40	5.0	1.0u	1.0u	10	150m	20 Δ			35pZ	D		R97			
63	CS1893	450m	80.MΔ		120	80	7.0	0.1u	0.1u	10	150m	80 Δ	11u	2.8k	3.6	15pZ	PLΔ		R97		
64	CS1613	450m	130M		75	50	7.0	1.0n	1.0n	10	150m	80 Δ	12u	2.2k	3.6	25pZ	PLΔ		R97		
65	RT7007E	450m	150M	3.0m	60	50	5.0	50u	50u	10	150m	40 Δ	23u	4.4k	7.3	15p	ME		TO18		
66	CS1711	450m	160M		75	50	7.0	1.0n	1.0n	10	150m	130 Δ			25pZ	PLΔ		R97			
67	CS2218†	450m	400MΔ		60	30	5.0	.01u	.01u	10	150m	80 Δ			4.0p			R97			
68	CS2219†	450m	400MΔ		60	30	5.0	.01u	.01u	10	150m	150 Δ			4.0p			R97			
69	11B1259	500m		2.8m	100	60	7.0			10	150m	80 Δ	1.0uZb	8.0	4.0	4.0p	PL†		TO18		
70	K4002	500m		5.0m	30	12	2.0	50u	50u	10	8.0m	20 Δ			1.5pZ	PL†		RO38			
71	703B	500m	10MΔ	3.3m	60	30	3.0	50m	1.0u	5.0	1.0m	37 Δ	1.2uZb	38	10	7.0p	PL		TO5	A	
72	CDQ10002	500m	10M	3.3m	45	45	4.0	25m	500n	5.0	1.0m	16	250nb	25	1.2	7.0p	PL		TO5		
73	NS061	500m	10M	3.3m	45	45	4.0	25m	20u	5.0	1.0m	16	250nb	40	1.2	5.0p	ME				
74	USAF5 10ES030M†	500m	10MΔ	3.3m	60	55	3.0	50m	1.0u	5.0	1.0m	37 Δ	1.2uZb	50	10	20pZ	GD		TO39		
75	USAF5 10ES031M†	500m	10MΔ	3.3m	60	55	3.0	50m	1.0u	5.0	1.0m	40 Δ	1.2uZb	50	10	20pZ	GD		TO39		
76	CDQ10004	500m	11M	3.3m	45	45	4.0	25m	500n	5.0	1.0m	30	180nb	25	1.2	7.0p	PL		TO5		

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	TYPE No.	1 MAX. COLL. DISS. @25°C (W)	2 DERATE IN AIR W/C (Hz)	T M A X P	ABS MAX RATINGS @25°C				MAX. I _{co} @MAX V _{cb} (A)	TYPICAL h _{FE} PARAMETERS					Cob (F)	DESCRIPTION	L E A D E	
					V _{bcvo} (V)	V _{ce0} (V)	V _{ve0} (V)	I _c (A)		BIAS			COMMON EMITTER					
										V _{cb} (V)	I _e (A)	h _{fe}	h _{oe} (mhos)	h _{ie} (Ω)				h _{re} X.0001
1	NS433	500m	80.M	2.9m	20					4.0	2.0m	5.0 tΔ			8pZ	D	TO18	
2	NS434	500m	80.M	2.9m	20					4.0	2.0m	7.0 tΔ			8pZ	D	TO18	
3	NS435	500m	80.M	2.9m	20					4.0	2.0m	15 tΔ			8pZ	D	TO18	
4	NS436	500m	80.M	2.9m	45					4.0	2.0m	5.0 tΔ			8pZ	D	TO18	
5	NS437	500m	80.M	2.9m	45					4.0	2.0m	15 tΔ			8pZ	D	TO18	
6	NS438	500m	80.M	2.9m	45					4.0	2.0m	7.0 tΔ			8pZ	D	TO18	
7	SA1000	500m	80.M	2.9m	60					4.0	2.0m	15 tΔ			8pZ	D	TO18	
8	2N14441	500m	100M	4.0m	60	30	7.0		10u	5.0	10m	50 tΔ			7.0p	PL	L2	
9	2N1613/46	500m	130M	4.5m	75	50	7.0	250m	.50uZ	5.0Z	250mZ	25 t			32p	DME	TO29	
10#	2SC26	500m	150M	3.8m	60			100m	.01uZ	1.0Z	150mZ	80 t#	12.u	2.2k	3.6	32pZ	PLTΔ	TO46
11	2N1711/46	500m	160M	3.8m	75	50	7.0		.01uZ	1.0Z	150mZ	130 t	23.u	4.4k	7.3	4.0p	ME	TO46
12	NS33000	500m	180MΔ	2.9m	60			.01m	.01uZ	1.0Z	100m				8.0pZ	PE	TO18	
13	NS21001	500m	200MΔ	3.0m	25	12	3.0		.50uZ	1.0Z	10mZ	20 tΔ			6pZ	E	TO5	
14	NS21001	500m	200MΔ	3.0m	80	60	5.0		100uZ	1.0Z	500mZ	80 t#			10pZ	E	TO18	
15	NS9713	500m	900MΔ	4.0m	30	15	3.0		.01uZ	1.0Z	3.0mZ	50 t			3pZ	E	X16	
16#	BC175	580m	180MΔ	4.5m	35	35	5.0	500m	500n	1.0Z	10mZ	220	14u	6.1k	2.9	100pZ	PE	X28
17	2N1081	600m	5.9m	5.9m	40	40	10	750m	15u	7.0Z	500mZ	20 Δ			100pZ	Δ	TO5	
18	JAN2N1081	600m	5.9m	5.9m	40	40	10	750m	500n	7.0Z	500mZ	20 Δ			100pZ	Δ	TO5	
19	PT898	600m	4.0m	4.8m	45	50	5.0		300uZ								TO5	
20	RT5804	600m	4.8m	5.0m	25	7.0											TO5	
21#	TF260	600m	5.0m	5.9m	100	20		300m	5.0u	1.0Z	10mZ	10				ME	TO5	
22#	XT1A	600m	5.9m	5.9m	200	135	5.0	300m	50u			12 Δ					TO5	
23#	XT1B	600m	5.9m	5.9m	300	200	5.0	300m	50u			12 Δ					TO5	
24#	XT1C	600m	5.9m	5.9m	400	265	5.0	300m	50u			12 Δ					TO5	
25#	XT1D	600m	5.9m	5.9m	500	350	5.0	300m	50u			12 Δ					TO5	
26	A1379	600m	20MΔ	4.0m	30	25	5.0	30m	10nZ	5.0Z	100uZ	100	1.0uZb	32 Z	20mZ	15pZ	PL	TO18
27	A1380	600m	20MΔ	4.0m	30	25	5.0	30m	10nZ	5.0Z	100uZ	300	1.0uZb	32 Z	20mZ	15pZ	PL	TO18
28	PT887	600m	30.M	4.0m	50	45	5.0	500m	300u			80 Z					TO5	
29	PT888	600m	30.M	4.0m	50	45	5.0	500m	300u			80 Z					TO5	
30	PT897	600m	30.M	4.0m	45	50	5.0	500m	300u			80 Z					TO5	
31#	ZT1420	600m	30.MΔ		60		5.0					300					TO5	
32#	FT004	600m	50MΔ	2.8m	50	30	6.0		100u	1.0Z	6.0mZ	45 Δ	2.5kZ	5.0 Z		ME	TO5	
33#	ST1601	600m	50MΔ		40	20	5.0		50nZ	10Z	150mZ	30 t#Δ				PE	TO5	
34#	ST1611	600m	50MΔ		40	20	5.0		50nZ	10Z	150mZ	20 t#Δ				PE	TO5	
35#	ST1621	600m	50MΔ		40	20	5.0		50nZ	10Z	150mZ	40 t#Δ				PE	TO5	
36#	ST1631	600m	50MΔ		40	20	5.0		50nZ	10Z	150mZ	20 t#Δ				PE	TO5	
37#	ST178	600m	50MΔ	4.0m	75	75	5.0		50nZ	10Z	50mZ	75 t#Δ				PE	TO5	
38	TRS100A	600m	50MΔ	4.0m	100	100	5.0		3.0uZ	4.0Z	50mZ	30 t#Δ				PE	TO5	
39	USAF511ES035P	600m	50MΔ	13m	80	70	5.2	1.0	10u	10Z	2.0mΔ	40 tΔ#				PL	TO39	
40	USAF511ES036P	600m	50MΔ	13m	80	70	5.2	1.0	10u	10Z	2.0mΔ	40 tΔ#				PL	TO39	
41	2N1941	600m	60MΔ	4.0m	45	30	5.0	1	2.0uZ	6.0Z	1.0m	40 Δ				ME	TO5	
42#	FT001	600m	60.M	4.8m	50	30	6.0	300m	100u	15Z	6.0mZ	35	50u	650		ME	TO5	
43#	FT002	600m	60.M	4.8m	50	30	6.0	300m	100u	15Z	6.0mZ	70	50u	650		ME	TO5	
44#	SDD420	600m	60.M	4.8m	50	30	6.0	300m	100u	15Z	6.0mZ	60	50u	650		ME	TO5	
45#	ST150	600m	60MΔ		60	40	5.0		10nZ	10Z	150mZ	20 t#Δ				PE	TO5	
46#	ST152	600m	60MΔ		60	25	5.0		10nZ	10Z	150mZ	20 t#Δ				PE	TO5	
47#	ST153	600m	60MΔ		60	15	5.0		10nZ	10Z	150mZ	20 t#Δ				PE	TO5	
48#	ST154	600m	60MΔ		40	30	5.0		10nZ	10Z	150mZ	20 t#Δ				PE	TO5	
49#	ST155	600m	60MΔ		40	25	5.0		10nZ	10Z	150mZ	20 t#Δ				PE	TO5	
50#	ST156	600m	60MΔ		40	20	5.0		10nZ	10Z	150mZ	20 t#Δ				PE	TO5	
51#	ST157	600m	60MΔ		40	15	5.0		10nZ	10Z	150mZ	20 t#Δ				PE	TO5	
52#	2SC19	600m	70MΔ	4.0m	40	30	5.0	400m	1.0uZ	10Z	150mZ	50 t				ME	TO5	
53#	2SC20	600m	70MΔ	4.8m	40	40	3.0	400m	1.0uZ	10Z	10m	50				ME	TO5	
54#	FT004A	600m	70MΔ	5.0m	50	30	6.0	100m	100u	15Z	6.0mZ	80 Δ	70u	1.5k		ME	TO5	
55#	SDD1220	600m	70.M	4.8m	50	30	6.0	75m	100u	15Z	6.0mZ	60	120u	600		ME	TO5	
56	2N3450T	600m	100MΔ	4.5m	120	60	7.0	800m	200nZ	1.0Z	150mZ	40 t#Δ				D	TO5	
57#	BFY151	600m	100M	4.7m	40	20	6.0	500m	1.0uZ	9.0Z	20mZ	30 t#Δ				ME	TO5	
58#	FT003	600m	100M	4.8m	50	30	6.0	100m	100u	15Z	6.0mZ	35	70u	400		ME	TO5	
59	2N1644A	600m	150M	4.0m	60	50	5.0		1.0u	10	15m	75 t				ME	TO5	
60#	BFY161	600m	150M	4.7m	40	20	6.0	500m	1.0uZ	9.0Z	20mZ	42 Δ				ME	TO5	
61	HT102	600m	150M		20		5.0		5.0uZ	10	50mZ	6.0 Δ				ME	TO5	
62	HT103	600m	150M		20		3.0		5.0uZ	10	50mZ	6.0 Δ				ME	TO5	
63	PMT213	600m	150M	4.0m	60	40	5.0		1.0uZ	10Z	150mZ	80 t#				ME	TO5	
64	PMT214	600m	150M	4.0m	60	40	5.0		1.0uZ	10Z	150mZ	80 t#				ME	TO5	
65	RT482	600m	150M	5.0m	20		5.0		2.0uZ	10Z	30mZ	20 Δ				PL	TO5	
66	RT483	600m	150M	5.0m	40		5.0		2.0uZ	10Z	150mZ	40 t				PL	TO5	
67	RT484	600m	150M	5.0m	40		5.0		2.0uZ	10Z	150mZ	80 t				PL	TO5	
68	RT5151	600m	150M	5.0m	45	20	4.0		1.0uZ	10Z	150mZ	60 t	3.0ub	10 Z	5.0 Z	20p	ME	TO5
69	RT5152	600m	150M	5.0m	45	20	4.0		1.0uZ	10Z	150mZ	60 t	3.0ub	10 Z	5.0 Z	20p	ME	TO5
70	RT5203	600m	150M	5.0m	40		5.0		2.0u							ME	TO5	
71	RT5204	600m	150M	5.0m	30	30	5.0		1.0uZ	10Z	10mZ	70 t	200nb	26	.50	18p	ME	TO5
72	RT5212	600m	150M	5.0m	60	60	5.0		1.0uZ	10Z	10mZ	70 t	200nb	26	.50	18p	ME	TO5
73#	SDD820	600m	150M	4.8m	50	30	6.0	100m	2.0uZ	15Z	6.0mZ	60	100u	700		D	TO5	
74	PMT215	600m	175M	5.3m	80	50	8.0		5.0uZ	10	50mZ	9.0				ME	TO5	
75	2N2094	600m	200MΔ		60	40	5.0		.02u		1.0mZ	25 t				PE	TO5	
76	2N2094A	600m	200MΔ		60	60	5.0		.01u		1.0mZ	40 t				PE	TO5	
77	2N2095A	600m	200MΔ		60	60	5.0		.01u		1.0mZ	100 t				PE	TO5	
78	2N2818	600m	200MΔ	3.4m	60	40	7.0	750m	250nZ	10Z	10mZ	30 Δ				PE	TO5	
79#	BFY25	600m	200MΔ	4.5m	60	40	6.0	200m	.01uZ	10Z	10mZ	30 t#Δ				PE	TO5	
80	NS1355	600m	200M	3.4m	70	40	5.0	1	.10u	10Z	15mZ	30 tΔ				PL	TO5	
81	NS1960	600m	200M	3.4m	80	60	8.0	100m	5nZ	5.0Z	1.0m	80 tΔ	70u	2.5k	1.0	4.0p	PE	TO18
82#	ST175	600m	200MΔ		75	75	5.0		50nZ	10Z	50mZ	20 t#Δ				PE	TO5	
83#	ST176	600m	200MΔ		75	75	5.0		50nZ	10Z	50mZ	40 t#Δ				PE	TO5	
84#	ST177	600m	200MΔ		75	75	5.0		50nZ	10Z	50mZ	40 t#Δ				PE	TO5	
85#	ST180	600m	200MΔ		90	75	5.0		50nZ	10Z	50mZ	20 t#Δ				PL	TO5	
86#	ST181	600m	200MΔ		90	75	5.0		50nZ	10Z	50mZ	40 t#Δ				PL	TO5	
87#	ST182																	

5. SILICON NPN - LOW POWER TRANSISTORS

IN ORDER OF (1) MAX COLLECTOR DISSIPATION
(2) fab & (3) TYPE No.

LINE No.	TYPE No.	MAX. COLL. DISS. @25°C (W)	DERATE IN FREE AIR W/C (Hz)	ABS MAX RATINGS @25°C				MAX. icbo @MAX Vcb (A)	TYPICAL 'h' PARAMETERS						Cob (F)	DESCRIPTION	L C O E A D E					
				VEbo (V)	VCeo (V)	IC (A)	hfe		BIAS (V)	le (A)	COMMON EMITTER (mhos)	hie (Ω)	hre (X.0001)									
1	RT5413	700m	40M	4.0M	▼J	400	10	10u	20	10m	40	†		6.0p	ME	T05						
2	RT5401	700m	100M	4.0M	▼S	30	20	7.0	750	1.0u	100		1.8ub	2.0	5.0	19p	PLΔ	T05				
3	RT5402	700m	100M	4.0M	▼S	30	25	7.0	750	1.0u	100		1.8ub	2.0	5.0	19p	PLΔ	T05				
4	RT5403	700m	100M	4.0M	▼S	60	30	7.0	750m	1.0u	100		1.8ub	2.0	5.0	19p	PLΔ	T05				
5	RT5404	700m	100M	4.0M	▼S	60	30	7.0	750m	1.0u	100		1.8ub	2.0	5.0	19p	PLΔ	T05				
6	2N347	750m	3.0M		▼J	60		1.0	60m	5.0u	5.0						G					
7	2N348	750m	3.0M		▼J	90		1.0	50m	6.0u	5.0						G					
8	2N349	750m	3.0M		▼J	125		1.0	40m	8.0u	5.0						G					
9#	2SC1141	750m	80M	5.9m	▼J						2.0					18p			T05			
10#	2SC1121	750m	180M	8.3m	▼J						2.0					7.0p			T05			
11#	2SC1131	750m	180M	8.3m	▼J						2.0					7.0p			T05			
12#	2SC32A	750m	200M		▼J	60	25	5.0	200m	10u	100					4.0p	PE		T05			
13#	2SC110	750m	240M			40		5.0	300m	10u	2.0					6.0p			T05			
14#	2SC111	750m	240M			50		5.0	300m	10u	2.0					6.0p			T05			
15#	2SC153	750m	350M			120		4.0	100m	1.0u	1.0								T05			
16	2N1923	750m	90G	5.8m	▼J	85	85	1.0	80m	1.0u	100		5.0m	4.0	†Δ	2.0u	30	3.0	15p	PL	T011	
17	2N1105	800m		4.5m	▼S	60	60	8.0	500m	10u	100		200m	12	†#	500				T043		
18	2N1106	800m		4.5m	▼S	100	100	8.0	500m	10u	100		200m	12	†#	500				T043		
19	2N1508	800m		5.3m	▼J	100		5.0	1	30u	3.6		600m	20	†Δ							
20	2N1509	800m		5.3m	▼J	60		5.0	1	30u	3.6		600m	20	†Δ							
21	2N2886	800m		4.5m	▼J	50	40	5.0	500m	10u	1.5		5.0m	22	†Δ						T05	
22	11B1260	800m		4.5m	▼J	100	60	7.0			1.0		150m	80	†Δ	1.0u	2b	8.0	4.0	15p	PL	T05
23	CDQ10049	800m		4.5m	▼J	130	120	5.0			1.0		6.0m	60	†#						T05	
24	2N1252A1	800m	40M	4.5m	▼J	60	30	5.0	1.0	1.0u	100		150m	15	†#						A0	
25	2N3526	800m	40M	4.5m	▼J	130	120	5.0		1.0u	100		30m	30	†#Δ						T05	
26#	CP403	800m	45M	4.5m	▼J	40	40	5.0		5.0u	5.0		2	75	†#						A0	
27	2N1253A1	800m	50M	4.5m	▼J	60	30	5.0	1.0	1.0u	100		150m	30	†Δ						A0	
28	11B1258	800m	50M	4.5m	▼J	120	80	7.0		10n	100		150m	40	†Δ	500n	2b	30	1.3	15p	PL	T05
29	11C1536	800m	50M	4.5m	▼J	50	30	6.0	1	.05u	100		150m	80	†#						T05	
30	11B1257	800m	60M	4.5m	▼J	75	50	7.0		0.1u	100		150m	40	†Δ						T05	
31#	BFW67	800m	60M	4.5m	▼J	300	300	8.0	400m	1.0u	100		100m	110	†						T039	
32	CDQ10046	800m	60M	4.5m	▼J	75	50	7.0		10n	5.0		1.0	120		130nb	26	750m	14p	PL	T05	
33	CDQ10047	800m	60M	4.5m	▼J	120	80	7.0		10n	5.0		1.0	120		130nb	26	750m	15p	PL	T05	
34	PT4800	800m	70M	4.5m	▼J	55	25	4.0	500m	100u	100		150m	30	†#Δ						T05	
35	RT1210	800m	80M	4.5m	▼J	200	200	8.0		250n	100		30m	60	†						0	
36	SE7010	800m	86M	4.5m	▼J	150	150	6.0		0.1u	100		25m	20	†Δ						T05	
37	RT1890M	800m	96M	4.5m	▼J	100	60	7.0		0.1u	100		150m	130	†#	16.u	3.5k	4.6	15p	PL	T046	
38#	2SC95	800m	100M	6.7m	▼J	140	100	5.0	100m	1.0u	100		10m	50								T05
39	RT11151	800m	100M	4.5m	▼J	120	80	7.0		20n	1.00		150m	40	†Δ						0	
40	ST6573	800m	100M	4.5m	▼J	60	30	5.0		50n	100		150m	20	†Δ						T05	
41	ST6574	800m	100M	4.5m	▼J	60	30	5.0		50n	100		150m	100	†#						T05	
42	CDQ10048	800m	120M	4.5m	▼J	100		5.0		50m	100		50m	60	†#							T05
43	D11C1536	800m	130M	4.5m	▼A	30	25	6.0		25u	100		150m	40	†Δ						T05	
44	PMT211	800m	130M	6.7m	▼J	30	25	4.0	500m	10u	100		150m	15	†Δ						T051	
45	PMT212	800m	130M	1.7m	▼J	45	30	4.0	500m	10u	15		100m	6.5							T051	
46	2N1837B1	800m	140M	4.5m	▼J	80	30	8.0	500m	10n	100		150m	40	†#Δ						0	
47#	2SC15-1	800m	150M		▼A	60		5.0	50m	1.0u	200		10m	60	†	35ub					T05	
48#	2SC15-2	800m	150M		▼A	60		5.0	50m	1.0u	200		10m	60	†	35ub					T05	
49#	2SC15-3	800m	150M		▼A	60		5.0	50m	1.0u	200		10m	60	†	35ub					T05	
50	ST6601	800m	150M	4.5m	▼J	50	30	5.0		50n	100		150m	40	†Δ						A0	
51	NS1356	800m	200M	1.1m	▼J	70	40	5.0		10u	100		15m	30	†Δ						T05	
52	NS21011	800m	200M		▼J	80	60	5.0		100n	100		500m	80	†#						T05	
53	2N39811	800m	250M	4.5m	▼J	60	30	5.0	1.0	300n	1.00		150m	30	†Δ						T05	
54	2N39821	800m	250M	4.5m	▼J	50	20	5.0	1.0	300n	1.00		150m	40	†Δ						T05	
55#	2SC580	800m	250M	6.25u	▼J	60	30	5.0	1.0	1.0u	100		50m	80							T05	
56	PT4830	800m	250M	5.3m	▼J	60	30	4.0		.05u	100		10m	40	†Δ						T018	
57	TA26261	800m	250M	4.5m	▼J	75	50	5.0		10u	1.00		100m	30	†Δ						T05	
58	TA2750	800m	250M	4.5m	▼J	60	40	5.0		100u	1.00		100m	30	†Δ						0	
59	D11E4041	800m	300M	4.5m	▼J	80	60	5.0		.50u	1.00		100m	40	†#						A	
60	D11E4051	800m	300M	4.7m	▼J	80	60	5.0	1.0	.10n					†#						A	
61	D11E4061	800m	300M	4.5m	▼J	100	80	5.0	1.0	.50u	1.00		100m	40	†#						A	
62	D11E4071	800m	300M	4.7m	▼J	110	80	5.0	1.0	.10n					†#						A	
63	2N3123	800m	400M	5.2m	▼J	60	30	5.0	800m	10n	100		150m	100	†#Δ						0	
64#	BFX14	800m	530M	4.5m	▼J	25	15	4.0	300m	.50u	100		100m	50	†#						T05	
65	MM1945	800m	600M		▼J	40		3.0		.50u											T018	
66	2N841/KVT	880m	40M	5.0m	▼J	45	45	2.0	50m	1.0u	5.00		1.0m	140		350nb	40	2.0	8.0p	ME	X30	
67	2N709/KVT	880m	800M	5.0m	▼J	15	6.0	4.0		.05u	5.00		10m	55	†						X30	
68	2N2784/KVT	880m	1.0G	5.0m	▼J	15	6.0	4.0	500m	5n	5.00		10m	120	†						X30	
69	2N3633/KVT	880m	1.3G	5.0m	▼J	15	6.0	4.0	50m	5n	5.00		10m	150	†						X30	
70	D288	950m	100u		▼J	150		150	100m	.10u	100		2.0m	250							X51	
71	CDQ10011	1.0		7.6m	▼J	55	55	1.0	60m	1.0u	10		5.0m	50		10u	4.0k	1.0	5.0p	PL	T05	
72	CDQ10012	1.0		7.6m	▼J	85	85	1.0	60m	1.0u	10		5.0m	50		2.0u	30	3.0	3.0	30p	PL	T05
73	CDQ10014	1.0		7.6m	▼J	60	60	1.0	60m	1.0u	10		5.0m	20		2.0u	30	3.0	3.0	20p	PL	T05
74	CDQ10033	1.0			▼S	85		3.0		1.0u	10		1.0m	53		2.0ub	25	3.0	20p	PL	T05	
75	CDQ10034	1.0			▼S	125		3.0		1.0u	10		1.0m	53		200nb	25	3.0	20p	PL	T05	
76	CDQ10037	1.0		7.6m	▼J	85		1.0	60m	1.0u	10		5.0m	20		2.0ub	25	3.0	20p	PL	T05	
77	ST4341	1.0			▼J	80		5.0	150m	100u	5.0		3.0m	15	Δ						T05	
78	CDQ10044	1.0	6.0M	7.6m	▼J	85		2.0	60m	50u	10		5.0m	20		2.0ub	25	300m	20p	PL	T05	
79	CDQ10045	1.0																				

6. SILICON FIELD EFFECT TRANSISTORS - P CHANNEL

IN ORDER OF (1) DISSIPATION
(2) TYPE No.

LINE No.	TYPE No.	1 MAX. DEVICE @25°C (W)	MAX. Vp & Vds (V)		ABS MAX RATINGS@25°C (V) (A)		MAX. Id(ON)@ Vgs=0 & Vds>Vp (A)		MAX. Igss@ Vgs>Vp & Vds=0 (A)		TEST COND Vgs (V) Vds (V)		PARAMETERS @25°C COMMON SOURCE			DERATE IN FREE AIR W/°C		DESCRIPTION		L C E O D E		
			Id=0 (V)	Vds (V)	Vdss (V)	BVgss (V)	Id (A)	Ig (A)	Vgs (V)	Vds (V)	gfs (mhos)	Yos (mhos)	Rds (Ω)	MAX. Cis (F)	MAX. TEMP (°C)	STRUC-TURE	DWG. No.					
			MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX						
1	MEM519																					
2	UC41	10m	2.5	20	30	40																
3	UC43	10m	2.5	20	30	30Δ																
4	UC40	30m	5.0	20	30	30Δ																
5	UC42	30m	5.0	20	30	30																
6#	3UT80	100m	8.0	10	25		10m															
7	TIXM12	100m	3.5	8.0Δ	20	20																
8	VI1010	112m	6.0Δ	*	50	40	25m	100u	25m	10n	1.0n	5.0p	8.0	5.0m	20m	50n	9.0p#	1.3m	125J	Ge	R110b	DB
9	K1501	150m	7.0Δ	10	15	50	35m															
10	K1502	150m	7.0Δ	10	15	50	35m															
11	K1504	150m	8.0Δ	10	15	50	35m															
12	TIXM301	150m	8.0Δ	10	20	20		10m	25m	6.0p	5.0p	8.0	6.5m	20m	20u		1.0pΔ	2.0m	125	GeE	T072	DR
13	2N3882	200m	3.0Δ	*	30				1.0m	20n	1.0p			1.0mΔ								
14	MT01	200m	6.2Δ	*	40	25			2.0n		1.0p			650u	890uΔ							
15	RN1020	200m	3.0Δ	15*	25				25n	100p	1.0p	15	1.0m	2.4m								
16	RN1030	200m	3.0Δ	5.0*	25				1.5n	100p	5.0	.50	1.0m	2.0mΔ								
17	RN1030A	200m	2.2Δ	5.0*	24				1.0n	100p	5.0	.50	1.0m	2.0mΔ								
18	RN3020	200m	3.0Δ	15*	25				5.0n	100p	1.0p	15	1.0m	2.4m								
19	RN3020R	200m	3.0Δ	15*	25				5.0n	100p	1.0p	15	1.0m	2.4m								
20	RN3030	200m	3.0Δ	5.0*	15				5.0n	100p	5.0	.50	1.0m	2.0mΔ								
21	RN3030R	200m	3.0Δ	5.0*	15				5.0n	100p	5.0	.50	1.0m	2.0mΔ								
22	DP1001▼	250m	4.0	10Δ	30		10m	7.0m	250p	0.0	10	1.0m	3.5m	60u			16p	2.0m	150S	§	T071	
23	DP1002▼	250m	4.0	10Δ	30		10m	7.0m	250p	0.0	10	1.0m	3.5m	60u			16p	2.0m	150S	§	T071	
24	DP1003▼	250m	4.0	10Δ	30		10m	7.0m	250p	0.0	10	1.0m	3.5m	60u			16p	2.0m	150S	§	T071	
25	DP1004▼	250m	4.0	10Δ	30		10m	7.0m	250p	0.0	10	1.0m	3.5m	60u			16p	2.0m	150S	§	T071	
26	DP1005▼	250m	4.0	10Δ	30		10m	7.0m	250p	0.0	10	1.0m	3.5m	60u			16p	2.0m	150S	§	T071	
27	DP1006▼	250m	4.0	10Δ	30		10m	5.0m	250p	0.0	10	500u	3.0m	60u			16p	2.0m	150S	§	T071	
28	DP1007▼	250m	4.0	10Δ	30		10m	5.0m	250p	0.0	10	500u	3.0m	60u			16p	2.0m	150S	§	T071	
29	DP1008▼	250m	4.0	10Δ	30		10m	5.0m	250p	0.0	10	500u	3.0m	60u			16p	2.0m	150S	§	T071	
30	DP1009▼	250m	4.0	10Δ	30		10m	5.0m	250p	0.0	10	500u	3.0m	60u			16p	2.0m	150S	§	T071	
31	DP1010▼	250m	5.0	10Δ	30		10m	5.0m	250p	0.0	10	500u	3.0m	60u			16p	2.0m	150S	§	T071	
32	3N96	300m	4.0	5.0	30		50m	10m	2.5m	5.0n	0.0	5.0	450u	1.3m			4.0p#%	2.0m	175A		L24a	
33	3N97	300m	4.0	5.0	30		50m	10m	2.5m	5.0n	0.0	5.0	450u	1.3m			4.0p#%	2.0m	175A		L24a	
34	FN1024	300m	3.0Δ	15	30	20			1.0n	1.0	15	1.0m	2.4m			80k						
35	FN1034	300m	3.0Δ	5.0	15	12			1.0n	1.0	5.0	1.0m	2.4m			50k						
36	MM2103	300m	5.0Δ	*	25	75	30m		3.0mΔ	10p				1.0m			2.0p					
37	P1003	300m	3.0	10	50Δ				6.0m	3.0n	0.0	10	1.0m	3.5m			20p					
38	P1004	300m	5.0	10					20	3.0n	0.0	10	2.5m	6.0m			20p%					
39	TIXS11	300m	3.0Δ	20*	30	30			10uΔ	3.0p			800u			1.0k	8.0p	2.0m	200			
40	U890	300m	6.0	10	20		50m		5.0mΔ	10n	0.0	10		1.2mΔ								
41	UC300	300m	5.0	20	30			50m	3.8m	100p	0.0	20	1.0m			1.2k	5.0p%					
42	UC305	300m	5.0	20	30			50m	3.8m	100p	0.0	20	1.0m			1.2k	5.0p%					
43	UC310	300m	3.0	20	30			50m	1.5m	100p	0.0	20	750u			1.6k	5.0p%					
44	UC315	300m	3.0	20	30			50m	1.5m	100p	0.0	20	750u			1.6k	5.0p%					
45	UC320	300m	1.7	20	30			50m	600u	100p	0.0	20	300u			2.4k	5.0p%					
46	UC325	300m	1.7	20	30			50m	600u	100p	0.0	20	300u			2.4k	5.0p%					
47	UC330	300m	1.2	20	30Δ			50m	250u	100p	0.0	20	250u			4.8k	5.0p#	1.7m	200J	PL	T072	DD
48	UC335	300m	1.2	20	30			50m	250u	100p	0.0	20	250u			4.8k	5.0p%					
49	UC340	300m	4.0	5.0	50			50m	1.5m	1.0n	0.0	5.0	330u				10p					
50	UC801	300m	6.0	20	25				1.5m	200p	0.0	20	75u	750u			3.0p#					
51	UC803	300m	6.0	20	25				5.0m	500p	0.0	20	250u	2.5m			6.0p#					
52	UC804	300m	8.0	20	25				12m#	500p	0.0	20	500u	5.0m			8.0p#					
53	UC850	300m	6.0	15	20				1.0m	2.0n	0.0	15	110u				6.0p#					
54	UC852	300m	6.0	20	25				30u#	2.0p	0.0	20	60u			6.0p						
55	UC853	300m	6.0	20	25				70u#	4.0p	0.0	20	180u			10p						
56	UC854	300m	6.0	20	25				200u#	15n	0.0	20	540u				17p#					
57	UC855	300m	6.0	20	25				440u#	25n	0.0	20	1.4m				25p#					
58	HA2000	350m	5.0Δ	*	30																	
59	HA2001	350m	6.0Δ	*	35																	
60	HA2010	350m	5.0Δ	*	35																	
61	HA2020	350m	4.0Δ	*	35																	
62	RM5008D	400m	3.0Δ	5.0*	15					100p	10					330						
63	RM8007D	400m	3.0Δ	5.0*	15					100p	10					400						
64	UC450	500m	10	20	25				75mΔ	250p			10m			60	25p					
65	UC451	500m	6.0	20	25				375mΔ	250p			6.0m			150	25p					
66	VI1023	900m	6.0Δ	*	30		50m	100u	6.0m	1.0n	10	10	2.5mΔ			150 Δ	6.0p	9.0m	125J	PL	T018	DA

7. SILICON FIELD EFFECT TRANSISTORS - N CHANNEL

IN ORDER OF (1) DISSIPATION
(2) TYPE No.

LINE No.	TYPE No.	1 MAX. DEVICE DISS @ 25°C (W)	MAX. Vp @ Id=0 (V)	MAX. Vds (V)	ABS MAX RATINGS @ 25°C		MAX. Id(ON) @ Vgs=0 & Vds>Vp (A)	MAX. Igss @ Vgs>Vp & Vds=0 (A)	PARAMETERS @ 25°C				Rds (Ω)	MAX. Cis (F)	DERATE IN FREE AIR W/C (°C)	DESCRIPTION STRUCTURE	DWG. No.	L C E O A D E		
					BVdss (V)	BVgss (V)			TEST COND		COMMON SOURCE								Yos (mhos)	Rds (Ω)
					Vgs (V)	Vds (V)			Vgs (V)	Vds (V)	gfs (mhos)	Yos (mhos)								
1	MF100		5.0	20																
2	MF101		8.0	20																
3	UC754		4.0	20	30															
4	UC21	20m	2.5	20	30			5.0m	1.0n	0.0	20	1.0m	1.5m							
5	UC23	20m	2.5	20	30			800uΔ	50p			1.0m								
6	DFNA3-100v	50m	4.0	15	50Δ			800u	10p	0.0	15	200u			6.0p#	200		PL∅		
7	UC20	60m	5.0	20	30			2.5mΔ	1.0n			750u	2.0m					PE		
8	UC22	60m	5.0	20	30			2.0mΔ	50p			300u			2.0p	200		PE		
9	K1201	75m	5.0	10	50	15m		5.0m	10p	0.0	10				7.0k			PE		
10	K1202	75m	5.0	10	50	15m		5.0m		0.0	10	1.0m	2.0mΔ		7.0k			*		
11#	3U707	100m	1.0Δ	25	15Δ	15Δ		5.0m		0.0	10	1.0m	2.0mΔ		7.0k			*		
12	FF400+	105m	7.0	10Δ	15Δ	15Δ	50m	6.0m	.01n	1.0n	0.0	10	1.5m			8.0p†	1.7m	EA		
13	3N98	150m†	6.0†	12	32	2.0	15m	7.7m	.05n	0.0	12	1.0m	3.0m	250u%		7.0p#	85			
14	3N99	150m†	6.0†	12	32	2.0	15m	11m	.05n	0.0	12	1.0m	4.0m	300u%		7.0p#	85			
15	40460∅	150m		Δ	25	10		9.0m	10p	0.0	12	3.5 Δ			90 †	5.0p#	1.5m	*		
16	A194	150m	4.0†	15Δ	25	25	15m	8.0m	.50n	0.0	15	2.0m	8.0m	20u		5.0p#	1.0m	PE#		
17	A195	150m	4.0†	15Δ	25	25	15m	5.0m	.50n	0.0	15	1.0m	6.0m	20u		5.0p#	1.0m	PE#		
18	A196	150m	4.0†	15Δ	25	25	15m	5.0m	.50n	0.0	15	4.0m	10m	20u		5.0p#	1.0m	PE#		
19#	BSV38A†	150mΔ	10†	15	25	25	150m	10m	50m#	250p					25	18p#	1.2m	PE†		
20	K1001	150m	6.0	10	15	50	40m	12m		0.0	10	1.0m	2.4mΔ		10k	3.0p†	100J	*		
21	K1002	150m	6.0	10	15	50	40m	5.0m		0.0	10	1.0m	1.5mΔ		10k	3.0p†	100J	*		
22	K1003	150m	6.0	10	15	50	40m	20m		0.0	10	5.0mΔ	4.0m		500 †			*		
23	K1004	150m	12	10	15	50	40m	7.0m		0.0	10	800u	1.6mΔ		10k	2.0p†	100J	*		
24#	3UT100	200m		20	20		30m			5.0∅	10	2.5m%				3.5p#	150J	PE		
25	A197†	200m	10†	20Δ	30	30	50m	150mΔ	.50n						.03k%	16p	1.6m	PE#†		
26	A198†	200m	5.0†	20Δ	30	30	50m	75mΔ	.50n						.06k%	16p	1.6m	PE#†		
27	A199†	200m	3.0†	20Δ	30	30	50m	30mΔ	.50n						1.0k%	16p	1.6m	PE#†		
28	MPF103	200m	6.0†	15	25	25	16m	10m	5.0m	1.0n	0.0	15	1.0m	5.0m	50u		7.0p	2.0m	125J	
29	MPF104	200m	7.0†	15	25	25	16m	10m	9.0m	1.0n	0.0	15	1.5m	5.5m	50u		7.0p	2.0m	125J	
30	MPF105	200m	8.0†	15	25	25	16m	10m	18m	1.0n	0.0	15	2.0m	6.0m	50u		7.0p	2.0m	125J	
31	DFNA3-50v	250m	4.0	15	50Δ			2.5mΔ	1.0n	0.0	15	750u	2.0m			6.0p#	2.3m	150J		
32	MM2102	300m	4.0Δ	*	25	75	30	10uΔ	10p			1.0m			200	4.5p			PE	
33#	Ph241N†	300m	1.0	0.0	30			10m	3.0m	.20n	0.0	15	2.0m	7.0m		13p			PE	
34#	Ph242N†	300m	1.5	0.0	30			10m	6.0m	.20n	0.0	15	3.5m	7.5m		13p			PE	
35#	Ph243N†	300m	2.5	0.0	30			10m	15m%	.20n	0.0	15	5.0m	10m%		13p			PE	
36#	Ph244N†	300m	3.0	0.0	30			10m	30m%	.20n	0.0	15	8.0m	15m%		13p			PE	
37	u89∅	300m	6.0	10	20		50m	5.0mΔ	10n	0.0	10		1.2mΔ			6.0p#	2.0m	150S		
38	u205v	300m	4.0	20	50			50m	7.0m	25p	0.0	20	1.0m	4.0m		6.0p#	1.7m	200S		
39	u206v	300m	4.0	20	50			50m	7.0m	25p	0.0	20	1.0m	4.0m		6.0p#	1.7m	200S		
40	u207v	300m	4.0	20	50			50m	7.0m	25p	0.0	20	1.0m	4.0m		6.0p#	1.7m	200S		
41	U205v	300m	4.0	20	50			50m	7.0m	.02n	0.0	20	1.0m	4.0m		6p#	1.7m	200S		
42	U206v	300m	4.0	20	50			50m	7.0m	.02n	0.0	20	1.0m	4.0m		6p#	1.7m	200S		
43	U207v	300m	4.0	20	50			50m	7.0m	.02n	0.0	20	1.0m	4.0m		6.0p#	1.7m	200S		
44	UC100	300m	5.0	20	30			10m	7.5m	100p	0.0	20	2.0m		800 †	5.0p%	200J	PL		
45	UC105	300m	5.0	20	30			10m	7.5m	100p	0.0	20	2.0m		800 †	5.0p%	200J	PL		
46	UC110	300m	3.0	20	30			10m	3.0m	100p	0.0	20	1.5m		800 †	5.0p%	200J	PL		
47	UC115	300m	3.0	20	30			10m	3.0m	100p	0.0	20	1.5m		800 †	5.0p%	200J	PL		
48	UC120	300m	1.7	20	30			10m	1.2m	100p	0.0	20	1.0m		1.2k†	5.0p%	200J	PL		
49	UC125	300m	1.7	20	30			10m	1.2m	100p	0.0	20	1.0m		1.2k†	5.0p%	200J	PL		
50	UC130	300m	1.2	20	30			10m	500u	100p	0.0	20	500u		2.4k†	5.0p%	200J	PL		
51	UC135	300m	1.2	20	30			10m	500u	100p	0.0	20	500u		2.4k†	5.0p%	200J	PL		
52	UC240	300m	5.0	20	50			50m	10m	100p	0.0	20	1.2m			1.8p#	200J	E		
53	UC258	300m	3.0†	15	30				30m	100p	10∅	15	12m	24m	50u		14p#	1.7m	200J	
54	UC701	300m	6.0	15	40				3.0m	200p									PE	
55	UC703	300m	6.0	20	40				10m	500p	0.0	20	500u	5.0m		2.0k†	6.0p#		PE	
56	UC704	300m	8.0	20	40				24m	500p	0.0	20	1.0m	10m		1.0k†	8.0p		PE	
57	UC705	300m	8.0	20	40				50m	1.0n	0.0	20	2.0m	20m		500 †	12p#		PE	
58	UC750	300m	6.0	15	30				2.0n		0.0	20							PE	
59	UC751	300m	6.0	20	30				100u#		0.0	20	350u				10p#		PE	
60	UC752	300m	6.0	20	30				300u#		0.0	20	1.0m				17p#		PE	
61	UC753	300m	6.0	20	30				900u#	10n	0.0	20	2.5m				25p#		PE	
62#	ZFT12	350m	2.4	20	25	25			10nΔ	0.0	20	400u	1.0m					150J	PL\$	
63#	ZFT12A	350m	2.4	20	25	25			30nΔ	0.0	20	400u	1.0m					150J	PL\$	
64#	ZFT14	350m	7.9	20	25	25			10nΔ	0.0	20	900u	2.0m					150J	PL\$	
65#	ZFT14A	350m	7.9	20	25	25			30nΔ	0.0	20	900u	2.0m					150J	PL\$	
66#	ZFT16	350m	5.0%	20	50	10			10m	10n	0.0	20	3.0mΔ			300 †	30p*	150J	PL\$	
67#	ZFT18	350m	5.0%	20	100	10			10m	10n	0.0	20	3.0mΔ			300 †	30p*	150J	PL\$	
68	UC2130∅	500m	5.0	20	50	50		50m	4.5m	100p	0.0	20	1.0m				40u		200J	
69	UC2132∅	500m	5.0	20	50	50		50m	4.5m	100p	0.0	20	1.0m				40u		200J	
70	UC2134∅	500m	5.0	20	50	50		50m	4.5m	100p	0.0	20	1.0m				40u		200J	
71	UC2136∅	500m	5.0	20	50	50		50m	4.5m	100p	0.0	20	1.0m				40u		200J	
72	UC2138∅	500m	5.0	20	50	50		50m	4.5m	100p	0.0	20	1.0m				40u		200J	
73	UC707	600m	12	20	20				250m	2.0n	0.0	20	5.0m	50m		200 †	30p#		PL	
74	u182†	1.8 Δ	10	20			50m	120m								40	20p	10m	200S	
75	U182†	1.8 Δ	10	20			50m	120m								40	20p	10m	200S	
76	RM3036	5.0 Δ			50								1.0 Δ						Δ	

8. GERMANIUM PNP - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	TYPE No.	1 MAX. THERM. RES. J TO C (W)	MAX. FREE AIR @ 25°C (W)	Pc	M A E M P	ABSOLUTE MAX. RATINGS @25°C						MAX. hfe			MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION	L C O D E	
						Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	Icbo @ MAX Vcbo @25°C (A)	BIAS		MAX (Hz)					fae
												Vcb (V)	Ic (A)						
1	2N71		1.0		*A	250m		75		50									
2	2N230		15 ∅		#J	2.0	25	60	30	30	1.5m	4.0∅	50	20	250kt				
3	2N675		1.0		#J	2.0		60				1.5	100	60	12k				
4#	11T1		2.5		#J	1.5		12	6.0				20	700kt		TO26			
5#	12T1		2.5		#J	1.5		24	12			500m	20						
6#	13T1		2.5		#J	1.5		24	12			500m	20	40					
7#	14T1		2.5		#J	1.5		24	12			500m	80	160					
8#	15T1		2.5		#J	1.5		60	30			500m	10	25					
9#	16T1		2.5		#J	1.5		60	30			500m	25	50					
10	82T1		1.2		#J	1.5		30	10			80u	1.0∅	1.0	30	1.0Mt			
11	440C-C		5.0		#S	1.0		50	25			500u∅			30				
12	440C-E		14		#S	1.0		50	25			500u∅			30				
13	441C		15		#S	2.0		50	25			300u∅			60				
14	442C-A		1.5		#S	500m		50	25			100u∅			50				
15	442C-D		3.0		#A	500m		50	25			100u∅			50				
16	CTP1002		2.2		#A	2.5		60				100u			35				
17	CTP1003		2.2		#A	2.5		60				100u			15				
18	CTP1004		2.2		#A	2.5		40				100u			15				
19	CTP1005		2.2		#A	2.5		40				100u			25				
20	CTP1006		2.2		#A	2.5		40				100u			35				
21	CTP1119		25		#J			60				2.0m	12	25	80				
22	GFT26		6.0		TA		2.0	10				6.0	500m		300kt				
23#	GFT2006		6.0 ∅		#J	160		80				6.0	50		300kt				
24#	RT150A		85		#J	160		60	20	40		2.0∅	150 ∅	15					
25#	RT150B		85		#J	160		80	20	40		2.0∅	150 ∅	15			X78 B		
26#	XC121	5.0m			#J			35	12	16		10u∅	1.0	200m	40				
27#	XC161	5.0m			#J			26	6.0	16		7.0u∅	1.0	400m	40				
28#	XCXC121	5.0m			#J			35	12	16		.01m∅	1.0	20	40				
29#	XC131	10m			#J			35	12	16		.01m∅	1.0	20	40				
30#	XC163	15m∅			#J			26	6.0	16		7.0u∅	1.0∅	400m	40				
31#	XC171	15m∅			#J			26	6.0	16		.01m	1.0∅	40	40				
32	2N671	16m∅	1.0		#J	2.0		40	40	40		75u∅	1.5∅	1.0	100 ∅	650kt			
33	2N673	16m∅	1.0		#J	2.0		25	25	25		75u∅							
34	2N1126	16m∅	1.0		#J	250m		40	40			75u	6.0	10m	40	400ktΔ			
35	2N1127	16m∅	1.0		#J	250m		40	40			75u	1.0	500m	100	1.5Mt			
36#	2SB27	20m∅			#J	50		15	10	15		.80m∅	1.5∅	20	18	46	7.0k		
37#	2SB28	20m∅			#J	50		15	10	15		.80m	1.5∅	.20	35	96	7.0k		
38#	2SB29	20m∅			#J	50		15	10	15		.80m	1.5∅	.20	72	186	7.0k		
39#	2SB142	25m∅			#J	1.0		30	12	30		1.0m	1.5∅	1.0	12	31	7.0k		
40#	2SB143	25m∅			#J	1.0		30	12	30		1.0m	1.5∅	1.0	23	59	7.0k		
41#	2SB144	25m∅			#J	1.0		30	12	30		1.0m	1.5∅	1.0	45	119	7.0k		
42#	2SB140	29m∅			#J	1.5		40	12	40		60m	1.5∅	1.0	62	89	7.0k		
43#	2SB141	29m∅			#J	1.5		60	12	60		.80m	1.5∅	1.0	62	89	7.0k		
44#	2SB147	29m∅			#J	1.5		60	12	60		.60m∅	1.5∅	20	28	119	7.0k		
45	2N528	33m	1.0		#J	1.0	500m	40	40			500u	1.0∅	500m	20	47 ∅	8.0M\$		
46	JAN2N528	33m	1.0		#S	1.0	500m	40	40	#		50u	1.0∅	500m	20	47 ∅	8.0M\$		
47	2N1940	40m	3.5 ∅		#S	250m		30	10	15		5.0u∅	7.5∅	40m	5.0		500m		
48	GA53242	41m∅			#J	500m	100m	40	40	40		45u	1.0∅	200m	45	133	6.8Mt		
49#	2SA231	44m∅			#J	400m		40	12			50u	6.0	70m	30	110	2.5k		
50#	2SA232	44m∅			#J	400m		30	12			50u	6.0	70m	30	175	4.0k		
51#	2SB81	44m∅			#J	500m		80	12			50u∅	2.0∅	100m	45	∅	4.0Mt		
52#	2SB82	44m∅			#J	500m		100	12			35u∅	2.0∅	100m	45	∅	4.0Mt		
53	JAN2N1940	45m	3.5 ∅		#J	250mt		30	1.0t			100u	7.5∅	40m	5.0		500m		
54	2N1609	66m	1.0		#J	1.5 ∅	250m	80	40	60		100u	2.0	100m	30	75	17k		
55	2N1610	66m	1.0		#J	1.5 ∅	250m	80	40	60		100u	2.0	100m	50	125	15k		
56#	2SB80	67m∅			#J	1.0		25	10			1.0m	1.5	.50	70	∅	6.0Mt		
57#	2N1013	71m			#J	.75	25	60	30			1.0m	2.0	7.5M	23	60			
58	H3A	71m			#J	.60	.25	60	30			1.0m	2.0	5.0m	10	25			
59	H4A	71m			#J	.75	.25	60	30			1.0m	2.0	7.5m	23	60			
60#	TF77	77m			#J	.60	.16	50	16			.03m	5.0∅	.05	23	∅			
61#	TF77/30	77m			#J	.60		32	10	32		.03m	1.0∅	10	32	∅			
62	2N68	80m			#J	1.5		30	15	15		5.0m	6.0	50m	40		400k†		
63	2N101	80m			#J	1.5		30	15	15		5.0m	6.0	50m	40		400k†		
64	2N141	80m∅			#J	800m		60	30	30		5.0m	6.0	50m	40		400k†		
65	2N143	80m∅			#J	800m		60	30	30		5.0m	6.0	50m	40		400k†		
66#	2SB62	80m			#J	500m		60	12	60		7.0u∅	1.0	500m	30	125	200k†Δ		
67#	2SB63	80m	4.0		#J	500m		32	12	32		7.0u∅	1.0	500m	30	125	200k†Δ		
68#	THP45	83m∅			#J			15				2.0	20	200	200				
69#	THP46	83m∅			#J			15				2.0	20	200	200				
70#	THP47	83m∅			#J			60				2.0	20	200	200				
71	2N1645	86m	1.0		#J	300m		1.0	20			15u∅	10∅	200m	20	35 ∅	600M\$		
72	2N1611	100m	1.0		#J	1.5 ∅	250m	60	20	40		100u	2.0	100m	30	75	17k		
73	2N1612	100m	1.0		#J	1.5 ∅	250m	60	20	40		100u	2.0	100m	50	125	15k		
74	AT202	100m	3.0 ∅		#J	3.0	100	30				20u∅							
75#	NK1301A	100m∅			#J	2.0	20	30	15	30		.05m∅	1.5	1.0	30		1.0Mt		
76#	NK1302A	100m∅			#J	2.0	200m	30	15	30		.05m∅	1.5	1.0	30		1.0Mt		
77#	V15/20IP	100m∅			#J	2.0		15				.50m∅	1.5	.25m	50		1.0Mt		
78#	V30/20IP	100m∅			#J	2.0		30	15	7.0		.05m∅	1.5	.02	20	100	300k†		
79#	V80/20IP	100m∅			#J	2.0		30	15	15		.05m∅	1.5	.02	20	100	300k†		
80	2N2535	133m	1.0		#A	3.0	500m	60	30	30		.05m∅	1.5	.02	20	100	300k†		
81	2N2536	133m	1.0		#A	3.0	500m	80	20	30		250u	2.0∅	400m	40	120	8.0kΔ		
82	2N83	149m			#S	2.0		66	12			1.5∅	.50	8.0		350k†			

8. GERMANIUM PNP - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	TYPE No.	MAX. THERM RES. J to C (W)	MAX. FREE AIR @ 25°C (W)	M A E M P	ABSOLUTE MAX. RATINGS @ 25°C					MAX. I _{cb} @ MAX V _{cb} @ 25°C (A)	BIAS		MAX. I _{ce} (A)	f _{ae} (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION	L C O D E		
					I _c (A)	I _b (A)	V _{cb} (V)	V _{eb} (V)	V _{ceo} (V)		MIN (V)	MAX (V)								
1#	GFT4608/80	250m∅		J	4.0	1.0	60	15	80	50m	2.0	50	60	100	12kt	40	20u	A	MD12	
2#	GFT4608/80	250m∅		J	4.0	1.0	80	15	80	50m	2.0	50	60	100	12kt	40	20u	A	MD12	
3#	SFT113	250m∅		J	3.0	.50	30	10	15	1.0m	2.5∅	2.0	40	∅	300kt	.23		A		
4#	SFT114	250m∅		J	3.0	.50	60	10	30	1.0m	2.5∅	2.0	40	∅	300kt	.23		A		
5#	TF80	250m∅		J	2.5	.16				10m∅	6.0∅	3.0	45	∅				A		
6	2N1042-2t	263m	1.0 #	J	3.0	1.0	40	20	30	65m	1.0∅	3.0	20	60	7.0k	.25		AA	MT28	A∅
7	2N1042-2∅	263m	1.0 #	J	3.0	1.0	40	20	30	65m	1.0∅	3.0	20	60	7.0k	.25		AA	R122	
8	2N1043-2t	263m	1.0 #	J	3.0	1.0	60	20	40	65m	1.0∅	3.0	20	60	7.0k	.25		AA	MT28	A∅
9	2N1043-2∅	263m	1.0 #	J	3.0	1.0	60	20	40	65m	1.0∅	3.0	20	60	7.0k	.25		AA	R122	
10	2N1044-2t	263m	1.0 #	J	3.0	1.0	80	20	50	65m	1.0∅	3.0	20	60	7.0k	.25		AA	MT28	A∅
11	2N1044-2∅	263m	1.0 #	J	3.0	1.0	80	20	50	65m	1.0∅	3.0	20	60	7.0k	.25		AA	R122	
12	2N1045-2t	263m	1.0 #	J	3.0	1.0	100	20	60	65m	1.0∅	3.0	20	60	7.0k	.25		AA	MT28	A∅
13	2N1045-2∅	263m	1.0 #	J	3.0	1.0	100	20	60	65m	1.0∅	3.0	20	60	7.0k	.25		AA	R122	
14#	GFT3008/20	263m∅		J	3.0		20	10	15	50m	2.0∅	50	25	50	350kt	.40	20u	A	MD12	
15#	GFT3008/40	263m∅		J	3.0		40	10	30	50m	2.0∅	50	25	50	350kt	.40	20u	A	MD12	
16#	GFT3008/60	263m∅		J	3.0		60	10	40	50m	2.0∅	50	25	50	350kt	.40	20u	A	MD12	
17#	GFT3408/20	263m∅		J	3.0		20	10	15	500u	2.0∅	500m	40	80	400kt	.400m	20u	A	MD12	
18#	GFT3408/40	263m∅		J	3.0		40	10	30	50m	2.0∅	50	40	80	400kt	.40	20u	A	MD12	
19#	GFT3408/60	263m∅		J	3.0		60	10	40	50m	2.0∅	50	40	80	400kt	.40	20u	A	MD12	
20#	GFT3408320	263m∅		J	3.0		20	10	15	50m	2.0∅	50	40	80	400kt	.40	20u	A	MD12	
21#	GTL3	266m		J	3.0		20	10	15	5.0m	2.0∅	500m	25	50	250			A		
22#	GFT30	270m		J	3.0		30	20	15	1.0m	2.0	64	20		300kt	.50		A		
23#	GFT3008/80	270m∅		J	3.0		80	10	60	50m	2.0∅	50	25	50	350kt	.40	20u	A		
24#	GFT3408/80	270m∅		J	3.0		80	10	60	50m	2.0∅	50	40	80	400kt	.40	20u	A		
25	LT5201	286m		J	1.0		60	30	60	60	6.0∅	25	10							TO13
26	LT5209	286m		J	1.0		30	15	15	10m	1.0∅	50	10							TO13
27	XD5081	286m		J			35			50m	2.0	1.5			48kt	1.0				
28	XD5082	286m		J			35			50m	2.0	1.5			48kt	1.0				
29	2N157	333m∅		J	3.0	.50	60	30	60	1.0m	2.0∅	50	20		100kt	.75		A		TO3
30	2N157A	333m∅		J	3.0	.50	90	30	90	1.0m	2.0∅	50	20		100kt	.75		A		TO3
31	2N352	333m		J	2.0		20	40	40	5.0m∅	1.5∅	1.0	30	140						
32	2N1245	333m		J	4.0	.50	30	15	25	5.0m∅	2.0∅	50	50		125kt					TO3
33	2N1246	333m		J	4.0	.50	30	15	25	5.0m∅	2.0∅	50	150		125kt					TO3
34	2N1504	333m∅	23 ∅	J	3.0	500m	80	30	60	1.0m	2.0∅	500m	21		4.0k	750m				MT12
35#	2T3011	333m		J	3.0		40	12	40	2.0m	1.5∅	1.0	70	103	7.0kt					
36#	2T3021	333m		J	3.0		60	12	60	2.0m	1.5∅	1.0	49	103	7.0kt					
37#	2T3031	333m		J	2.0		30	12	30	3.0m	1.5∅	1.0	20		4.7	7.0kt				
38#	2T3032	333m		J	2.0		30	12	30	3.0m	1.5∅	1.0	32		7.5	7.0kt				
39#	2T3033	333m		J	2.0		30	12	30	3.0m	1.5∅	1.0	51		7.0kt					
40	AT201	333m	10 ∅	J	3.0		200			200u∅										
41	B1914	333m	20 ∅	J	5.0	.50			50 ∅	2.0∅	60	65			.87					TO3
42	CK256	333m∅	20 ∅	J	3.0	500m	30	15	30	1.0m	2.0∅	500m	25	32 ∅	4.0k	750m				TO3
43	CK258	333m∅	20 ∅	J	3.0	500m	60	30	60	1.0m	2.0∅	500m	21		4.0k	750m				MT12
44	CK31	333m∅	20 ∅	J	3.0	500m	80	30	80	1.0m	2.0∅	500m	21		4.0k	750m				MM3
45	CK312	333m∅	20 ∅	J	3.0	500m	100	30	100	1.0m	2.0∅	500m	21		4.0k	750m				MM3
46	CK313	333m∅	20 ∅	J	3.0	500m	120	30	120	1.0m	2.0∅	500m	21		36 ∅	4.0k	750m			MM3
47	CK314	333m∅	20 ∅	J	3.0	500m	150	30	150	1.0m	2.0∅	500m	20		36 ∅	4.0k	750m			MM3
48	CK315	333m∅	20 ∅	J	3.0	500m	200	30		5.0m	2.0∅	500m	21		4.0k	750m				MM3
49	CK411	333m∅	20 ∅	J	3.0	500m	80	30	80	1.0m	2.0∅	500m	21		40 ∅	4.0k	750m			MT12
50	CK412	333m∅	20 ∅	J	3.0	500m	100	30	100	1.0m	2.0∅	500m	21		40 ∅	4.0k	750m			MT12
51	CK413	333m∅	20 ∅	J	3.0	.50	120	30	120	1.0m	2.0∅	50	21		36 ∅	4.0k	750m			MT12
52	CK414	333m∅		J	3.0	.50	150	30	150	1.0m	2.0∅	.50	21		36 ∅	4.0k	750m			MT12
53	CK415	333m∅		J	3.0	.50	200	30		5.0m	2.0∅	.50	21		4.0k	750m				MT12
54#	GTL1	333m		J	3.0		30			30m										
55	LT51	333m		J	3.0	.50	60	30	60	1.0m	2.0∅	50	20		100kt	.75				
56	LT55	333m		J	3.0	.50	60	15	60	1.0m	2.0∅	50	20		100kt	1.0				
57	LT5022	333m		J	3.0	.50	30	15	30	1.5m	2.0∅	50	20		100kt	1.0				TO3
58	LT5025	333m		J	3.0	.50	30	15	30	1.5m	2.0∅	50	40		100kt	1.0				TO3
59	LT5028	333m		J	3.0	.50	30	15	30	1.5m	2.0∅	50	60		100kt	1.0				TO3
60	LT5031	333m		J	3.0	.50	60	15	60	1.5m	2.0∅	50	40		100kt	1.0				TO3
61	LT5034	333m		J	3.0	.50	60	15	60	1.5m	2.0∅	50	60		100kt	1.0				TO3
62	LT5038	333m		J	3.0	.50	100	15	90	2.0m	2.0∅	50	40		100kt	1.0				TO10
63	LT5039	333m		J	3.0	.50	100	15	90	2.0m	2.0∅	50	40		100kt	1.0				TO3
64	LT5042	333m		J	3.0	.50	100	15	90	2.0m	2.0∅	50	60		100kt	1.0				TO3
65	LT5045	333m		J	3.0	.50	120	15	100	2.5m	2.0∅	50	40		100kt	1.0				TO3
66	LT5048	333m∅		J	3.0	.50	120	15	100	2.5m	2.0∅	50	20		100kt	1.0				TO3
67	LT5051	333m		J	3.0	.50	120	15	100	2.5m	2.0∅	50	60		100kt	1.0				TO3
68	LT5515	333m		J	3.0		60	15		1.5m	2.0∅	50	20		100kt	1.0				TO3
69	T1366	333m		J	3.0		60		45	1.0m∅	1.0∅	1.0	50							TO3
70	T1367	333m		J	3.0		45		25	1.0m∅	1.0∅	1.0	50							TO3
71	T1368	333m		J	3.0		45		23	1.0m∅	1.0∅	1.0	50							TO3
72	T1369	333m		J	3.0		30		15	1.0m∅	1.0∅	1.0	30							TO3
73	T1370	333m		J	3.0		30		15	1.0m∅	1.0∅	1.0	30							TO3
74	TS176	333m		J	2.0					1.0m∅	1.2∅	1.0	40	150		.75				
75	2N353	400m		J	3.0				40	5.0m	1.5∅	1.0			.80					
76#	25B25	400m		J	1.5		60	12		2.0m	1.5	1.0	34	110	250kt					TO3
77#	25B28	400m		J	1.5		45	12		16m∅	1.5	1.0	34	110	250kt					TO3
78#	25B26A	400m	20	J	3.0		25	12	45	16m∅	1.5	1.0	34	115						TO3
79#	25B122	400m		J	1.5		80	40		2.0m	1.5	1.0	34	110	250kt					TO3
80#	GFT4012</																			

8. GERMANIUM PNP - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	TYPE No.	1/MAX. THERM. RES. J to C (W)	MAX. FREE AIR @ 25°C (W)	M T A E M P	ABSOLUTE MAX. RATINGS @25°C					hfe			f _{ae} (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION	L C O D E				
					Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	Icbo @ MAX Vcb @25°C (A)	V _{cb} (V)	V _{cb} (A)						MIN	MAX		
1	2N421	500m		#J	5.0	.50	65		45	1.5m	2.0	4.0	40	50	400kt	.50	15u	A			
2	2N1433	500m		#J	3.5	.50	80	28	50	2.0m	2.0	2.0	20	50	200kt	.75		A		TO10	
3	2N1434	500m		#J	3.5	.50	80	28	50	2.0m	2.0	2.0	20	45	115	200kt	.50		A	TO10	
4	2N1435	500m		#J	3.5	.50	80	28	50	2.0m	2.0	2.0	30	75	200kt	.30		A		TO10	
5	2SB64	500m	25 ∅	∅J	6.0		100	1.0	100	330u	1.5	1.0	34	160	1.0M			A		TO3	
6	2SB69	500m	25 ∅	∅J	6.0		60	1.0	60	330u	1.5	1.0	34	160	1.0M			A		TO3	
7	2SB123	500m		∅J	5.0		40	12	40	2.0m	1.5	5.0	50	∅	250kt	.09		A		TO3	
8	2SB149	500m		∅J	8.0		40	30	40	1.0m	1.5	5.0	60	∅	250kt	.50m		A		TO3	
9	2SB231	500m		∅J	6.0	1.0	120	1.0	120	5.0m	1.5	5.0	25	200	1.0M	.06	1.2u	A		TO3	
10	14711	500m		#J	3.0		150	30	40	1.0m	2.0	2.0	20	150	200kt	.130m		AD		TO3	
11	A1392	500m	10	#J	10		155	4.0	150	60m	1.0	10	16							TO3	
12	B113	500m		#J	5.0							4.0									
13	B114	500m		#J	3.0							.75									
14	B121	500m		#J	3.0							.50									
15	B1017	500m		#J	3.0								25 ∅								
16	B10064	500m	10	#J	4.0	1.0			3.0	.50m	2.0	1.0	15			.12		DA		TO41	
17	B10068	500m	10	#J	4.0	1.0			3.0	.50m	2.0	1.0	15			.12		DA		TO41	
18	CTP1104	500m		#J	3.0				40	2.0m	2.0	2.0	10		4.0k			A		MD2	
19	GET571	500m		#J	12	2.0	16	6.0	16	2.0m	5.0	12	8.0	25	350kt	.40		A		MD2	
20	GET572	500m		#J	12	3.0	32	12	32	2.0m	5.0	12	8.0	25	350kt	.40		A		MD2	
21	GET573	500m		#J	12	2.0	64	12	40	2.0m	5.0	12	8.0	25	350kt	.40		A		MD2	
22	GET574	500m		#J	12	2.0	32	12	32	2.0m	2.0	1.0	40	∅	350kt	.40		A		MD2	
23	GET581	500m		#J	6.0		80	40	60	1.0	6.0	15	30					A		TO3	
24	GET582	500m		#J	6.0		80	40	60	1.0	6.0	20	65					A		TO3	
25	GET583	500m		#J	6.0		60	20	32	1.0	6.0	20	45					A		TO3	
26	GET584	500m		#J	6.0		60	20	32	1.0	6.0	35	80					A		TO3	
27	GET585	500m		#J	4.0		40	10	40	1.0	1.0	2.0	12					A		TO13	
28	GET586	500m		#J	3.0		32	10	40	1.0	3.0	15	50					A		TO13	
29	LT5054	500m		#J	4.5	.60	30	15	30	2.0m	2.0	.75	30		100kt	1.0				C	
30	LT5057	500m		#J	4.5	.60	30	15	30	2.0m	2.0	.75	60		100kt	1.0				C	
31	LT5060	500m		#J	4.5	.60	30	15	30	2.0m	2.0	.75	100		100kt	1.0				C	
32	LT5063	500m		#J	4.5	.60	60	15	60	2.0m	2.0	.75	30		100kt	1.0				C	
33	LT5066	500m		#J	4.5	.60	60	15	60	2.0m	2.0	.75	60		100kt	1.0				C	
34	LT5069	500m		#J	4.5	.60	60	15	60	2.0m	2.0	.75	100		100kt	1.0				C	
35	LT5072	500m		#J	4.5	.60	80	15	75	2.5m	2.0	.75	30		100kt	1.0				C	
36	LT5075	500m		#J	4.5	.60	80	15	75	2.5m	2.0	.75	60		100kt	1.0				C	
37	LT5078	500m		#J	4.5	.60	80	15	75	2.5m	2.0	.75	100		100kt	1.0				C	
38	LT5081	500m		#J	4.5	.60	100	15	90	3.0m	2.0	.75	30		100kt	1.0				C	
39	LT5084	500m		#J	4.5	.60	100	15	90	3.0m	2.0	.75	60		100kt	1.0				C	
40	LT5087	500m		#J	4.5	.60	100	15	90	3.0m	2.0	.75	100		100kt	1.0				C	
41	LT5157	500m		#J	4.5		100	15	90	3.0m	2.0	.75	30		100kt	1.0				C	
42	LT5158	500m		#J	4.5		100	15	90	3.0m	2.0	.75	30		100kt	1.0				C	
43	LT5159	500m		#J	4.5		100	15	90	3.0m	2.0	.75	30		100kt	1.0				C	
44	SFT150	500m		#J	3.0	.50	32	10	32	1.0m	2.5	2.0	50		300kt	.17		A			
45	TF90/30	500m		#J	3.0	15	80	10	32	1.0m	2.5	5.0	50		300kt						
46	TF90/60	500m		∅J	15		64	20	64	.50	5.0	5.0	10	20	200kt			A		TO3	
47	V15/10DP	500m		∅J	3.0		15	5.0	5.0	.10m	1.5	.20	10	20	200kt			A		TO3	
48	V15/10P	500m		∅J	3.0		15	5.0	5.0	.10m	1.5	.02	10	20	200kt			A		TO3	
49	V15/20DP	500m		∅J	3.0		15	5.0	5.0	.10m	1.5	.20	20	30	200kt			A		TO3	
50	V15/20P	500m		∅J	3.0		15	5.0	5.0	.10m	1.5	.20	20	30	200kt			A		TO3	
51	V15/30DP	500m		∅J	3.0		15	5.0	5.0	.10m	1.5	.20	30	30	200kt			A		TO3	
52	V15/30P	500m		∅J	3.0		30	5.0	5.0	.10m	1.5	.20	30	30	200kt			A		TO3	
53	V30/10DP	500m		∅J	3.0		30	10	10	.10m	1.5	.20	10	20	200kt			A		TO3	
54	V30/10P	500m		∅J	3.0		30	10	10	.10m	1.5	.20	10	20	200kt			A		TO3	
55	V30/20DP	500m		∅J	3.0		30	10	10	.10m	1.5	.20	20	30	200kt			A		TO3	
56	V30/20P	500m		∅J	3.0		30	10	10	.10m	1.5	.20	20	30	300kt			A		TO3	
57	V30/30DP	500m		∅J	3.0		30	10	10	.10m	1.5	.20	20	20	200kt			A		TO3	
58	V30/30P	500m		∅J	3.0		30	10	10	.10m	1.5	.20	30	20	200kt			A		TO3	
59	V60/10DP	500m		∅J	3.0		60	20	20	.10m	1.5	.20	10	20	200kt			A		TO3	
60	V60/10P	500m		∅J	3.0		60	20	20	.10m	1.5	.20	10	20	200kt			A		TO3	
61	V60/20DP	500m		∅J	3.0		60	20	20	.10m	1.5	.20	20	30	200kt			A		TO3	
62	V60/20P	500m		∅J	3.0		60	20	20	.10m	1.5	.20	20	30	200kt			A		TO3	
63	V60/30DP	500m		∅J	3.0		60	20	20	.10m	1.5	.20	30	38	∅	200kt			A		TO3
64	V60/30P	500m		∅J	3.0		60	20	20	.10m	1.5	.20	30	38	∅	200kt			A		TO3
65	X113	500m		#J	4.0		70		60		4.0		20	∅							
66	X133	500m		#J	4.0				60		4.0										
67	2SB119	588m		∅J	3.0	.50	32	10	16	.20m	1.0	3.0	6.0		200kt			A		TO3	
68	2SB119A	588m		∅J	3.0	.50	60	10	30	.20m	1.0	3.0	6.0		200kt			A		TO3	
69	2N1014	666m		#C	5.0	2.0	100	60	65	500u	1.5	1.0			6.5kt			A		TO3	
70	2N1182	666m	50 ∅	#J	5.0		60	12	60	500u	1.2	500m	35	85	5.0k	450m	90u	A		TO3	
71	2S41	666m	8.0	#S	1.2	1.2	40	12	60	2.0m			62	∅				A		TO3	
72	2SB129A	666m		#J	6.0		120	60	80	220u	1.0	6.0	30	80				A		TO3	
73	2SB312	666m	43 ∅	#J	8.0		140	1.0		220u	1.0	8.0	14	100		110m		D		TO3	
74	2SB313	666m	43 ∅	#J	10		180	1.0		220u	1.0	8.0	14	100		110m		D		TO3	
75	2SB471A	666m	30 ∅	#J	10	3.0	60	10	45	500u	2.0	1.0	50	100	300kt			A		MD6	
76	2SB471B	666m	30 ∅	#J	10	3.0	60	10	45	500u	2.0	1.0	80	165	300kt			A		MD6	
77	2SB472A	666m	30 ∅	#J	10	3.0	80	10	50	500u	2.0	1.0	50	100	300kt			A		MD6	
78	2SB472B	666m	30 ∅	#J	10	3.0	80	10	50	500u	2.0	1.0	80	165	300kt			A		MD6	
79	146T1	666m		#J	3.0		40	20	30	1.0m	2.0	2.0	20	150	200kt	130m		A		TO3	
80	ADY25	666m	40 ∅	#J	7.5	2.0	100	12	80	110u	0.0	1.0	150	∅	250kt			ADA		TO37	
81	B1913	666m	5.0	#J	3.0	300m			50		2.0	600m	65			870m		ADA		TO37	
82	B10142	666m	30 ∅	#J	10				325	∅	2.0	6.0	20		80m	1.0u		DA		TO30	
83	B																				

8. GERMANIUM PNP - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	TYPE No.	1 MAX. THERM. RES. J to C (W)	MAX. FREE AIR @ 25°C (W)	M T A E M P	ABSOLUTE MAX. RATINGS @25°C					MAX. hfe			MIN	MAX	f _{ae} (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION	C O D E			
					I _c (A)	I _b (A)	V _{cb0} (V)	V _{eb0} (V)	V _{ce0} (V)	I _{cb0} @ MAX V _{cb0} @25°C (A)	V _{cb} (V)	V _{eb} (V)								I _c		
1	B10144A	667m	50	#J	20				130	1.0m	2.0	15	25		.03	1.5u#	ADA	TO3				
2	B10144B	667m	50	#J	20				100	1.0m	2.0	15	25		.03	1.5u#	ADA	TO3				
3	CTP1112	667m		#J	3.0				80			2.0	20				A					
4	CTP1117	667m		#J	3.0				40			1.0					A					
5	CTP1127	667m		#J					80			2.0					A					
6	CTP1133	667m		#J					40	6.0		50					A					
7	CTP1135	667m	40	#J					40	20		50	40		.50		A					
8	CTP1137	667m		#J					40			50					A					
9	CTP1265	667m		#J	8.0	.60	60		50		20m	2.0	30	75			AA	TO3				
10	CTP1266	667m		#J	8.0	.30	60		50		20m	2.0	60	150			AA	TO3				
11	CTP1296	667m		#J	8.0	.60	80		65		20m	2.0	30	75			AA	TO3				
12	CTP1297	667m		#J	8.0	.30	80		65		20m	2.0	60	150			AA	TO3				
13	CTP1306	667m		#J	8.0	.60	40		35		20m	2.0	30	75			AA	TO3				
14	CTP1307	667m		#J	8.0	.30	40		35		20m	2.0	60	150			AA	TO3				
15	CTP1314	667m		#J	8.0	.60	100		75		20m	2.0	30	75			AA	TO3				
16#	GET7	667m		∅J	8.0				15		1.5m	1.5					A					
17#	GET8	667m		∅J	8.0				30		1.5m	1.5					A					
18#	GET9	667m		∅J	8.0				60		1.5m	1.5					A					
19	LT5090	667m		#J	6.0	.70	30	15	30	3.0m	2.0	1.0	40		100k	1.0		TO3	C0			
20	LT5093	667m		#J	6.0	.70	30	15	30	3.0m	2.0	1.0	80		100k	1.0		TO3	C0			
21	LT5096	667m		#J	6.0	.70	30	15	30	3.0m	2.0	1.0	160		100k	1.0		TO3	C0			
22	LT5099	667m		#J	6.0	.70	60	15	60	3.0m	2.0	1.0	40		100k	1.0		TO3	C0			
23	LT5102	667m		#J	6.0	.70	60	15	60	3.0m	2.0	1.0	80		100k	1.0		TO3	C0			
24	LT5105	667m		#J	6.0	.70	60	15	60	3.0m	2.0	1.0	160		100k	1.0		TO3	C0			
25	LT5108	667m		#J	6.0	.70	80	15	75	3.5m	2.0	1.0	40		100k	1.0		TO3	C0			
26	LT5111	667m		#J	6.0	.70	80	15	75	3.5m	2.0	1.0	80		100k	1.0		TO3	C0			
27	LT5114	667m		#J	6.0	.70	80	15	75	3.5m	2.0	1.0	160		100k	1.0		TO3	C0			
28	LT5117	667m		#J	6.0	.70	100	15	90	4.0m	2.0	1.0	40		100k	1.0		TO3	C0			
29	LT5120	667m		#J	6.0	.70	100	15	90	4.0m	2.0	1.0	80		100k	1.0		TO3	C0			
30	LT5123	667m		#J	6.0	.70	100	15	90	4.0m	2.0	1.0	160		100k	1.0		TO3	C0			
31	LT5160	667m		#J	6.0		100	15	90	4.0m	2.0	1.0	40		100k	1.0						
32	LT5161	667m		#J	6.0		100	15	90	4.0m	2.0	1.0	40		100k	1.0						
33	LT5162	667m		#J	6.0		100	15	90	4.0m	2.0	1.0	40		100k	1.0						
34#	NKT452S1	667m		#J	3.0	.50	60	10	60	.10m	1.5	1.0	30	100					TO3			
35	X134	667m		#J	12				40			10										
36	X137	667m		#J	12				60			10										
37#	2SB296	714m	30	∅	∅J	10			160	3.0	180	330	25	200	1.5M	150m		DA	MD6			
38#	2SB300	735m	35	∅	∅J	10			100	1.0	100	330	30	200			D		TO3			
39#	2SB301	735m	35	∅	∅J	10			60	1.0	60	330	30	200			D		TO3			
40#	2SB228	757m		∅	5.0	2.0	80	50	35	5.0m	1.5	4.0	20	54	160m		A		TO3			
41#	2SB229	757m		∅	5.0	2.0	100	50	40	5.0m	1.5	4.0	20	54	160m		A		TO3			
42#	2SB230	757m		∅	5.0	2.0	120	50	50	5.0m	1.5	4.0	20	54	160m		A		TO3			
43#	2SB85	769m		#J	5.0	2.0	40	20	25	3.0m	1.5	4.0	14				A					
44#	2SB86	769m		#J	5.0	2.0	60	20	35	3.0m	1.5	4.0	14				A					
45#	2SB87	769m		#J	5.0	2.0	80	20	50	3.0m	1.5	4.0	20				A					
46	2N290	833m	55	∅	#J	12	1.0	70	60	1.0m	2.0	1.2	72	75	400k	50m		Δ	TO6			
47	2N391	833m		#J	5.0		50	20	20	8.0m	2.0	3.0	30				A					
48#	2SB124	833m		∅J	15		60	25		10m	1.5	15	70		300k	.02		A		MS1		
49#	2SB125	833m		∅J	15		36	25		10m	1.5	15	70		300k	.02		A		MS1		
50#	2SB148	833m		∅J	15		80	20		10m	1.5	15	70		300k	.02		A		MS1		
51#	2SB246	833m	54	∅	#J	5.0		40		500u	1.5	2.0	40	80			A			TO3		
52#	2SB358	833m	50	∅	#J	6.0	6.0	80	1.5	80	5.0m	1.5	4.0	10	100		D			TO3		
53#	2SB359	833m	50	∅	#J	10	10	120	1.5	120	5.0m	1.5	4.0	10	100		D			TO3		
54#	2SB360	833m	50	∅	#J	10	10	80	1.5	180	5.0m	1.5	4.0	10	100		D			TO3		
55	B1151	833m		#	15		30	25	25	2.0m	2.0	4.0	20		400k	.25				TO3		
56	B1151A	833m		#	15		50	25	40	2.0m	2.0	4.0	20		400k	.25				TO3		
57	B1151B	833m		#	15		80	25	70	2.0m	2.0	4.0	20		400k	.25				TO3		
58	B1152	833m		#	15		30	25	25	2.0m	2.0	8.0	20		400k	.13				TO3		
59	B1152A	833m		#	15		50	25	40	2.0m	2.0	8.0	20		400k	.13				TO3		
60	B1152B	833m		#	15		80	25	70	2.0m	2.0	8.0	20		400k	.13				TO3		
61	B10060	833m	60	#J	14	2.0			80		2.0	12	25				DA			TO3		
62	B10061	833m	60	#J	14	2.0			80		2.0	12	15				DA			TO3		
63	B10062	833m	60	#J	14	2.0			80		2.0	12	25				DA			TO3		
64	B10063	833m	60	#J	14	2.0			80		2.0	12	15				DA			TO3		
65	B10065	833m	60	#J	14	2.0			80		2.0	12	25				DA			TO41		
66	B10066	833m	60	#J	14	2.0			80		2.0	12	15				DA			TO41		
67	B10067	833m	60	#J	14	2.0			80		2.0	12	25				DA			TO41		
68	B10068	833m	60	#J	14	2.0			80		2.0	12	15				DA			TO41		
69#	GFT8024	833m		∅J	8.0		30	15	15		2.0	8.0	20			.15						
70	MP2137	833m	70	∅	#J		30	15	20	2.0m	2.0	500m	30	60	20k	250m		A			TO41	C0
71	MP2137A	833m	70	∅	#J		30	15	20	5.0m	2.0	500m	30	60	20k	250m		A			TO41	C0
72	MP2138	833m	70	∅	#J		45	25	30	2.0m	2.0	500m	30	60	20k	250m		A			TO41	C0
73	MP2138A	833m	70	∅	#J		45	25	30	5.0m	2.0	500m	30	60	20k	250m		A			TO41	C0
74	MP2139	833m	70	∅	#J		60	30	45	5.0m	2.0	500m	30	60	20k	250m		A			TO41	C0
75	MP2139A	833m	70	∅	#J		60	30	45	5.0m	2.0	500m	30	60	20k	250m		A			TO41	C0
76	MP2140	833m	70	∅	#J		75	40	60	5.0m	2.0	500m	30	60	20k	250m		A			TO41	C0
77	MP2140A	833m	70	∅	#J		75	40	60	5.0m	2.0	500m	30	60	20k	250m		A			TO41	C0
78	MP2141	833m	70	∅	#J		90	45	65	5.0m	2.0	500m	30	60	20k	250m		A			TO41	C0
79	MP2141A	833m	70	∅	#J		90	45	65	5.0m	2.0	500m	30	60	20k	250m		A			TO41	C0
80	MP2142	833m	70	∅	#J		30	15	20	5.0m	2.0	500m	50	100	20k	250m		A			TO41	C0
81	MP2142A	833m	70	∅	#J		30	15	20	5.0m	2.0	500m	50	100	20k	250m		A			TO41	C0
82	MP2143	833m	70	∅	#J		45	25	30	5.0m	2.0	500m	50	100	20k	250m		A			TO41	C0
83	MP2143A	833m	70	∅	#J		45	25	30	5.0m	2.0	500m	50	100	20k							

8. GERMANIUM PNP - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	TYPE No.	MAX. THERM. RES. J to C (W)	MAX. FREE AIR @ 25°C (W)	Pc	M A E X M P	ABSOLUTE MAX. RATINGS @25°C					MAX. Vcb @ 25°C (A)	hfe			f _{ae} (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION		L C O D E
						Ic (A)	Ib (A)	Vcbo (V)	Vebo (V)	Vceo (V)		MIN	MAX	STRUCTURE				DWG. No.		
1	CTP1514	1.0			#J	13		40		30	2.00	5.0	60	120						
2#	CTP1545	1.0	1.7 *		#J	25		80	30	40	2.00	25	25 †	125 †	4.0k	40m				TO3
3#	CTP1553	1.0	1.7 *		#J	25		100	30	50	2.00	25	25 †	125 †	4.0k	40m				TO3
4	H200E	1.0			#J	10		60		30	2.00	5.0	20		400k†	.10				AA
5	MN21	1.0			#J	3.0		80			2.0m	4.00	1.0	40	80	.50				AA
6	MN28	1.0			#J	3.0		30			5.0m	2.00	5.0	30	100	2.0				AA
7	MN29	1.0			#J	3.0		40			5.0m	2.00	5.0	30	100	2.0				AA
8	MN32	1.0			#J	3.0		30			3.0m	12	50 ∅	30	70	.80				AA
9#	OD650	1.0			#J	15	3.0	60	20	25	2.0m	2.00	15	10	25 ∅	100k†				AA
10#	OD650B	1.0	45 ∅		#J	5.0	1.0	60	20	25	2.0m	2.00	5.0	15	25 ∅	100k†				AA
11#	OD651	1.0	45 ∅		#J	15	3.0	60	25	40	2.0m	2.00	15	10	15 ∅	100k†				AA
12#	OD651A	1.0	45 ∅		#J	15	3.0	60	25	30	2.0m	2.00	15	10	25 ∅	100k†				AA
13#	V15/15NP	1.0			#J	6.0		15	4.0	5.0	1.0m	1.5	2.0	15	30	150k†				AA
14#	V15/30NP	1.0			#J	6.0		15	4.0	5.0	1.0m	1.5	2.0	30	60	150k†				AA
15#	V30/15NP	1.0			#J	6.0		15	8.0	10	1.0m	1.5	2.0	15	30	150k†				AA
16#	V30/30NP	1.0			#J	6.0		30	8.0	10	1.0m	1.5	2.0	30	60	150k†				AA
17#	XC141	1.0			#S	2.0		40	12	40	3.0m	1.5	1.0	30	70					AA
18#	XC142	1.0			#J	2.0		60	12	40	3.0m	1.5	1.0	70	70					AA
19#	2G223	1.1			#J	15	5.0	40		30	2.0m	1.50	15	10	12 ∅	250k†	50m	11u		AA
20#	2G224	1.1			#J	15	5.0	60			2.0m	1.50	15	10	12 ∅	250k†	50m	11u		AA
21#	2G225	1.1			#J	15	5.0	80			2.0m	1.50	15	10	12 ∅	250k†	50m	11u		AA
22#	2G226	1.1			#J	20	5.0	40			2.0m	1.50	20	10	12 ∅	300k†	50m	10u		AA
23#	2G227	1.1			#J	20	5.0	60			2.0m	1.50	20	10	12 ∅	300k†	50m	10u		AA
24#	2G228	1.1			#J	20	5.0	80			2.0m	1.50	20	10	12 ∅	300k†	50m	10u		AA
25#	2G229	1.1			#J	25	5.0	40	30		2.0m	1.50	25	10	12 ∅	350k†	.05	10u		AA
26#	2G230	1.1			#J	25	5.0	60	30		2.0m	1.50	25	10	12 ∅	300k†	.05	10u		AA
27#	2G231	1.1			#J	25	5.0	80	30		2.0m	1.50	25	10	12 ∅	300k†	.05	10u		AA
28	2N1029	1.2	90 ∅		#J	15	1.5	50	25	30	15m	2.00	10	20	60	100m	15u			AA
29	2N1030	1.2	90 ∅		#J	15	1.5	50	25	30	15m	2.00	10	50	100	100m	15u			AA
30	2N1030A	1.2	90 ∅		#J	15	1.5	60	25	40	15m	2.00	10	50	100	100m	15u			AA
31	2N1030B	1.2	90 ∅		#J	15	1.5	90	25	70	15m	2.00	10	50	100	100m	15u			AA
32	2N2211	1.2	90 ∅		#S	5.0	3.0	80	40	60	20m	4.00	1.0	60	140	5.0k				AA
33	2N2446†	1.2	90 ∅		#S	7.0	5.0	80	20	50	2.0m	2.00	5.0	15	45	3.0kΔ		30u∅		AA
34	2N3132	1.2	90 ∅		#S	5.0	5.0	100	40	70	5.0m	2.00	2.0	40	200	3.0kΔ		300m		AA
35	CRT1544	1.2	90 ∅		#J	25	5.0	60	30	40	2.00	25	25	125	5.0k	40m				AA
36	CRT1545	1.2	90 ∅		#J	25	5.0	80	30	60	15m	2.00	25	25	125	5.0k	40m			AA
37	CRT1552	1.2	90 ∅		#J	25	5.0	40	30	30	10m	2.00	25	25	75	5.0k	40m			AA
38	CRT1553	1.2	90 ∅		#J	25	5.0	100	30	75	10m	2.00	25	25	75	5.0k	40m			AA
39	DTG1000	1.2			#J	15	3.0			100	2.00	8.0	20	50	∅					AA
40	DTG1110B†	1.2			#J	15	3.0	250		80	2.0	4.0	25	150	350k†	160m	6.0u			AA
41	DTG1210A†	1.2			#J	15	3.0	250		80	2.0	1.0	35		350k†	160m	6.0u			AA
42#	NKT501	1.2	90 ∅		#J	25	4.0	60	12	60	300u∅	1.5	25	12	650k†					AA
43#	NKT502	1.2	90 ∅		#J	25	4.0	30	12	30	300u∅	1.5	25	12	650k†					AA
44#	NKT503	1.2	90 ∅		#J	25	4.0	60	12	60	300u∅	1.5	10	12	650k†					AA
45#	NKT504	1.2	90 ∅		#J	25	4.0	30	12	30	300u∅	1.5	10	12	650k†					AA
46	TI366A	1.2	25 ∅		#J	3.0		60	45	10m	1.00	1.0	50		.10					AA
47	TI367A	1.2	25 ∅		#J	3.0		60	40	20m	1.00	5.0	30		.15					AA
48	TI368A	1.2	25 ∅		#J	3.0		45	25	10m	1.00	1.0	50		.10					AA
49	TI389A	1.2	25 ∅		#J	3.0		45	23	20m	1.00	5.0	30		.15					AA
50	TI370A	1.2	106 ∅		#J	3.0		30	45	20m	1.00	5.0	30		.15					AA
51	TS610	1.2	106 ∅		#J	5.0		25	20	20	2.00	2.0	15		4.0k†		25u			AA
52	USAF506ES010M	1.2	20 ∅		#J	15	4.0	80	60	60	200u∅	2.00	5.0	25	50	5.0kΔ	100m			AA
53	2N301B	1.3	90 ∅		#J			40		32	∅									AA
54	2N301G	1.3	90 ∅		#J			40		32	∅									AA
55	2N301W	1.3	90 ∅		#J			40		32	∅									AA
56	2N1030C	1.3	90 ∅		#J	15	1.5	100	25	80	15m	2.00	10	50	100	.10	15u			AA
57	2N1358M	1.3			#J	15	4.0	80	40	40	4.0m	2.00	5.0	25	50	5.0k	.06	15u		AA
58	2N1419	1.3			#J			70		70	15m	2.00	25	40	100	.35	20u			AA
59#	2SB477	1.3	80 ∅		#J	30	3.0	30	15	15	5.0m	2.00	15	20	130	80m				AA
60#	2SB478	1.3	80 ∅		#J	30	3.0	60	30	30	5.0m	2.00	15	20	130	80m				AA
61#	2SB479	1.3	80 ∅		#J	30	3.0	80	40	40	5.0m	2.00	15	20	130	80m				AA
62#	2SB480	1.3	80 ∅		#J	30	3.0	100	50	50	5.0m	2.00	15	20	130	80m				AA
63	B1368B	1.3			#J	25		100		10m	2.00	10	35	140						AA
64	B1368C	1.3			#J	25		100		10m	2.0	10	35	140						AA
65#	CRT1592	1.3			#J	35		80		60	4.0m	4.00	35	12						AA
66	CTP1530	1.3			#J	13	4.0	100		80	5.0	25	50	10k†	.06					AA
67	CYT1549	1.3			#J	15		40	20	20	3.0m	2.00	10	10	30					AA
68	CYT1550	1.3			#J	15		60	30	30	3.0m	2.00	10	10	30					AA
69	CYT1551	1.3			#J	15		80	40	40	3.0m	2.00	10	10	30					AA
70	CYT1552	1.3			#J	15		100	50	50	3.0m	2.00	10	10	30					AA
71	CYT1553	1.3			#J	15		40	20	20										

8. GERMANIUM PNP - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE
& (2) TYPE No.

LINE No.	TYPE No.	1 MAX. THERM RES. J to C (W)	MAX FREE AIR @ 25°C (W)	Pc	M T A E X P	ABSOLUTE MAX. RATINGS @25°C					MAX. Icbo @ 25°C (A)	hfe			MIN	MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION		L E A D E	
						Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)		BIAS		MAX. Vcb (V)						Ic (A)	DESCRIPTION		DWG. No.
												Vcb (V)	Ic (A)										
1	ST109	2.0			#J	15	4.0	80	28	50	7.0m	2.00	10	19	42	5.0k		12u	A	T036			
2	ST110	2.0			#J	15	4.0	60	28	45	7.0m	2.00	10	38	84	3.0k		10u	A	T036			
3	ST111	2.0			#J	15	4.0	80	28	45	7.0m	2.00	10	38	84	3.0k		10u	A	T036			
4	ST112	2.0			#J	15	4.0	60	28	35	20m	2.00	10	25		3.0k		10u	A	T036			
5	TIG05	2.0	150	∅	#S	50	5.0	50	30	35	300u∅	2.00	30	20	80	200k	23m		A	T03			
6	TIG06	2.0	150	∅	#S	50	5.0	75	30	45	200u∅	2.00	30	20	80	200k	13m		A	T03			
7	TIG07	2.0	150	∅	#S	50	5.0	100	30	55	200u∅	2.00	30	20	80	200k	13m		A	T03			
8	TIG08	2.0	150	∅	#S	50	5.0	50	30	35	300u∅	2.00	30	20	80	200k	23m		A	T041			
9	TIG09	2.0	150	∅	#S	50	5.0	75	30	45	200u∅	2.00	30	20	80	200k	13m		A	T041			
10	TIG10	2.0	150	∅	#S	50	5.0	100	30	55	200u∅	2.00	30	20	80	200k	13m		A	T041			
11	TS609	2.0	170	∅	#J	15	4.0	40	20	40	8.0m	2.00	5.0	20		10k		15u	A	T036			

9. GERMANIUM NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	TYPE No.	1 MAX. THERM. RES. J to C (W)	MAX FREE AIR @ 25°C (W)	Pc	T A X E M P	ABSOLUTE MAX. RATINGS @25°C					MAX. I _{cb} @ 25°C (A)	h _{fe}			f _{ae} (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION		L C O D E
						I _c (A)	I _b (A)	BV _{cb} (V)	BV _{eb} (V)	BV _{ce} (V)		MAX V _{cb} (V)	BIAS I _c (A)	MIN				MAX	STRUC-TURE	
1#	2SD191	2.9m			ØJ	15		30	12	25	14n	1.0	.05	20	130			A	TO9	
2#	2SD192	2.9m			ØJ	15		30	12	25	14n	1.0	.05	40	130			A	TO9	
3#	2SD194	5.0m			ØJ	40		32	12	32	14n	1.0	.15	40	150			A	TO9	
4	2N95	80m			ØJ	1.5		30	15	15	5.0m	6.0	50m	40	Ø			A	X4	
5	2N102	80m			ØJ	800m		30	15	15	5.0m	6.0	50m	40	Ø			A	OV4	
6	2N142	80m			ØJ	800m		60	30	30	5.0m	12	50m	40	Ø			A	MM1	
7	2N144	80m			ØJ	800m		60	30	30	5.0m	12	50m	40	Ø			A		
8	2N468	200m			#J	3.0	500m	60	15	60	2.0m	2.0	1.0	15	80	150kt	1.2	A		
9	LT5164	200m		12	#J	3.0	.50	80	15	45	3.0m	2.0	1.0	15	80	150kt	1.2	A		
10	LT5165	200m			#J	3.0	.50	35	15	30	1.0m	2.0	1.0	15	80	150kt	1.2	A		
11	LT5202	286m			#J	1.0		60	30	60	6.0	.25	10	10	150kt			A		
12	LT5210	286m			#J	1.0		30	15	15	10m	1.0	.50	10				A	TO13	

10. SILICON PNP - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	TYPE No.	1 MAX. THERM. RES. J to C (W)	MAX. FREE AIR @ 25°C (W)	Pc	M T A E X P	ABSOLUTE MAX. RATINGS @25°C					MAX. Vcb @ 25°C (A)	BIAS hfe		MIN	MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION STRUCTURE	DWG. No.	L C E O A D E
						Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)		Vcb (V)	Ic (A)								
1	HA7730		1.0		♦			40	20		5.0u	10	5.0mΔ	22 ∅		1.0M†			A	X3	
2	HA7731		1.0		♦			80	40		2.0u	10	5.0mΔ	22 ∅		1.0M†			A	X3	
3	HA7732		1.0		♦			40	20		5.0u	10	5.0mΔ	60 ∅		1.0M†			A	X3	
4	HA7733		1.0		♦			80	40		2.0u	10	5.0mΔ	60 ∅		1.0M†			A	X3	
5	SE9562	200n#	20 ∅		\$J	2.0		5.5	80		100u\$	5.0∅	1.0	30	90 #	50M\$Δ			DPE	T066	C∅
6	SE9563	200n#	20 ∅		\$J	2.0		5.5	80		100u\$	5.0∅	1.0	70	300 #	60M\$Δ			DPE	T066	C∅
7	2N1238	7.1m	1.0		\$J			15	15	15	100n∅	2.0∅	10m	14 ∅		1.2M†			A	X3	
8	2N1239	7.1m	1.0		\$J			15	15	15	100n∅	2.0∅	10m	30 ∅		1.2M†			A	X3	
9	2N1240	7.1m	1.0		\$J			35	35	35	100n∅	2.0∅	10m	14 ∅		1.2M†			A	X3	
10	2N1241	7.1m	1.0		\$J			35	35	35	100n∅	2.0∅	10m	30 ∅		1.2M†			A	X3	
11	2N1242	7.1m	1.0		\$J			60	60	60	100n∅	2.0∅	10m	14 ∅		1.0M†			A	X3	
12	2N1242A	7.1m∅	1.0		\$J			90	90		100n∅	5.0	1.0mΔ	20 ∅		1.0M†			A	X3	
13	2N1243	7.1m	1.0		\$J			60	60	60	100n∅	2.0∅	10m	30 ∅		1.0M†			A	X3	
14	2N1244	7.1m	1.0		\$J			110	110	110	100n∅	2.0∅	10m	14 ∅		800k†			A	X3	
15	HA7515	7.1m∅	1.0		\$J			150	150		100n∅	5.0	1.0mΔ	20		800k†			A	X3	
16	HA7520	7.1m∅	1.0		\$J	100m		35	35		100n∅	5.0	1.0mΔ	12 †		100k†			A	X3	
17	HA7521	7.1m∅	1.0		\$J	100m		60	60		100n∅	5.0	1.0mΔ	12 †		1.2M†			A	X3	
18	HA7522	7.1m∅	1.0		\$J			15	15		100n∅	5.0∅	1.0mΔ	20 †		1.2M†			F		
19	HA7523	7.1m∅	1.0		\$J			35	35		100n∅	5.0∅	1.0mΔ	20 †		1.2M†			F		
20	HA7524	7.1m∅	1.0		\$J			60	60		100n∅	5.0∅	1.0m∅	20 †		1.0M†			F		
21	HA7525	7.1m∅	1.0		\$J			110	110		100n∅	5.0∅	1.0m∅	20 †		800k†			F		
22	HA7526	7.1m∅	1.0		\$J			15	15		100n∅	5.0∅	1.0mΔ	42 †		1.2M†			F		
23	HA7527	7.1m∅	1.0		\$J			35	35		100n∅	5.0∅	1.0mΔ	42 †		1.2M†			F		
24	HA7528	7.1m∅	1.0		\$J			60	60		100n∅	5.0∅	1.0m∅	42 †		1.0M†			F		
25	HA7529	7.1m∅	1.0		\$J			90			100n∅			14 †					A	X3	
26	HA7723	7.1m∅	1.0		\$J	50m		50	10		1.0u	6.0∅	1.0mΔ	25 ∅		100k†			A	X3	
27	HA7725	7.1m∅	1.0		\$J	50m		100	60		1.0u	6.0∅	1.0mΔ	14 ∅		100k†			A	X3	
28	HA7734	7.1m∅	1.0		\$J	50m		50	20		1.0u	6.0∅	1.0mΔ	14 ∅		200k†			A	X3	
29	HA7735	7.1m∅	1.0		\$J	50m		50	20		1.0u	6.0∅	1.0mΔ	25 ∅		300k†			A	X3	
30	HA7736	7.1m∅	1.0		\$J	50m		50	20		1.0u	6.0∅	1.0mΔ	50 ∅		400k†			A	X3	
31	HA7737	7.1m∅	1.0		\$J	50m		50	20		1.0u	6.0∅	1.0mΔ	18 ∅		300k†			A	X3	
32	2N3408	27m∅	4.0		\$S	500m		40	3.0	25	400n∅	15∅	40m	10	100	200M\$Δ			∅	MT30	
33	SE9560	200m#	20 ∅		\$J	2.0		5.5	60		100u\$	5.0∅	1.0	30	90 #	50M\$Δ			DPE	T066	C∅
34	SE9561	200m#	20 ∅		\$J	2.0		5.5	60		100u\$	5.0∅	1.0	70	300 #	60M\$Δ			DPE	T066	C∅
35	ST9001	200m	20		\$J	2.0		5.0	50		100u	10	500m	20	80	25M	3.0		ME	MT11	
36	SE9570	250m#	25 ∅		\$J	2.0		5.5	60		100u\$	5.0∅	1.0	30	90 #	50M\$Δ			DPE	T03	C∅
37	SE9571	250m#	25 ∅		\$J	2.0		5.5	60		100u\$	5.0∅	1.0	70	300 #	60M\$Δ			DPE	T03	C∅
38	SE9572	250m#	25 ∅		\$J	2.0		5.5	80		10u\$	5.0∅	1.0	30	90 #	50M\$Δ			DPE	T03	C∅
39	SE9573	250m#	25 ∅		\$J	2.0		5.5	80		10u\$	5.0∅	1.0	70	300 #	60M\$Δ			DPE	T03	C∅
40	FT400A	370m\$	30 ∅		\$J			80	5.0	80	100u\$	5.0∅	2.0	100	300	120M\$			DPE	T059	
41	FT400B	370m\$	30 ∅		\$J			80	5.0	80	100u\$	5.0∅	2.0	40	120	120M\$			DPE	T059	
42	STC5109/1	400m∅	85 ∅		\$C	3.0		40	10	40		3.0∅	1.0	20	60		300m		Δ	MS8	
43	STC5110/1	400m∅	85 ∅		\$C	3.0		60	10	60		3.0∅	1.0	20	60		300m		Δ	MS8	
44	STC5112/1	400m∅	85 ∅		\$C	2.0		40	10	40		3.0∅	500m	20	60		800m		Δ	MS8	
45	STC5113/1	400m∅	85 ∅		\$C	2.0		60	10	60		3.0∅	500m	20	60		800m		Δ	MS8	
46	STC5114/1	400m∅	85 ∅		\$C	2.0		80	10	80		3.0∅	500m	20	60		800m		Δ	MS8	
47	STC5519/1	400m∅	85 ∅		\$C	3.0		40	10	40		3.0∅	1.0	20	60		300m		Δ	MT10a	
48	STC5520/1	400m∅	85 ∅		\$C	3.0		60	10	60		3.0∅	1.0	20	60		300m		Δ	MT10a	
49	STC5521/1	400m∅	85 ∅		\$C	3.0		80	10	80		3.0∅	1.0	20	60		300m		Δ	MT10a	
50	STC5522/1	400m∅	85 ∅		\$C	2.0		40	10	40		3.0∅	500m	20	60		800m		Δ	MT10a	
51	STC5523/1	400m∅	85 ∅		\$C	2.0		60	10	60		3.0∅	500m	20	60		800m		Δ	MT10a	
52	STC5524/1	400m∅	85 ∅		\$C	2.0		80	10	80		3.0∅	500m	20	60		800m		Δ	MT10a	
53	2P389	454m	85 ∅		\$J	3.0		10	10	60	10m	15∅	1.0	12	60	2.0k\$	5.0		Δ	MS3	
54	2P424	454m	85 ∅		\$J	3.0		10	10	80	10m	15∅	1.0	12	60	2.0k\$	5.0		Δ	MS3	
55	TIXP07	666m\$	3.0		\$C	7.5	1.0	100	8.0	80	1.0u\$	5.0∅	2.0	20 #	90	10M\$Δ	250m		PE	T053	

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	TYPE No.	MAX. THERM. RES. TO C (W)	MAX. FREE AIR @ 25°C (W)	MAX. P _C	M T A E X P	ABSOLUTE MAX. RATINGS @25°C					MAX. hfe			MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION		LE O A D E		
						Ic (A)	Ib (A)	V _{cb0} (V)	V _{be0} (V)	V _{ceo} (V)	I _{cb0} @ MAX V _{cb} @ 25°C (A)	V _{cb} (V)	I _c (A)			MIN	MAX		f _{ae} (Hz)	STRUC-TURE
1	2N1839A		2.8 ∅			15		45			1.5∅		12							
2#	25C15		1.0		\$J	50m		30			1.0u	5.0	10	60	∅	ME	TO5			
3#	25C140		1.7		\$J	1.0		60			12u	10	50m	30	∅	ME	TO9			
4#	28T2C		2.5			100m		60	1.0		5.0u	10	5.0m	14	∅					
5#	29T2C		2.5			100m		60	1.0		5.0u	10	5.0m	14	∅					
6	957		1.0		\$	50m		60			6.0u		30	∅						
7	958		1.0		\$	50m		60			6.0u		30	∅						
8#	FT012		20		\$S	2.0		70	6.0	40	250u	15∅	50m	2.0	3.0 ∅		TO36			
9#	PT3691		20		\$S	50		70	4.0	40				40						
10	PT6890		70		\$J	5.0		60	4.0	40			25	100						
11	RT1420M		3.0		\$J			60	5.0	40	1.0u∅	10∅	150 ∅	140			TO46			
12	TA6200		1.0					60	5.0	30	10∅	5.0∅	500m	80	∅	PL				
13	XT515		2.8		\$J	75m		120			1.0m	50	30	5.0	∅		D			
14	XT516		2.8		\$J	75m		120			1.0m	50	30	5.0	∅		D			
15	XT517		2.8		\$J	75m		120			1.0m	50	30	5.0	∅		D			
16	XT518		2.8		\$J	75m		120			1.0m	50	30	5.0	∅		D			
17	XT519		2.8		\$J	75m		120			1.0m	50	30	5.0	∅		D			
18	XT520		2.8		\$J	75m		120			1.0m	50	30	5.0	∅		D			
19#	ZT2831		8.8 ∅		\$J	1.5		80	4.0	80	100m∅						TO39			
20	AMF2018	625u	85 ∅		\$C	13		50	5.0	100 ∅		15∅	10	10		ME	MD19			
21	AMF201C	625u	85 ∅		\$C	13		50	5.0	100 ∅		15∅	10	10		ME	MD19			
22	AMF201D	625u	85 ∅		\$C	13		50	5.0	130 ∅		15∅	10	10		ME	MD19			
23	AMF201E	625u	85 ∅		\$C	13		50	5.0	150 ∅		15∅	10	10		ME	MD19			
24	1768-0415	1.1m	200 ∅		\$J	25	10	50	7.0	40	20m #	4.0∅	15	20	#	EM	TO63			
25	1768-0420	1.1m	200 ∅		\$J	25	10	50	7.0	40	20m #	4.0∅	20	20	#	EM	TO63			
26	1768-0425	1.1m	200 ∅		\$J	25	10	50	7.0	40	20m #	4.0∅	25	10	#	EM	TO63			
27	1768-0615	1.1m	200 ∅		\$J	25	10	70	7.0	80	20m #	4.0∅	15	20	#	EM	TO63			
28	1768-0625	1.1m	200 ∅		\$J	25	10	70	7.0	80	20m #	4.0∅	25	10	#	EM	TO63			
29	1768-0815	1.1m	200 ∅		\$J	25	10	90	7.0	80	20m #	4.0∅	15	20	#	EM	TO63			
30	1768-0825	1.1m	200 ∅		\$J	25	10	90	7.0	80	20m #	4.0∅	25	10	#	EM	TO63			
31	1768-1015	1.1m	200 ∅		\$J	25	10	110	7.0	100	20m #	4.0∅	15	20	#	EM	TO63			
32	1768-1025	1.1m	200 ∅		\$J	25	10	110	7.0	100	20m #	4.0∅	25	10	#	EM	TO63			
33	1768-1215	1.1m	200 ∅		\$J	25	10	130	7.0	120	20m #	4.0∅	15	20	#	EM	TO63			
34	1768-1225	1.1m	200 ∅		\$J	25	10	130	7.0	120	20m #	4.0∅	25	10	#	EM	TO63			
35	1768-1415	1.1m	200 ∅		\$J	25	10	150	7.0	140	20m #	4.0∅	15	20	#	EM	TO63			
36	1768-1425	1.1m	200 ∅		\$J	25	10	150	7.0	140	20m #	4.0∅	25	10	#	EM	TO63			
37	1776-0450	1.1m	200 ∅		\$J	50	25	50	7.0	40	20m #	5.0∅	50	10	#	EM	TO63			
38	1776-0650	1.1m	200 ∅		\$J	50	25	70	7.0	80	20m #	5.0∅	50	10	#	EM	TO63			
39	1776-0850	1.1m	200 ∅		\$J	50	25	90	7.0	80	20m #	5.0∅	50	10	#	EM	TO63			
40	1776-1050	1.1m	200 ∅		\$J	50	25	110	7.0	100	20m #	5.0∅	50	10	#	EM	TO63			
41	1776-1250	1.1m	200 ∅		\$J	50	25	130	7.0	120	20m #	5.0∅	50	10	#	EM	TO63			
42	1776-1450	1.1m	200 ∅		\$J	50	25	150	7.0	140	20m #	5.0∅	50	10	#	EM	TO63			
43	1771-0440	1.7m	300 ∅		\$J	50	25	50	7.0	40	20m #	5.0∅	40	10	#	EM	TO114			
44	1771-0450	1.7m	300 ∅		\$J	50	25	50	7.0	40	20m #	5.0∅	50	10	#	EM	TO114			
45	1771-0460	1.7m	300 ∅		\$J	50	25	50	7.0	40	20m #	5.0∅	60	10	#	EM	TO114			
46	1771-0640	1.7m	300 ∅		\$J	50	25	70	7.0	60	20m #	5.0∅	40	10	#	EM	TO114			
47	1771-0650	1.7m	300 ∅		\$J	50	25	70	7.0	60	20m #	5.0∅	50	10	#	EM	TO114			
48	1771-0660	1.7m	300 ∅		\$J	50	25	70	7.0	60	20m #	5.0∅	60	10	#	EM	TO114			
49	1771-0840	1.7m	300 ∅		\$J	50	25	90	7.0	80	20m #	5.0∅	40	10	#	EM	TO114			
50	1771-0850	1.7m	300 ∅		\$J	50	25	90	7.0	80	20m #	5.0∅	50	10	#	EM	TO114			
51	1771-0860	1.7m	300 ∅		\$J	50	25	90	7.0	80	20m #	5.0∅	60	10	#	EM	TO114			
52	1771-1040	1.7m	300 ∅		\$J	50	25	110	7.0	100	20m #	5.0∅	40	10	#	EM	TO114			
53	1771-1050	1.7m	300 ∅		\$J	50	25	110	7.0	100	20m #	5.0∅	50	10	#	EM	TO114			
54	1771-1060	1.7m	300 ∅		\$J	50	25	110	7.0	100	20m #	5.0∅	60	10	#	EM	TO114			
55	1771-1240	1.7m	300 ∅		\$J	50	25	130	7.0	120	20m #	5.0∅	40	10	#	EM	TO114			
56	1771-1250	1.7m	300 ∅		\$J	50	25	130	7.0	120	20m #	5.0∅	50	10	#	EM	TO114			
57	1771-1260	1.7m	300 ∅		\$J	50	25	130	7.0	120	20m #	5.0∅	60	10	#	EM	TO114			
58	1771-1440	1.7m	300 ∅		\$J	50	25	150	7.0	140	20m #	5.0∅	40	10	#	EM	TO114			
59	1771-1450	1.7m	300 ∅		\$J	50	25	150	7.0	140	20m #	5.0∅	50	10	#	EM	TO114			
60	1771-1460	1.7m	300 ∅		\$J	50	25	150	7.0	140	20m #	5.0∅	60	10	#	EM	TO114			
61	1771-1640	1.7m	300 ∅		\$J	50	25	170	7.0	160	20m #	5.0∅	40	10	#	EM	TO114			
62	2N3435	5.0m	1.0		\$S	250m		80	4.0	60	1.0u∅	20∅	10m	50	200		TO5			
63	2N4438	5.0m	1.0		\$J	200m	50m	300	8.0	300	1.0u∅	10∅	50m	40	120		TO39			
64	2N4439	5.0m	1.0		\$J	200m	50m	300	8.0	300	1.0u∅	10∅	50m	40	240		TO39			
65#	XC703	5.0m			\$C	1.5	1.0	60	12	40	0.1m∅	4.0∅	20	15	75		TO5			
66	11CF1	6.0m∅	1.2		\$J	1.0		60	5.0	250m∅	10u∅	10∅	150m∅	100	300 #	1.7	70n	PEA	MD14	
67	11CF2	6.0m∅	1.2		\$J	1.0		60	5.0	350m∅	10u∅	10∅	150m∅	100	300 #	1.7	70n	PEA	MT20	
68	11CF3	6.0m∅	1.2		\$J	1.0		60	5.0	250m∅	10u∅	10∅	150m∅	40	120 #	1.7	70n	PEA	MT20	
69	TRS5011C	6.0m	1.0		\$J	400m		500	5.0	500	15u∅	10∅	20m	30	65 ∅		D	TO5		
70	TRS6011C	6.0m	1.0		\$J	400m		600	5.0	600	20u∅	10∅	20m	30	65 ∅		D	TO5		
71	11CF4	6.6m∅	1.2		\$J	1.0		60	8.0	350m∅	10u∅	10∅	150 ∅	40	120 #	1.7	70n	PEA	MT20	
72	11CF5	6.6m∅	1.2		\$J	1.0		60	5.0	250m∅	10u∅	10∅	150 ∅	20	60 #	1.7	70n	PEA	MT20	
73	11CF6	6.6m∅	1.2		\$J	1.0		60	5.0	350m∅	10u∅	10∅	150 ∅	20	60 #	1.7	70n	PEA	MT20	
74	11CF7	6.6m∅	1.2		\$J	1.0		45	5.0	250m∅	10u∅	10∅	150 ∅	20	#	1.7	70n	PEA	MT20	
75	11CF8	6.6m∅	1.2		\$J	1.0		45	5.0	350m∅	10u∅	10∅	150 ∅	20	#	1.7	70n	PEA	MT20	
76	11CB1	6.7m∅	1.5		\$J	1.0		60	5.0	.25 ∅	.01m∅	10∅	150 ∅	100	300	.13ks	.23	.07u	PEA	MD14
77	11CB2	6.7m∅	1.5		\$J	1.0		60	5.0	.35 ∅	.01m∅	10∅	150 ∅	100	300	.13ks	.23	.07u	PEA	MD14
78	11CB3	6.7m∅	1.5		\$J	1.0		60	5.0	.25 ∅	.01m∅	10∅	150 ∅	40	120	.13ks	.23	.07u	PEA	MD14
79	11CB4	6.7m∅	1.5		\$J	1.0		60	5.0	.35 ∅	.01m∅	10∅	150 ∅	40	120	.13ks	.23	.07u	PEA	MD14
80	11CB5	6.7m∅	1.5		\$J	1.0		60	5.0	.25 ∅	.01m∅	10∅	150 ∅	20	60	.13ks	.23	.07u	PEA	MD14
81	11CB6	6.7m∅	1.5		\$J	1.0		60	5.0	.35 ∅	.01m∅	10∅	150 ∅	20	60	.13ks	.23	.07u	PEA	MD14
82	11CB7	6.7m∅	1.5		\$J	1.0		45	5.0	.25 ∅	.10m∅	10∅	150 ∅	20	#	.13ks	.23	.07u	PEA	MD14
83	11CB8	6.7m∅	1.5		\$J	1.0		45	5.0	.35 ∅	.10m∅	10∅	150 ∅	20	#	.13ks	.23	.07u	PEA	MD14
84	7C13	8.0m∅	1.0		\$J			120	10	60	10∅	200	75							

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE
& (2) TYPE No.

LINE No.	TYPE No.	MAX. THERM. RES. J to C (W)	MAX. FREE AIR @ 25°C (W)	Pc	M T A E X P	ABSOLUTE MAX. RATINGS @25°C					MAX. Vcb @ 25°C		BIAS hfe		MIN	MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION	STRUC-TURE	DWG. No.	L C O D E			
						Ic (A)	Ib (A)	Vcbo (V)	Vbebo (V)	Vceo (V)	Icbo (A)	Vcb (V)	Ic (A)	MIN										MAX		
1	RT5004	16m	3.0	∅	∅	∅	∅	∅	∅	∅	100	5.0	100	100	∅	∅	∅	∅	∅	∅	∅	∅	∅			
2	11C1F1	17m	1.2	∅	∅	∅	∅	∅	∅	∅	80	5.0	40	100	150	100	300	50kΔ	2.3	70n	ME	TO5				
3	11C3F1	17m	1.2	∅	∅	∅	∅	∅	∅	∅	80	5.0	50	100	150	100	120	50kΔ	2.3	70n	PE	MT20				
4	11C5F1	17m	1.2	∅	∅	∅	∅	∅	∅	∅	60	5.0	40	100	150	20	60	50kΔ	2.3	70n	PE	MT20				
5	11C10F1	17m	1.2	∅	∅	∅	∅	∅	∅	∅	120	7.0	80	100	150	40	120	50kΔ	2.3	70n	PE	MT20				
6	11C11F1	17m	1.2	∅	∅	∅	∅	∅	∅	∅	60	5.0	40	100	150	40	120	50kΔ	2.3	70n	PE	MT20				
7	D11C7F1	17m	1.2	∅	∅	∅	∅	∅	∅	∅	45	5.0	25	100	150	20	∅	50kΔ	2.3	70n	PE	MT20				
8	D11C1F1	18m	1.1	∅	∅	∅	∅	∅	∅	∅	∅	5.0	40	150	100	300	130kΔ	1.7	∅	PE	MT62					
9	D11C3F1	18m	1.1	∅	∅	∅	∅	∅	∅	∅	∅	8.0	50	250	100	120	130kΔ	1.7	∅	PE	MT62					
10	D11C5F1	18m	1.1	∅	∅	∅	∅	∅	∅	∅	∅	5.0	40	250	100	150	130kΔ	1.7	∅	PE	MT62					
11	D11C10F1	18m	1.1	∅	∅	∅	∅	∅	∅	∅	∅	7.0	80	150	100	120	130kΔ	1.7	∅	PE	MT62					
12	D11C11F1	18m	1.1	∅	∅	∅	∅	∅	∅	∅	∅	5.0	40	150	100	120	130kΔ	1.7	∅	PE	MT62					
13	2N4133	20m	3.0	∅	∅	∅	∅	∅	∅	∅	600m	100m	90	5.0	80	100	200mΔ	∅	∅	DPE	TO5	A∅				
14	3TE280	20m	3.0	∅	∅	∅	∅	∅	∅	∅	600m	100m	80	4.0	80	100	500m	∅	∅	EA	TO5					
15	MHT4401	22m	4.0	∅	∅	∅	∅	∅	∅	∅	500m	60	5.0	80	100	20	120	80M	2.0	∅	E	TO5				
16	MHT4402	22m	4.0	∅	∅	∅	∅	∅	∅	∅	500m	120	5.0	100	2.0u	4.0u	150m	20	120	80M	4.0	∅	∅			
17	MHT4411	22m	4.0	∅	∅	∅	∅	∅	∅	∅	500m	60	5.0	40	1.0u	4.0u	150m	20	60	80M	2.0	∅	∅			
18	MHT4412	22m	4.0	∅	∅	∅	∅	∅	∅	∅	500m	60	5.0	40	1.0u	4.0u	150m	40	120	80M	2.0	∅	∅			
19	MHT4413	22m	4.0	∅	∅	∅	∅	∅	∅	∅	500m	60	5.0	40	1.0u	4.0u	150m	100	∅	80M	2.0	∅	∅			
20	MHT4414	22m	4.0	∅	∅	∅	∅	∅	∅	∅	500m	80	5.0	60	1.0u	4.0u	150m	20	60	80M	3.0	∅	∅			
21	MHT4415	22m	4.0	∅	∅	∅	∅	∅	∅	∅	500m	80	5.0	60	1.0u	4.0u	150m	40	120	80M	3.0	∅	∅			
22	MHT4416	22m	4.0	∅	∅	∅	∅	∅	∅	∅	500m	80	5.0	60	1.0u	4.0u	150m	100	∅	80M	3.0	∅	∅			
23	MHT4417	22m	4.0	∅	∅	∅	∅	∅	∅	∅	500m	120	5.0	80	2.0u	4.0u	150m	20	60	80M	4.0	∅	∅			
24	MHT4418	22m	4.0	∅	∅	∅	∅	∅	∅	∅	500m	120	5.0	80	2.0u	4.0u	150m	40	120	80M	4.0	∅	∅			
25	MHT4419	22m	4.0	∅	∅	∅	∅	∅	∅	∅	500m	120	5.0	80	2.0u	4.0u	150m	100	∅	80M	4.0	∅	∅			
26	3TE160	23m	3.0	∅	∅	∅	∅	∅	∅	∅	600m	90	5.0	80	10u	5.0u	500m	10	80	200MΔ	1.0	∅	∅			
27	2N3152	25m	2.5	∅	∅	∅	∅	∅	∅	∅	100m	120	4.0	120	50u	20u	30m	40	∅	200kΔ	2.0	∅	∅			
28	TRS1004LP	26m	1.0	∅	∅	∅	∅	∅	∅	∅	400m	50m	100	3.0	100	10u	4.0u	25m	30	∅	∅	∅	∅			
29	TRS1204LP	26m	1.0	∅	∅	∅	∅	∅	∅	∅	400m	50m	120	3.0	120	10u	4.0u	25m	30	∅	∅	∅	∅			
30	TRS1404LP	26m	1.0	∅	∅	∅	∅	∅	∅	∅	400m	50m	140	3.0	140	10u	4.0u	25m	30	∅	∅	∅	∅			
31	TRS1804LP	26m	1.0	∅	∅	∅	∅	∅	∅	∅	400m	50m	180	3.0	180	10u	4.0u	25m	30	∅	∅	∅	∅			
32	TRS1804LP	26m	1.0	∅	∅	∅	∅	∅	∅	∅	400m	50m	180	3.0	180	10u	4.0u	25m	30	∅	∅	∅	∅			
33	TRS2004LP	26m	1.0	∅	∅	∅	∅	∅	∅	∅	400m	50m	200	3.0	200	10u	4.0u	25m	30	∅	∅	∅	∅			
34	TRS2254LP	26m	1.0	∅	∅	∅	∅	∅	∅	∅	400m	50m	225	3.0	225	10u	4.0u	25m	30	∅	∅	∅	∅			
35	TRS2504LP	26m	1.0	∅	∅	∅	∅	∅	∅	∅	400m	50m	250	3.0	250	10u	4.0u	25m	30	∅	∅	∅	∅			
36	TRS2754LP	26m	1.0	∅	∅	∅	∅	∅	∅	∅	400m	50m	275	3.0	275	10u	4.0u	25m	30	∅	∅	∅	∅			
37	TRS3014LP	26m	1.0	∅	∅	∅	∅	∅	∅	∅	400m	50m	300	3.0	300	10u	4.0u	25m	30	∅	∅	∅	∅			
38	TRS3504LP	26m	1.0	∅	∅	∅	∅	∅	∅	∅	400m	50m	350	3.0	350	10u	4.0u	25m	30	∅	∅	∅	∅			
39	TRS3754LP	26m	1.0	∅	∅	∅	∅	∅	∅	∅	400m	50m	375	3.0	375	10u	4.0u	25m	30	∅	∅	∅	∅			
40	TRS4014LP	26m	1.0	∅	∅	∅	∅	∅	∅	∅	400m	50m	400	3.0	400	10u	4.0u	25m	30	∅	∅	∅	∅			
41	TRS4254LP	26m	1.0	∅	∅	∅	∅	∅	∅	∅	400m	50m	425	3.0	425	10u	4.0u	25m	30	∅	∅	∅	∅			
42	TRS4504LP	26m	1.0	∅	∅	∅	∅	∅	∅	∅	400m	50m	450	3.0	450	10u	4.0u	25m	30	∅	∅	∅	∅			
43	TRS4754LP	26m	1.0	∅	∅	∅	∅	∅	∅	∅	400m	50m	475	3.0	475	10u	4.0u	25m	30	∅	∅	∅	∅			
44	2N3309A	28m	5.0	∅	∅	∅	∅	∅	∅	∅	500m	100m	60	4.0	60	∅	500n	2.0u	75m	5.0	100	300MΔ	2.0	∅	∅	
45	2N3374	28m	5.0	∅	∅	∅	∅	∅	∅	∅	500m	200m	80	4.0	80	∅	50n	2.0u	170m	10	∅	∅	∅	∅		
46	2N3664	28m	5.0	∅	∅	∅	∅	∅	∅	∅	500m	100m	80	4.0	80	∅	50n	2.0u	50m	8.0	80	300MΔ	3.0	∅	∅	
47	11C1B1	28m	1.5	∅	∅	∅	∅	∅	∅	∅	1.0	1.0	60	5.0	40	10n	10u	150m	100	300	50kΔ	2.3	70n	PE	MD14	
48	11C3B1	28m	1.5	∅	∅	∅	∅	∅	∅	∅	1.0	1.0	80	5.0	50	10n	10u	150m	40	120	50kΔ	2.3	70n	PE	MD14	
49	11C5B1	28m	1.5	∅	∅	∅	∅	∅	∅	∅	1.0	1.0	60	5.0	40	10n	10u	150m	20	60	50kΔ	2.3	70n	PE	MD14	
50	11C10B1	28m	1.5	∅	∅	∅	∅	∅	∅	∅	1.0	1.0	120	7.0	80	10n	10u	150m	40	120	50kΔ	2.3	70n	PE	MD14	
51	11C11B1	28m	1.5	∅	∅	∅	∅	∅	∅	∅	1.0	1.0	60	5.0	40	10n	10u	150m	40	120	50kΔ	2.3	70n	PE	MD14	
52	A213	28m	1.2	∅	∅	∅	∅	∅	∅	∅	150m	40	2.0	30	∅	5.0	150m	25	∅	1.0G	∅	∅	∅	∅	∅	
53	D11C1B1	28m	1.5	∅	∅	∅	∅	∅	∅	∅	1.0	1.0	50	4.0	40	15u	10u	150m	100	300	130kΔ	1.7	∅	∅	∅	
54	D11C3B1	28m	1.5	∅	∅	∅	∅	∅	∅	∅	1.0	1.0	80	5.0	50	25u	10u	150m	40	120	130kΔ	1.7	∅	∅	∅	
55	D11C5B1	28m	1.5	∅	∅	∅	∅	∅	∅	∅	1.0	1.0	50	4.0	40	25u	10u	150m	20	∅	130kΔ	1.7	∅	∅	∅	
56	D11C7B1	28m	1.5	∅	∅	∅	∅	∅	∅	∅	1.0	1.0	50	4.0	25	10n	10u	150m	20	∅	50kΔ	2.3	70n	PE	MD14	
57	D11C10B1	28m	1.5	∅	∅	∅	∅	∅	∅	∅	1.0	1.0	70	7.0	80	15u	10u	150m	40	120	130kΔ	1.7	∅	∅	∅	
58	D11C11B1	28m	1.5	∅	∅	∅	∅	∅	∅	∅	1.0	1.0	50	4.0	40	15u	10u	150m	40	120	130kΔ	1.7	∅	∅	∅	
59	D11C201B20	28m	1.0	∅	∅	∅	∅	∅	∅	∅	1.0	1.0	50	4.0	40	15u	10u	150m	100	300	130kΔ	1.7	∅	∅	∅	
60	D11C203B20	28m	1.0	∅	∅	∅	∅	∅	∅	∅	1.0	1.0	80	5.0	50	25u	10u	150m	40	120	130kΔ	1.7	∅	∅	∅	
61	D11C205B20	28m	1.0	∅	∅	∅	∅	∅	∅	∅	1.0	1.0	50	4.0	40	25u	10u	150m	20	60	130kΔ	1.7	∅	∅	∅	
62	D11C207B20	28m	1.0	∅	∅	∅	∅	∅	∅	∅	1.0	1.0	45	5.0	25	10n	10u	150m								

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	TYPE No.	1 MAX. THERM RES. J to C	MAX. FREE AIR @ 25°C (W)	M P A E X M P	ABSOLUTE MAX. RATINGS @25°C					MAX. I _{cb} @ 25°C		BIAS		MIN	MAX	f _{ae} (Hz)	MAX. SAT. RES. (s)	tr (s)	DESCRIPTION		L O D E
					I _c (A)	I _b (A)	V _{cb} (V)	V _{vebo} (V)	V _{ceo} (V)	I _{cb} (A)	I _{cb} (A)	V _{cb} (V)	I _c (A)						STRUCTURE	DWG. No.	
1	V600	50m	8.8	∅	SJ	1.5		80	4.0	60	100∅				2.0M	670m		PE	TO5	A	
2	V601	50m	8.8	∅	SJ	1.5		80	4.0	60	100∅				2.0M	670m		PE	TO5	A	
3	V602	50m	8.8	∅	SJ	1.5		50	4.0	40	100∅				2.0M	670m		PE	TO5	A	
4	TA2084	55m	5.0	∅	SA	1.0	50m	140	10.0	140								ME	TO5		
5	2N3718	57m	10	∅	SJ	1.0	20	60	4.0	60	10u	2.0	500m	2.0	100	∅	250M	PL	MT30		
6#	25C699	57m	10	∅	SJ	1.0		50	4.0	50	50∅	12∅	100m	15	30	∅	100M		MD32		
7	MHT4501	57m	10	∅	SJ	600m		60	5.0	40	1.0u	4.0	150m	20	120	∅	80M	EΔ	MT9		
8	MHT4502	57m	10	∅	SJ	600m		120	5.0	70	2.0u	4.0	150m	20	120	∅	80M	EΔ	MT9		
9	MHT4511	57m	10	∅	SJ	600m		60	5.0	40	1.0u	4.0	150m	20	60	∅	80M	E	MT9		
10	MHT4512	57m	10	∅	SJ	600m		60	5.0	40	1.0u	4.0	150m	40	120	∅	80M	E	MT9		
11	MHT4513	57m	10	∅	SJ	600m		60	5.0	40	1.0u	4.0	150m	100	60	∅	80M	E	MT9		
12	MHT4514	57m	10	∅	SJ	600m		80	5.0	60	1.0u	4.0	150m	20	60	∅	80M	E	MT9		
13	MHT4515	57m	10	∅	SJ	600m		80	5.0	60	1.0u	4.0	150m	40	120	∅	80M	E	MT9		
14	MHT4516	57m	10	∅	SJ	600m		80	5.0	60	1.0u	4.0	150m	100	60	∅	80M	E	MT9		
15	MHT4517	57m	10	∅	SJ	600m		120	5.0	80	2.0u	4.0	150m	20	60	∅	80M	E	MT9		
16	MHT4518	57m	10	∅	SJ	600m		120	5.0	80	2.0u	4.0	150m	40	120	∅	80M	E	MT9		
17	MHT4519	57m	10	∅	SJ	600m		120	5.0	80	2.0u	4.0	150m	100	60	∅	80M	E	MT9		
18	3TE150	58m	7.5	∅	SJ	600m		90	5.0	80	1.0u	5.0	500m	10	80	∅	200M	PE	TO37		
19	2N2472	66m	10	∅	SC	1.0		100	10	100	50u	10	200m	30	90	∅	10M		MD14		
20	2N2655	66m	15	∅	SS	500m	500m	100	8.0	100	100u	8.0	200m	30	90	∅	4.0M		TO5		
21	2N2849-11	66m	850m	∅	SS	3.0		100	5.0	80	1.0	1.0	100	300	∅	30k		TO5			
22	2N2849-21	66m	850m	∅	SS	3.0		100	5.0	80	1.0	1.0	100	300	∅	30k		MT26			
23	2N2849-31	66m	850m	∅	SS	3.0		100	5.0	80	1.0	1.0	100	300	∅	30k		MT32			
24	2N2850-21	66m	850m	∅	SS	3.0		100	5.0	80	1.0	1.0	40	120	∅	30k		MT26			
25	2N2850-31	66m	850m	∅	SS	3.0		100	5.0	80	1.0	1.0	40	120	∅	30k		MT32			
26	2N2851-21	66m	850m	∅	SS	3.0		100	5.0	80	1.0	1.0	40	120	∅	30k		MT26			
27	2N2851-31	66m	850m	∅	SS	3.0		100	5.0	80	1.0	1.0	40	120	∅	30k		MT32			
28	2N2852-21	66m	850m	∅	SS	3.0		100	5.0	80	1.0	1.0	20	60	∅	30k		MT26			
29	2N2852-31	66m	850m	∅	SS	3.0		100	5.0	80	1.0	1.0	20	60	∅	30k		MT32			
30	2N2853-21	66m	850m	∅	SS	3.0		60	5.0	40	1.0	1.0	20	60	∅	30k		MT26			
31	2N2853-31	66m	850m	∅	SS	3.0		60	5.0	40	1.0	1.0	20	60	∅	30k		MT32			
32	2N2854-11	66m	850m	∅	SS	3.0		60	5.0	40	1.0	1.0	100	300	∅	30k		TO5			
33	2N2854-21	66m	850m	∅	SS	3.0		60	5.0	40	1.0	1.0	100	300	∅	30k		MT26			
34	2N2854-31	66m	850m	∅	SS	3.0		60	5.0	40	1.0	1.0	100	300	∅	30k		MT32			
35	2N2855-21	66m	850m	∅	SS	3.0		60	5.0	40	1.0	1.0	40	120	∅	30k		MT26			
36	2N2855-31	66m	850m	∅	SS	3.0		60	5.0	40	1.0	1.0	40	120	∅	30k		MT32			
37	2N2856-21	66m	850m	∅	SS	3.0		60	5.0	40	1.0	1.0	20	60	∅	30k		MT26			
38	2N2856-31	66m	850m	∅	SS	3.0		60	5.0	40	1.0	1.0	20	60	∅	30k		MT32			
39	2N3595	66m	1.5	∅	SC	500m	250m	200	10	200	1.0u	8.0	200m	30	90	∅	15M		MT20a		
40	2N3596	66m	1.5	∅	SC	500m	250m	200	10	200	1.0u	8.0	200m	30	90	∅	15M		MT20a		
41	40255	66m	10	∅	SJ	1.0	500m	450	7.0	350	50u	10	20m	40	160	∅	20M		MD25		
42	40256	66m	10	∅	SJ	1.0	500m	300	7.0	250	50u	10	20m	40	160	∅	20M		MD25		
43	A515	66m	6.0	∅	SJ	150m	30m	220	5.0	100	100u	20	50m	20	35	∅	65M		TO39		
44	B3629	66m	10	∅	SC	5.0		80	8.0	60	100u	1.0	10	40	120	∅	20M		MT27		
45	B3630	66m	10	∅	SC	5.0		100	8.0	80	100u	1.0	10	40	120	∅	20M		MT27		
46#	BLY57	66m	11	∅	SJ	1.0		36	4.0	18	5.0	500m	5.0	150	∅	250M		TO60			
47	BR100A5	66m	5.0	∅	SJ	5.0	1.0	60	3.0	40	1.0	5.0	3.0	40	200	∅	300M		R50		
48	BR101A5	66m	5.0	∅	SJ	5.0	1.0	90	3.0	75	1.0	5.0	3.0	30	150	∅	300M		R50		
49	D7B1	66m	2.0	∅	SJ			80	10	60	50u	10	200m	12	36	∅	20M		MD14		
50	D7B2	66m	2.0	∅	SJ			80	10	60	50u	10	200m	12	36	∅	20M		MD14		
51	D7C1	66m	2.0	∅	SJ			80	10	60	50u	10	200m	12	36	∅	20M		R45		
52	D7C2	66m	2.0	∅	SJ			80	10	60	50u	10	200m	12	36	∅	20M		R45		
53	D7C3	66m	2.0	∅	SJ			120	10	100	50u	10	200m	12	36	∅	20M		R46		
54	D7D1	66m	2.0	∅	SJ			80	10	60	50u	10	200m	12	36	∅	20M		R46		
55	D7D2	66m	2.0	∅	SJ			80	10	60	50u	10	200m	12	36	∅	20M		R46		
56	D7D3	66m	1.0	∅	SJ			120	10	100	50u	10	200m	12	36	∅	20M		R46		
57	D7E1	66m	1.0	∅	SJ			80	10	60	50u	10	200m	12	36	∅	20M		MT19		
58	D7E2	66m	1.0	∅	SJ			80	10	60	50u	10	200m	12	36	∅	20M		MT19		
59	D7E3	66m	1.0	∅	SJ			120	10	100	50u	10	200m	12	36	∅	20M		MT19		
60	D7G1	66m	1.5	∅	SJ			80	10	60	50u	10	200m	12	36	∅	20M		MT20a		
61	D7G2	66m	1.5	∅	SJ			80	10	60	50u	10	200m	12	36	∅	20M		MT20a		
62	D7G3	66m	1.5	∅	SJ			120	10	100	50u	10	200m	12	36	∅	20M		MT20a		
63	MM2264	66m	1.1	∅	SJ	1.5		25	5.0	25	500∅	1.0	150m	70	20	∅	50M		TO5		
64	TN511	66m	5.0	∅	SJ	5.0		60	5.0	30	100u	5.0	1.0	20	60	∅	40k		MT26		
65	TN521	66m	5.0	∅	SJ	5.0		60	5.0	30	100u	5.0	1.0	40	120	∅	50k		500m		
66	TRS1005LP	66m	2.0	∅	SJ	400m	50m	100	3.0	100	10u	4.0	25m	30	∅	50k		80			
67	TRS1205LP	66m	2.0	∅	SJ	400m	50m	120	3.0	120	10u	4.0	25m	30	∅	50k		80			
68	TRS1405LP	66m	2.0	∅	SJ	400m	50m	140	3.0	140	10u	4.0	25m	30	∅	50k		80			
69	TRS1605LP	66m	2.0	∅	SJ	400m	50m	160	3.0	160	10u	4.0	25m	30	∅	50k		80			
70	TRS1805LP	66m	2.0	∅	SJ	400m	50m	180	3.0	180	10u	4.0	25m	30	∅	50k		80			
71	TRS2005LP	66m	2.0	∅	SJ	400m	50m	200	3.0	200	10u	4.0	25m	30	∅	50k		80			
72	TRS2255LP	66m	2.0	∅	SJ	400m	50m	225	3.0	225	10u	4.0	25m	30	∅	50k		80			
73	TRS2505LP	66m	2.0	∅	SJ	400m	50m	250	3.0	250	10u	4.0	25m	30	∅	50k		80			
74	TRS2755LP	66m	2.0	∅	SJ	400m	50m	275	3.0	275	10u	4.0	25m	30	∅	50k		80			
75	TRS3015LP	66m	2.0	∅	SJ	400m	50m	300	3.0	300	10u	4.0	25m	30	∅	50k		80			
76	TRS3255LP	66m	2.0	∅	SJ	400m	50m	325	3.0	325	10u	4.0	25m	30	∅	50k		80			
77	TRS3505LP	66m	2.0	∅	SJ	400m	50m	350	3.0</												

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	TYPE No.	1 MAX. THERM. RES. J to C (W)	MAX FREE AIR @ 25°C (W)	Pc	M T A E X P	ABSOLUTE MAX. RATINGS @25°C					MAX. hfe				f _{ae}	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION		L C O D E	
						Ic (A)	Ib (A)	BVcbo (V)	BVebo (V)	BVceo (V)	Icbo @ MAX Vcbo @25°C (A)	Vcbo (V)	Ic (A)	MIN				MAX	STRUCTURE		DWG. No.
1	X32	100m				.14	.03	25	1.0			60	10	3.0	3.0M	200		G			
2	X32A	100m				.14	.03	25	1.0			60	10	6.0	3.0M	200		G			
3	DPT2600	114m	20	∅	\$			100	5.0	80	\$	40	30	10							
4#	MTM360	114m	20	∅	\$	1.2		70	4.0			100u∅	120	100m	20	40	∅	PE	MT59b	R	
5	PT2622	114m	1.0	∅	\$	1.0	400m	100	4.0	100	\$	100m	40	300m	20	100	#		MT40		
6	PT2690	114m	1.0	∅	\$	1.0		70	4.0	40		100u	120	100m	20	65	#		MT40		
7	PT3690	114m	20	∅	\$	1.2	500m	70	4.0	40		100u	120	100m	20	65	#				
8	2N2340	125m	3.0	∅	\$	1.0	200m	50	4.0	40		500u	6.0	750m	10	40		PL	AA	T037	
9	2N2341	125m	3.0	∅	\$	1.0	200m	50	4.0	40		500u	6.0	750m	40	100		PL	AA	T037	
10	2N2342	125m	3.0	∅	\$	1.0	200m	100	4.0	80		500u	6.0	750m	10	40		PL	AA	T037	
11	2N2343	125m	3.0	∅	\$	1.0	200m	100	4.0	40		500u	6.0	750m	40	100		PL	AD	T037	
12	SN166	125m	20	∅	\$			60	3.0	60									MT24		
13	SN167	125m	20	∅	\$			65	1.0	85									MT24		
14	SN171	125m	20	∅	\$			140	2.0	140									MT24		
15	SN172	125m	20	∅	\$			120	2.0	120									MT24		
16	SN173	125m	20	∅	\$			140	2.0	140									MT24		
17	SN230	125m	18	∅	\$A	4.0	2.0	65	1.0	65		100u∅	10	1.0	10	50	∅	ME	T08		
18	SN231	125m	18	∅	\$A	4.0	2.0	140	1.0	140		100u∅	10	1.0	10	50	∅	ME	T08		
19	SN232	125m	18	∅	\$A	4.0	2.0	65	1.0	65		100u∅	10	1.0	10	50	∅	ME	T08		
20	SN234	125m	18	∅	\$A	4.0	2.0	140	1.0	140		100u∅	10	1.0	10	50	∅	ME	T08		
21	X30	125m	18	∅	\$A	2.0	.03	40	1.0			20	10	3.0	3.0M	200		G			
22	X31	125m	20	∅	\$	1.6	.03	80	1.0			60	10	3.0	3.0M	200		G			
23	40342	131m	23	∅	\$	3.0		65	4.0	40		5.0	300m	10				PE	T060		
24	40343	131m	23	∅	\$	3.0		65	4.0	40		5.0	300m	10				PE	T060		
25	TIP141	133m	2.0	∅	\$C	4.0	2.0	80	7.0	80		50u	5.0	200m	30	150		PE	X43		
26#	XB404	133m	23	∅	\$	3.0	1.0	65	4.0	40		5.0	250m	10	150			PE	T060		
27#	XB413	133m	23	∅	\$	3.0	1.0	45	4.0	25		10m	1.0	3.0	5.0			PE	MT59		
28	A572	140m	21	∅	\$	2.0	1.0	70	6.0	45		6.0	500m	35					T03		
29#	2SD124	141m∅	21	∅	\$	6.0	3.0	60	10	40		.02m∅	4.0	1.5	10	75		ME	T03		
30#	2SD125	141m∅	21	∅	\$	6.0	3.0	100	10	55		.02m∅	4.0	1.5	10	75		ME	T03		
31	970	141m∅		∅	\$S	1.4		120				10m						G			
32	JAN2N2525	142m	3.0	#	\$A	1.0		100	5.0	100	∅	4.0u∅	45	350m	10	40	#	PL	MT16a		
33	NS9609	142m	25	∅	\$A			50	3.0	45		150u∅	5.0	500m	40	120		PE	T061		
34	PT2634	142m	25	∅	\$	1.2	400m	100	4.0	80		28	350m	15	#						
35	V800	142m	25	∅	\$S			140	1.0	140		750u	10	1.0	10			PL			
36#	3TE440	143m	25	∅	\$	1.5		80	4.0	80		100u∅	5.0	500m	10	#	60	#	PL	MT62	
37	MA4990	143m		∅	\$A	1.2	.40	70	5.0	60		.10m∅	28	.35	15	80		PE	MT39		
38	NS9540	143m	20	∅	\$			65	3.0	65									T060		
39#	BUY161	149m	15	∅	\$	10		150	6.0	80		10u	2.0	2.0	40	120	#	DPE	T059		
40#	BUY171	149m	15	∅	\$	10		120	6.0	80		10u	2.0	2.0	40	100	#	DPE	T059	A∅	
41	FT34A1	151m	15	∅	\$	10		150	6.0	80		10u	2.0	2.0	40	120	#	DPE	T059	A∅	
42	FT34B1	151m	15	∅	\$	10		120	6.0	80		10u	2.0	2.0	∅	100	#	DPE	T059		
43	TIP24	153m	2.0	∅	\$C	2.0	500m	70	9.0	70	\$	250u∅	5.0	1.5	19	136	#	PE	X43		
44	2N1978	169m	17	\$	\$			60	5.0	40	\$	10u	5.0	500m	20			PE	MT8		
45#	BLY291	171m	30	∅	\$	3.0		100	5.0	80		100n	2.0	1.0	30	90	#	DPE	T059		
46#	BLY301	171m	30	∅	\$	3.0		100	5.0	80		100n	2.0	1.0	30	90	#	DPE	T059		
47	TN3011	172m	30	∅	\$A	3.0		100	5.0	80		1.0	50m	50	∅			PE	MT47		
48	TN3021	172m	30	∅	\$A	3.0		100	5.0	80		1.0	50m	15	25	∅		PE	MT47		
49	TN3031	172m	30	∅	\$A	3.0		60	5.0	40		1.0	50m	25	50	∅		PE	MT47		
50	TN3041	172m	30	∅	\$A	3.0		60	5.0	40		1.0	50m	15	25	∅		PE	MT47		
51	2N3929†	200m	20	∅	\$	3.0	500m	80	4.0	40		1.0m#	4.0	1.0	40	150	#	PE	T059		
52	2N5017	200m#	30	∅	\$S	4.5	1.5	65	4.0	30		4.0	500m	10	200				MT67		
53#	3TE240	200m	25	∅	\$	3.0		80	4.0	80		10u∅	5.0	1.5	10	60		PE	T03	L	
54	20C1	200m	15	∅	\$	4.0	1.0	175	15	120		5.0m	5.0	4.0	30	90		PE	T05		
55	1711-0402	200m	35	∅	\$	5.0	2.0	50	7.0	40	∅	4.0m#	4.0	2.0	15	#		EM	T059		
56	1711-0405	200m	35	∅	\$	5.0	2.0	50	7.0	40	∅	4.0m#	4.0	2.0	15	#		EM	T059		
57	1711-0602	200m	35	∅	\$	5.0	2.0	70	7.0	60	∅	4.0m#	4.0	2.0	15	#		EM	T059		
58	1711-0605	200m	35	∅	\$	5.0	2.0	70	7.0	60	∅	4.0m#	4.0	2.0	15	#		EM	T059		
59	1711-0802	200m	35	∅	\$	5.0	2.0	90	7.0	80	∅	4.0m#	4.0	2.0	15	#		EM	T059		
60	1711-0805	200m	35	∅	\$	5.0	2.0	90	7.0	80	∅	4.0m#	4.0	2.0	15	#		EM	T059		
61	1711-1002	200m	35	∅	\$	5.0	2.0	110	7.0	100	∅	4.0m#	4.0	2.0	15	#		EM	T059		
62	1711-1005	200m	35	∅	\$	5.0	2.0	110	7.0	100	∅	4.0m#	4.0	2.0	15	#		EM	T059		
63	1711-1202	200m	35	∅	\$	5.0	2.0	130	7.0	120	∅	4.0m#	4.0	2.0	15	#		EM	T059		
64	1711-1205	200m	35	∅	\$	5.0	2.0	130	7.0	120	∅	4.0m#	4.0	2.0	15	#		EM	T059		
65	1711-1402	200m	35	∅	\$	5.0	2.0	150	7.0	140	∅	4.0m#	4.0	2.0	15	#		EM	T059		
66	1711-1405	200m	35	∅	\$	5.0	2.0	150	7.0	140	∅	4.0m#	4.0	2.0	15	#		EM	T059		
67	1711-1602	200m	35	∅	\$	5.0	2.0	170	7.0	160	∅	4.0m#	4.0	2.0	15	#		EM	T059		
68	1711-1605	200m	35	∅	\$	5.0	2.0	170	7.0	160	∅	4.0m#	4.0	2.0	15	#		EM	T059		
69	1711-1802	200m	35	∅	\$	5.0	2.0	190	7.0	180	∅	4.0m#	4.0	2.0	15	#		EM	T059		
70	1717-0402	200m	35	∅	\$	5.0	2.0	50	7.0	40	∅	4.0m#	4.0	2.0	15	#		EM	T062		
71	1717-0405	200m	35	∅	\$	5.0	2.0	50	7.0	40	∅	4.0m#	4.0	2.0	15	#		EM	T062		
72	1717-0602	200m	35	∅	\$	5.0	2.0	70	7.0	60	∅	4.0m#	4.0	2.0	15	#		EM	T062		
73	1717-0605	200m	35	∅	\$	5.0	2.0	70	7.0	60	∅	4.0m#	4.0	2.0	15	#		EM	T062		
74	1717-0802	200m	35	∅	\$	5.0	2.0	90	7.0	80	∅	4.0m#	4.0	2.0	15	#		EM	T062		
75	1717-0805	200m	35	∅	\$	5.0	2.0	90	7.0	80	∅	4.0m#	4.0	2.0	15	#		EM	T062		
76	1717-1002	200m	35	∅	\$	5.0	2.0	110	7.0	100	∅	4.0m#	4.0	2.0	15	#		EM	T062		
77	1717-1005	200m	35	∅	\$	5.0	2.0	110	7.0	100	∅	4.0m#	4.0	2.0	15	#		EM	T062		
78	1717-1202	200m	35	∅	\$	5.0	2.0	130	7.0	120	∅	4.0m#	4.0	2.0	15	#		EM	T062		
79	1717-1205	200m	35	∅	\$	5.0	2.0	130	7.0	120	∅	4.0m#	4.0	2.0	15	#		EM	T06		

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	TYPE No.	1 MAX. THERM. RES. J to C (W)	MAX. FREE AIR @ 25°C (W)	M T A X E M P	ABSOLUTE MAX. RATINGS @25°C					MAX. I _{cb} @ 25°C (A)	hfe		MIN	MAX	fae (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION		L E A D E
					I _c (A)	I _b (A)	V _{cb} (V)	V _{eb} (V)	V _{ce} (V)		I _{cb} (A)	I _c (A)						STRUCTURE	DWG. No.	
1	ST403	250m	25	5A			45	5.0	45	20m	120	2.0	15	40	70M	3.0	250n	D	MS2	
2#	BLY25	300m	30	5J	5.0		120	8.0	80	50u	5.0	100	300	70M	3.0		DPE	TO59		
3#	BLY26	300m	30	5J	5.0		100	8.0	80	50u	5.0	100	300	70M	3.0		DPE	TO59		
4#	CP430	300m	30	5J	5.0		100	8.0	60	10u	5.0	40	120	140M			DPE	TO3		
5#	CP431	300m	30	5J	5.0		100	8.0	60	10u	5.0	100	300	150M			DPE	TO3	CØ	
6#	CP432	300m	30	5J	5.0		120	8.0	80	10u	5.0	40	120	140M			DPE	TO3	CØ	
7#	CP433	300m	30	5J	5.0		120	8.0	80	10u	5.0	100	300	150M			DPE	TO3	CØ	
8	AS22	303m	45	5J	5.0		60	6.0	35	50u	0.0	30	100	80M			PE	TO3		
9	AS23	303m	45	5J	5.0		90	6.0	60	50u	0.0	30	100	80M			PE	TO3		
10#	3TE230	322m	48	5J	4.0		80	4.0	80	10u	5.0	10	60	1.0M	3.0		DPE	TO3	DØ	
11	2N1470	333m	55	5J	1.0	1.5	60	3.0	60	5.0m	5.0	10	15	1.0M			PD	TO3		
12	2N1857	333m		5J	2.0		60	3.0	60	5.0m	5.0	10	15	1.0M			PD	MS3		
13	3TX003	333m	53	#J	5.0		100	5.0	80	10m	5.0	10		15k	400m		PEA	TO3	CØ	
14	3TX004	333m	53	#C	5.0		60	3.0	50	10m	5.0	10		15k	400m		PEA	TO3	CØ	
15	B3556	333m	20	5S	5.0		90	8.0	60	100m	1.0	40	120	20M	250m		PE	TO59		
16	B3557	333m	20	5S	5.0		120	8.0	80	100m	1.0	40	120	20M	250m		PE	TO59		
17	B3558	333m	20	5S	5.0		150	8.0	100	100m	1.0	40	120	20M	250m		PE	TO59		
18	B3559	333m	20	5S	5.0		60	7.0	40	100m	1.0	20	60	30M	250m		PE	TO59		
19	B3560	333m	30	5S	5.0		80	8.0	60	100m	1.0	20	60	30M	250m		PE	TO59		
20	B3561	333m	30	5S	5.0		100	8.0	80	100m	1.0	20	60	30M	250m		PE	TO59		
21	B3562	333m	30	5S	5.0		60	8.0	40	100m	1.0	40	120	40M	250m		PE	TO59		
22	B3563	333m	30	5S	5.0		80	8.0	60	100m	1.0	40	120	40M	250m		PE	TO59		
23	B3564	333m	30	5S	5.0		100	8.0	80	100m	1.0	40	120	40M	250m		PE	TO59		
24	B3565	333m	30	5S	5.0		60	7.0	40	100m	1.0	100	300	50M	250m		PE	TO59		
25	B3566	333m	30	5S	5.0		80	8.0	60	100m	1.0	100	300	50M	250m		PE	TO59		
26	B3567	333m	30	5S	5.0		100	8.0	80	100m	1.0	100	300	50M	250m		PE	TO59		
27	B3631	333m	30	5S	5.0		80	8.0	60	100m	1.0	20	60	30M	250m		PE	TO59		
28	B3632	333m	30	5S	5.0		80	8.0	60	100m	1.0	40	120	50M	250m		PE	TO59		
29	B3633	333m	30	5S	5.0		100	8.0	80	100m	1.0	20	60	30M	250m		PE	TO59		
30	B3634	333m	30	5S	5.0		100	8.0	80	100m	1.0	40	120	50M	250m		PE	TO59		
31	BR100C	333m	35	5J	10	2.0	60	3.0	40	1.0m	5.0	30	40	200	300m		PE	TO59	A	
32	BR100F	333m	35	5J	10	2.0	60	3.0	40	1.0m	5.0	30	40	200	300m		PE	TO59	A	
33	BR101C	333m	35	5J	10	2.0	90	3.0	75	1.0m	5.0	30	40	150	300m		PE	TO59	A	
34	BR101F	333m	35	5J	10	2.0	90	3.0	75	1.0m	5.0	30	40	150	300m		PE	TO59	A	
35	BR200B	333m	50	5J	20	8.0	60	3.0	40	1.0m	5.0	10	40	150	200m		PE	MT50a	AØ	
36	BR201B	333m	50	5J	20	8.0	90	3.0	75	1.0m	5.0	10	40	150	200m		PE	MT50a	AØ	
37	NS92101	333m	50	5S	5.0	.50	200	5.0	200	.01m	2.0	20	#	100M	1.5	.08u	PE	TO61		
38	NS92111	333m	50	5S	5.0	.50	250	5.0	250	.01m	2.0	20	#	100M	1.5	.08u	PE	TO61		
39	STC1001	333m		5S			100			4.0	2.0	1.5		1.0M			PD			
40	2N1210/1	400m		5S	5.0		60	8.0	60	20m	120	2.0	15	75	2.5M	1.0	.90u	D	MS3	
41	2N1210/1	400m		5S	5.0		80	8.0	70	20m	120	2.0	15	75	2.5M	1.0	.90u	D	MS3	
42	2N1616/1	400m		5S	5.0		60	8.0	60	10m	120	2.0	15	75	2.5M	1.0	.90u	D	MT10	
43	2N1617/1	400m		5S	5.0		80	8.0	70	10m	120	2.0	15	75	2.5M	1.0	.90u	D	MT10	
44	2N1618/1	400m		5S	5.0		100	8.0	80	10m	120	2.0	15	75	2.5M	1.0	.90u	D	MT10	
45	2N1619	400m		5S	5.0					1.0	2.0	35	Ø	15k			D			
46	2N1620/1	400m		5S	5.0		100	8.0	80	10m	120	2.0	15	75	2.5M	1.0	.90u	D	MS3	
47	3TE130	400m	60	5J	5.0	2.0	90	4.0	80	10m	5.0	30	80	180M	200m		PE	TO3		
48	3TE220	400m	60	5J	5.0	2.0	80	4.0	80	10u	5.0	4.4	60	150k	200m		DPE	TO3		
49	3TX002	400m	70	#J	5.0		100	5.0	80	10u	5.0	10	30	150k	200m		PEA	TO3	CØ	
50	4JD20A7	400m	2.0	5J	2.0	1.0	50	8.0	30	10u	5.0	1.0	20	10M	1.2		DM	MT47		
51	4JD20A8	400m	2.0	5J	2.0	1.0	50	8.0	30	10u	5.0	1.0	20	10M	1.2		DM	MT47		
52	20A10	400m	30	5J	2.0	1.0	125	8.0	80	1.0m	5.0	1.0	90	180	10M	1.0		DM	TO59	
53	20A11	400m	30	5J	2.0	1.0	100	8.0	60	1.0m	5.0	1.0	90	180	10M	1.0		DM	TO59	
54	20A12	400m	30	5J	5.0	1.0	175	15	120	5.0m	5.0	5.0	30	90	10M	1.0		DM	TO59	
55	BR100E	400m	35	5J	10	2.0	60	3.0	40	1.0m	5.0	3.0	40	200	300m		PE	MT50a	AØ	
56	BR101E	400m	35	5J	10	2.0	90	3.0	75	1.0m	5.0	3.0	40	150	300m		PE	MT50a	AØ	
57	BR200E	400m	50	5J	20	8.0	60	3.0	40	1.0m	5.0	10	40	150	200m		PE	MT50a	AØ	
58	BR201E	400m	50	5J	20	8.0	90	3.0	75	1.0m	5.0	10	40	150	200m		PE	MT50a	AØ	
59#	DT4110	400m	30	5S	1.5	300m	45	3.0	30	1.0m	6.0	1.5	15	45	500k	1.5		D	TO3	
60#	DT4111	400m	30	5S	1.5	300m	80	3.0	60	1.0m	6.0	1.5	15	45	500k	1.5		D	TO3	
61#	DT4112	400m	30	5S	1.5	300m	120	3.0	100	1.0m	6.0	1.5	15	45	500k	1.5		D	TO3	
62#	DT4120	400m	30	5S	1.5	300m	45	3.0	30	1.0m	6.0	1.5	30	90	500k	1.5		D	TO3	
63#	DT4121	400m	30	5S	1.5	300m	80	3.0	60	1.0m	6.0	1.5	30	90	500k	1.5		D	TO3	
64	STC1035	400m		5S	7.5		30		30	4.0	2.0	10	↑		.75				TO3	
65	STC1035A	400m		5S	7.5		30		30	4.0	2.0	10	↑		.75				TO3	
66	STC1036	400m		5S	7.5		30		30	4.0	2.0	10	↑		.50				TO3	
67	STC1036A	400m		5S	7.5		30		30	4.0	2.0	10	↑		.50				TO3	
68#	XC723	400m		5S	6.0	3.0	60	10	40	.02m	4.0	1.5	15	45	500k	2.0	1.0u	D	TO3	
69	JAN2N1511	429m	75	5J	6.0	3.0	60	10	40	25u	4.0	1.5	15	45	500k	2.0		Δ	TO67	
70	JAN2N1512	429m	75	5J	6.0	3.0	100	10	55	25u	4.0	1.5	15	45	500k	2.0		Δ	TO67	
71	JAN2N1513	429m	75	5J	6.0	3.0	60	10	40	25u	4.0	1.5	15	45	500k	2.0		Δ	TO67	
72	JAN2N1514	429m	75	5J	6.0	3.0	100	10	55	25u	4.0	1.5	15	45	500k	2.0		Δ	TO67	
73	AMF104	429m	75	5J	4.0		30	.50	30	150	1.0	10	50	1.0M	5.0		MEA	TO3		
74	AMF105	429m	75	5J	4.0		60	.50	60	150	1.0	10	50	1.0M	5.0		MEA	TO3		
75	AMF106	429m	75	5J	4.0		100	.50	100	150	1.0	10	50	1.0M	5.0		MEA	TO3		
76	AMF115	429m	75	5J	7.5		60	.50	60	150	2.0	10	50	1.0M	5.0		MEA	TO3		
77	AMF116	429m	75	5J	7.5		60	.50	60	150	2.0	10	50	1.0M	1.5		MEA	TO3		
78	AMF117	429m	75	5J	4.0		55	.50	55	150	1.0	10	50	1.0M	5.0		MEA	TO3		
79	AMF117A	429m	75	5J	4.0		55	.50	55	150	1.0</									

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	TYPE No.	MAX. THERM. RES. J to C (W)	MAX. FREE AIR @ 25°C (W)	M T A E M P	ABSOLUTE MAX. RATINGS @ 25°C					MAX. I _{cb0} @ MAX V _{cb} @ 25°C (A)	BIAS hfe		MIN	MAX	f _{ae} (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION	L C O D E
					I _c (A)	I _b (A)	V _{cb0} (V)	V _{eb0} (V)	V _{ce0} (V)		V _{cb} (V)	I _c (A)							
1	AMF101	476m	85	\$J	4.0		30	50	30	150	1.0	10	50	1.0M†	5.0		MEΔ	MS3	
2	AMF102	476m	85	\$J	4.0		60	50	60	150	1.0	10	50	1.0M†	5.0		MEΔ	MS3	
3	AMF103	476m	85	\$J	4.0		100	50	100	150	1.0	10	50	1.0M†	5.0		MEΔ	MS3	
4	AMF107	476m	85	\$J	4.0		30	50	30	150	1.0	10	50	1.5M†	5.0		MEΔ	MT10	
5	AMF108	476m	85	\$J	4.0		60	50	60	150	1.0	10	50	1.5M†	5.0		MEΔ	MT10	
6	AMF109	476m	85	\$J	4.0		100	50	100	150	1.0	10	50	1.5M†	5.0		MEΔ	MT10	
7	AMF110	476m	85	\$J	4.0		60	50	60	150	1.0	10	50	1.5M†	1.5		MEΔ	MT10	
8	AMF111	476m	85	\$J	7.5		60	50	60	150	2.0	10	50	1.5M†	5.0		MEΔ	MS3	
9	AMF112	476m	85	\$J	7.5		60	50	60	150	2.0	10	50	1.0M†	5.0		MEΔ	MS3	
10	AMF113	476m	85	\$J	7.5		60	50	60	150	2.0	10	50	1.0M†	1.5		MEΔ	MT10	
11	AMF114	476m	85	\$J	7.5		60	50	60	150	2.0	10	50	1.5M†	1.5		MEΔ	MS3	
12	AMF121	476m	85	\$J	4.0		55	50	55	150	1.0	10	50	1.0M†	5.0		MEΔ	MS3	
13	AMF121A	476m	85	\$J	4.0		55	50	55	150	1.0	10	50	1.0M†	800m		MEΔ	MS3	
14	AMF122	476m	85	\$J	4.0		45	50	45	150	1.0	10	50	1.0M†	5.0		MEΔ	MS3	
15	AMF122A	476m	85	\$J	4.0		45	50	45	150	1.0	10	50	1.0M†	800m		MEΔ	MS3	
16	AMF123	476m	85	\$J	4.0		35	50	35	150	1.0	10	50	1.0M†	5.0		MEΔ	MS3	
17	AMF123A	476m	85	\$J	4.0		35	50	35	150	1.0	10	50	1.0M†	800m		MEΔ	MS3	
18	AMF124	476m	85	\$J	4.0		25	50	25	150	1.0	10	50	1.0M†	5.0		MEΔ	MS3	
19	AMF124A	476m	85	\$J	4.0		25	50	25	150	1.0	10	50	1.0M†	800m		MEΔ	MS3	
20	F101	476m	85	\$J	4.0		30	50	30	150	1.0	10	50	1.0M†	5.0		MEΔ	MS3	
21	F102	476m	85	\$J	4.0		60	50	60	150	1.0	10	50	1.0M†	5.0		MEΔ	MS3	
22	F103	476m	85	\$J	4.0		100	50	100	150	1.0	10	50	1.0M†	5.0		MEΔ	MS3	
23	F107	476m	85	\$J	4.0		30	50	30	150	1.0	10	50	1.5M†	5.0		MEΔ	MT10	
24	F108	476m	85	\$J	4.0		60	50	60	150	1.0	10	50	1.5M†	5.0		MEΔ	MT10	
25	F109	476m	85	\$J	4.0		100	50	100	150	1.0	10	50	1.5M†	5.0		MEΔ	MT10	
26	F110	476m	85	\$J	4.0		60	50	60	150	1.0	10	50	1.5M†	1.5		MEΔ	MT10	
27	F111	476m	85	\$J	7.5		60	50	60	150	2.0	10	50	1.5M†	5.0		MEΔ	MT10	
28	F112	476m	85	\$J	7.5		60	50	60	150	2.0	10	50	1.0M†	5.0		MEΔ	MS3	
29	F113	476m	85	\$J	7.5		60	50	60	150	2.0	10	50	1.0M†	1.5		MEΔ	MT10	
30	F114	476m	85	\$J	7.5		60	50	60	150	2.0	10	50	1.5M†	1.5		MEΔ	MS3	
31	F121	476m	85	\$J	4.0		55	50	55	150	1.0	10	50	1.0M†	5.0		MEΔ	MS3	
32	F121A	476m	85	\$J	4.0		55	50	55	150	1.0	10	50	1.0M†	800m		MEΔ	MS3	
33	F122	476m	85	\$J	4.0		45	50	45	150	1.0	10	50	1.0M†	5.0		MEΔ	MS3	
34	F122A	476m	85	\$J	4.0		45	50	45	150	1.0	10	50	1.0M†	800m		MEΔ	MS3	
35	F123	476m	85	\$J	4.0		35	50	35	150	1.0	10	50	1.0M†	5.0		MEΔ	MS3	
36	F123A	476m	85	\$J	4.0		35	50	35	150	1.0	10	50	1.0M†	800m		MEΔ	MS3	
37	F124	476m	85	\$J	4.0		25	50	25	150	1.0	10	50	1.0M†	5.0		MEΔ	MS3	
38	F124A	476m	85	\$J	4.0		25	50	25	150	1.0	10	50	1.0M†	800m		MEΔ	MS3	
39	ST440	476m	60	\$S	2.0		60	50	60	150	1.0	10	25	4.0M		1.8u	D	MT10	
40	ST450	476m	60	\$S	2.0		60	50	60	150	1.0	10	25	4.0M		1.8u	D	MT10	
41	ST7120	476m		\$S	3.0		45	80	35	20m	12	20	80		5.0		D	MS3	
42	ST7130	476m		\$S	3.0		45	80	35	10m	12	20	80		5.0		D	MT10	
43	STC1101	476m		\$S	6.0	3.0	60	10	40	4.0	1.5	10	50	1.0M†	2.0		D		
44	STC1102	476m		\$S	6.0	3.0	100	10	55	4.0	1.5	10	50	1.0M†	6.0		D		
45	STC1103	476m		\$S	6.0	3.0	60	10	40	4.0	1.5	25	75	1.0M†	2.7		D		
46	STC1104	476m		\$S	6.0	3.0	100	10	55	4.0	1.5	25	75	1.0M†	.67		D		
47	STC1105	476m		\$J	7.5		30	30	30	4.0	2.0	10	†		.75			MS3	
48	STC1105A	476m		\$J	7.5		60	60	60	4.0	2.0	10	†		.75			MS3	
49	STC1106	476m		\$J	7.5		30	30	30	4.0	5.0	10	†		.50			MS3	
50	STC1106A	476m		\$J	7.5		60	60	60	4.0	5.0	10	†		.50			MS3	
51	TT500	476m		\$J	2.0		60	10	60	10m	150	45	135	25MΔ			D	MT10	
52	TT501	476m		\$J	2.0		80	10	80	10m	150	45	135	25MΔ			D	MT10	
53	TT502	476m		\$J	2.0		100	10	100	10m	150	45	135	25MΔ			D	TO3	
54#	2SC492	478m	50	\$J	5.0		110	50	110	10m	5.0	60	†	20M\$			ME		
55	2N389/1	480m		\$S	3.0		60	10	60	150	1.0	12	60	2.5M†	5.0	900n		MS3	
56	2N389A/1	480m		\$S	3.0		60	10	60	4.0	1.0	12	60	2.5M†	750m	900n		MS3	
57	2N424/1	480m		\$S	3.0		80	10	80	150	1.0	12	60	2.5M†	900n	900n		MS3	
58	2N424A/1	480m		\$S	3.0		80	10	80	4.0	1.0	12	60	2.5M†	750m	900n		MS3	
59	2N1616A/1	480m		\$S	7.5		60	10	60	10m	4.0	5.0	10	2.5M†	500m	900n		MT10	
60	2N1617A/1	480m		\$S	7.5		80	10	70	10m	4.0	5.0	10	2.5M†	500m	900n		MT10	
61	2N1618A/1	480m		\$S	7.5		100	10	80	10m	4.0	5.0	10	2.5M†	500m	900n		MT10	
62	2N1722/1	480m		\$S	7.5		120	10	80	10m	150	20	90	2.5M†	500m	900n		MS3	
63	2N1724/1	480m		\$S	7.5		120	10	80	10m	150	20	90	2.5M†	500m	900n		MT10	
64#	2SC101	480m		\$J	2.0			5.5		3.0m	10	500m	16	†			ME	MD10	
65	2N1660†	485m	85	\$J	2.0		60	10	60	150	1.0	45	135	25MΔ	4.0	110n	PDA	MS3	
66	2N1661†	485m	85	\$J	2.0		80	10	80	150	1.0	45	135	25MΔ	4.0	110n	PDA	MS3	
67	2N1662†	485m	85	\$J	2.0		100	10	100	150	1.0	45	135	25MΔ	4.0	110n	PDA	MS3	
68	2N1722A/1	485m	85	\$C	7.5		180	120	120	5.0	5.0	20	20	300m	300m			TO61	
69	2N1724A/1	485m	85	\$C	7.5		180	120	120	5.0	5.0	20	20	300m	300m			TO61	
70	2N1894	485m	85	\$J	2.0		60	10	60	150	1.0	12	60	25MΔ	5.0		DA	MT16	
71	2N1895	485m	85	\$J	2.0		80	10	80	150	1.0	12	60	25MΔ	10		DA	MT16	
72	2N1896	485m	85	\$J	2.0		60	10	60	150	1.0	45	135	25MΔ	4.0	110n	DA	MT16	
73	2N1897	485m	85	\$J	2.0		80	10	80	150	1.0	45	135	25MΔ	4.0	110n	DA	MT16	
74	2N1898	485m	85	\$J	2.0		100	10	100	150	1.0	45	135	25MΔ	4.0	110n	DA	MT16	
75#	2S720	500m		\$A	1.0	.50		5.0	120	10m	100	50	30	3M†			D	MS3	
76#	2SC21	500m		\$J	2.0		60	5.5	60	1.0m	10	1.0	25	†			MEΔ	TO3	
77#	2SC244	500m	75	\$J	6.5		60	5.0	60	50m	100	1.0	15	35	35M†	500m		ME	TO3
78#	2SC245	500m	75	\$J	6.5		120	5.0	120	20m	100	1.0	15	35	35M†	500m		ME	TO3
79#	2SC246	500m	75	\$J	6.5		180	5.0	180	20m	100	1.0	15	35	35M†	500m		ME	TO3
80#	180T2	500m	85	\$J	6.0	3.0	60	10	60	4.0	2.0	15	#	180	10M\$		ME	TO3	
81#	181T2	500m	85	\$J	6.0	3.0	100	10	90	4.0	2.0	15	#	180	10M\$		ME	TO3	
82#	182T2	500m	85	\$J	6.0	3.0	200	10	140	4.0	2.0	15	#	180	10M\$		ME	TO3	
83#	183T2	500m	85	\$J	6.0	3.0	300	10	180	4.0	2.0	15	#	180	10M\$		ME	TO3	
84#	184T2	500m	85	\$J															

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE
& (2) TYPE No.

LINE No.	TYPE No.	MAX. THERM. RES. J to C (W)	MAX. FREE AIR @ 25°C (W)	MAX. P _C (W)	M A X P	ABSOLUTE MAX. RATINGS @25°C					MAX. I _{CO} @ MAX V _{CB} @25°C (A)	BIAS hfe		MIN	MAX	f _{ae} (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION	L O A D E	
						I _C (A)	I _B (A)	V _{CB} (V)	V _{EB} (V)	V _{CE} (V)		V _{CB} (V)	I _C (A)								
1	AMF210A	526m	80 ∅	∅C	8.0			50	100 ∅	150 ∅	5.0	150 ∅	5.0	10	15M†	800m		ME	MD19		
2	AMF210B	526m	80 ∅	∅C	8.0			50	100 ∅	150 ∅	5.0	150 ∅	5.0	10	15M†	800m		ME	MD19		
3	AMF210C	526m	80 ∅	∅C	8.0			50	100 ∅	150 ∅	5.0	150 ∅	5.0	10	15M†	800m		ME	MD19		
4	STC389	556m∅							60			4.0∅	1.5		2.0M†			D			
5	2N3577	564m	85 ∅	∅S	2.0	500m	100	10	80	100u#	150 ∅	1.0	12	60	10MΔ	5.2		EA	TO53	∅	
6	2N2403	571m∅	8.0 ∅	∅S	1.0			60	5.0	60 ∅	2.5∅	600m	20	60	150M†	2.5	20n	EA	TO5		
7	2N2404	571m∅	8.0 ∅	∅S	1.0			60	5.0	60 ∅	50u	2.5∅	600m	40	120	150M†	2.5	20n	EA	TO5	
8	AMF201	625m	85 ∅	∅C	13			50	30 ∅	30 ∅	150 ∅	1.0	10	1.0M†	400m		ME	MD19			
9	AMF201A	625m	85 ∅	∅C	13			50	30 ∅	30 ∅	150 ∅	1.0	10	1.0M†	400m		ME	MD19			
10	2N451	666m	85 ∅	∅J	5.0	500m	65	10	65	20m	100 ∅	1.0	10	10	400kt	4.0		D	MT4		
11	2N452	666m	85 ∅	∅J	5.0	500m	65	10	65	50m	200 ∅	2.0	8.0	20	400kt	2.5		Δ	MT4		
12	2N453	666m	85 ∅	∅J	2.0	500m	30	10	30	20m	200 ∅	1.0	20	30 ∅	400kt	6.0		D	MT4		
13	2N454	666m	85 ∅	∅J	2.0	500m	65	10	65	20m	200 ∅	1.0	8.0	15 ∅	400kt	1.0	1.0u	D	MT4		
14	2N5049†	666m	100 ∅	∅J	10	2.0	60	14	50	1.0m#	4.0∅	1.0	15	60	10M†	250m		D	TO61	A∅	
15	6B10	666m	50 ∅	∅J	10	5.0	175	15	120	10m#	150 ∅	1.0	30	90	10M†	500m		DM	TO61		
16	1713-0402	666m	115 ∅	∅J	5.0	2.0	50	7.0	40	4.0m#	4.0∅	2.0	15	#	40MΔ			EM	TO3		
17	1713-0405	666m	115 ∅	∅J	5.0	2.0	50	7.0	40	4.0m#	4.0∅	5.0	15	#	40MΔ			EM	TO3		
18	1713-0602	666m	115 ∅	∅J	5.0	2.0	70	7.0	60	4.0m#	4.0∅	2.0	15	#	40MΔ			EM	TO3		
19	1713-0805	666m	115 ∅	∅J	5.0	2.0	70	7.0	60	4.0m#	4.0∅	5.0	15	#	40MΔ			EM	TO3		
20	1713-0802	666m	115 ∅	∅J	5.0	2.0	90	7.0	80	4.0m#	4.0∅	2.0	15	#	40MΔ			EM	TO3		
21	1713-0805	666m	115 ∅	∅J	5.0	2.0	90	7.0	80	4.0m#	4.0∅	5.0	15	#	40MΔ			EM	TO3		
22	1713-1002	666m	115 ∅	∅J	5.0	2.0	110	7.0	100	4.0m#	4.0∅	2.0	15	#	40MΔ			EM	TO3		
23	1713-1005	666m	115 ∅	∅J	5.0	2.0	110	7.0	100	4.0m#	4.0∅	5.0	15	#	40MΔ			EM	TO3		
24	1713-1202	666m	115 ∅	∅J	5.0	2.0	130	7.0	120	4.0m#	4.0∅	2.0	15	#	40MΔ			EM	TO3		
25	1713-1205	666m	115 ∅	∅J	5.0	2.0	130	7.0	120	4.0m#	4.0∅	5.0	15	#	40MΔ			EM	TO3		
26	1713-1402	666m	115 ∅	∅J	5.0	2.0	150	7.0	140	4.0m#	4.0∅	2.0	15	#	40MΔ			EM	TO3		
27	1713-1405	666m	115 ∅	∅J	5.0	2.0	150	7.0	140	4.0m#	4.0∅	5.0	15	#	40MΔ			EM	TO3		
28	1713-1602	666m	115 ∅	∅J	5.0	2.0	170	7.0	160	4.0m#	4.0∅	2.0	15	#	40MΔ			EM	TO3		
29	1713-1605	666m	115 ∅	∅J	5.0	2.0	170	7.0	160	4.0m#	4.0∅	5.0	15	#	40MΔ			EM	TO3		
30	1713-1802	666m	115 ∅	∅J	5.0	2.0	190	7.0	180	4.0m#	4.0∅	2.0	15	#	40MΔ			EM	TO3		
31	A1381	666m	100 ∅	∅J	10			100	4.0	80 ∅	1.0	10	Δ	40	50MΔ			PL	TO36		
32	B148005†	666m	100 ∅	∅S	15	4.0		7.0	60	7.0	5.0	2.0	4.0	160 #	60MΔ	100m	200n		PL	TO61	A∅
33	TIX155	666m\$	50 ∅	∅J	10	1.0	120	15	80	5.0m	5.0∅	2.0	1.5k	10k#	20k\$	500m		PME	TO53		
34#	2N4519	667m	50 ∅	∅J	5.0			110	5.0	100	10m∅	5.0	2.0	50	20k\$			ME	TO3		
35#	2SC520	667m	50 ∅	∅J	5.0			70	5.0	80	10m∅	5.0	1.0	50	20k\$			ME	TO3		
36#	2SC521	667m	50 ∅	∅J	5.0			40	5.0	50	10m∅	5.0	1.0	50	20k\$			ME	TO3		
37	CTP1136	667m		∅J				60	20		5.0	5.0						A			
38#	ST66†	667m∅	80	∅J	6.0	3.0	60	10	40	1.0m	4.0	1.5	10	80	25kt	1.0	1.3u	D	TO3		
39#	ST610†	667m∅	80	∅J	6.0	3.0	100	10	55	10m	4.0	1.5	10	80	25kt	1.0	1.3u	D	TO3		
40#	ST615†	667m∅	80	∅J	6.0	3.0	150	10	70	10m	4.0	1.5	10	80	25kt	1.0	1.3u	D	TO3		
41	156-04	684m	120 ∅	∅J	8.0	3.0	50	10	40	2.0m#	4.0∅	5.0	15		1.0MΔ	200m		D	TO3		
42	156-06	684m	120 ∅	∅J	8.0	3.0	70	10	60	2.0m#	4.0∅	5.0	15		1.0MΔ	200m		D	TO3		
43	156-08	684m	120 ∅	∅J	8.0	3.0	90	10	80	2.0m#	4.0∅	5.0	15		1.0MΔ	200m		D	TO3		
44	156-10	684m	120 ∅	∅J	8.0	3.0	110	10	100	2.0m#	4.0∅	5.0	15		1.0MΔ	200m		D	TO3		
45	2N2902	729m	40 ∅	∅S	750m	500m	120	10	120		10	50m	30	90 #	1.0MΔ	15		D	MT5		
46	2N1675	800m	100 ∅	∅J	10			5.0	70 ∅		100 ∅	5.0	2.0	25	44 ∅	55M†	500m	180n∅	D	TO32	
47#	2SC102	800m∅		∅J	7.0			5.0	70 ∅	45m∅	10	500m	10	150	60MΔ			ME	TO36		
48#	40444	800m	140 ∅	∅J	20	10	120	5.0	60	20mΔ	5.0	2.0	30	150	60MΔ			F	TO3		
49#	M5A	800m	100		5.0	3.0	50	4.0	30	10m∅	5.0	5.0	10	50	500k	200m	700n				
50#	M5B	800m	100		5.0	3.0	100	4.0	60	10m∅	5.0	5.0	10	50	500k	200m	700n				
51#	M5C	800m	100		5.0	3.0	200	4.0	140	10m∅	5.0	5.0	10	50	500k	200m	700n				
52#	M5D	800m	100		5.0	3.0	300	4.0	200	10m∅	5.0	5.0	10	50	500k	200m	700n				
53#	M10A	800m	100		5.0	3.0	100	4.0	30	10m∅	5.0	10	10	50	500k	200m	700n				
54#	M10B	800m	100		5.0	3.0	100	4.0	60	10m∅	5.0	10	10	50	500k	200m	700n				
55#	M10C	800m	100		5.0	3.0	200	4.0	140	10m∅	5.0	10	10	50	500k	200m	700n				
56#	M10D	800m	100		5.0	3.0	300	4.0	200	10m∅	5.0	10	10	50	500k	200m	700n				
57#	SE7030	800m		∅J	400m			300	70	300	1.0u\$	1.0∅	50m	40	240 #	30MΔ			DPL	MD10e	C∅
58	130-04	833m#	120 ∅	∅J	8.0	3.0	50	10	40	10m#	4.0∅	5.0	15	#	1.0MΔ	200m	1.6u	D	MT1		
59	130-06	833m#	120 ∅	∅J	8.0	3.0	70	10	60	10m#	4.0∅	5.0	15	#	1.0MΔ	200m	1.6u	D	MT1		
60	130-08	833m#	120 ∅	∅J	8.0	3.0	90	10	80	10m#	4.0∅	5.0	15	#	1.0MΔ	200m	1.6u	D	MT1		
61	130-10	833m#	120 ∅	∅J	8.0	3.0	110	10	100	10m#	4.0∅	5.0	15	#	1.0MΔ	200m	1.6u	D	MT1		
62	2N2589	847m	85 ∅	∅A	7.0			150	25	150	2.0m	4.0∅	7.0	17	51	1.0MΔ		Δ	MT18		
63	1726-0405	854m	150 ∅	∅J	10			50	7.0	40	4.0m#	4.0∅	5.0	15	#	40MΔ			EM	TO61	
64	1726-0410	854m	150 ∅	∅J	10			50	7.0	40	4.0m#	4.0∅	10	20	#	40MΔ			EM	TO61	
65	1726-0605	854m	150 ∅	∅J	10			70	7.0	60	4.0m#	4.0∅	5.0	15	#	40MΔ			EM	TO61	
66	1726-0610	854m	150 ∅	∅J	10			70	7.0	60	4.0m#	4.0∅	10	20	#	40MΔ			EM	TO61	
67	1726-0805	854m	150 ∅	∅J	10			90	7.0	80	4.0m#	4.0∅	5.0	15	#	40MΔ			EM	TO61	
68	1726-0810	854m	150 ∅	∅J	10			90	7.0	80	4.0m#	4.0∅	10	20	#	40MΔ			EM	TO61	
69	1726-1005	854m	150 ∅	∅J	10			110	7.0	100	4.0m#	4.0∅	5.0	15	#	40MΔ			EM	TO61	
70	1726-1010	854m	150 ∅	∅J	10			110	7.0	100	4.0m#	4.0∅	10	20	#	40MΔ			EM	TO61	
71	1726-1205	854m	150 ∅	∅J	10			130	7.0	120	4.0m#	4.0∅	5.0	15	#	40MΔ			EM	TO61	
72	1726-1210	854m	150 ∅	∅J	10			130	7.0	120	4.0m#	4.0∅	10	20	#	40MΔ			EM	TO61	
73	1726-1405	854m	150 ∅	∅J	10			150	7.0	140	4										

11. SILICON NPN - HIGH POWER TRANSISTORS

IN ORDER OF (1) MAX THERMAL RESISTANCE & (2) TYPE No.

LINE No.	TYPE No.	MAX. THERM. RES. J to C (W)	MAX. FREE AIR @ 25°C (W)	M A X P	ABSOLUTE MAX. RATINGS @25°C					MAX. I _{cb} @ 25°C (A)	hfe		MIN	MAX	f _{ae} (Hz)	MAX. SAT. RES. (Ω)	tr (s)	DESCRIPTION	L C O D E
					I _c (A)	I _b (A)	V _{cb} (V)	V _{eb} (V)	V _{ce} (V)		V _{cb} (V)	V _{eb} (V)							
1#	XT2D	1.0	200	\$	5.0		500	5.0	350	10m	5.0	5.0	10	50	75k	100m		D	TO36
2	153-05	1.3	200	\$	7.5	3.0	75	15	50		4.0	1.5	15	15		870m		F	MT24
3	153-07	1.3	200	\$	7.5	3.0	95	15	70		4.0	1.5	15	15		870m	3.0u	F	MT24
4	153-09	1.3	200	\$	7.5	3.0	115	15	90		4.0	1.5	15	15		870m	3.0u	F	MT24
5	154-05	1.3	200	\$	7.5	3.0	75	15	70		4.0	1.5	25	25		830m	3.0u	F	MT24
6	154-07	1.3	200	\$	7.5	3.0	95	15	90		4.0	1.5	25	25		830m	3.0u	F	MT24
7	154-09	1.3	200	\$	7.5	3.0	115	15	90		4.0	1.5	25	25		830m	3.0u	F	MT24
8	DTS3704	1.3	200	\$	7.5	3.0	200	5.0	200		5.0	5.0	20	80	115k	1.6		F	TO41
9	DTS3704A	1.3	200	\$	7.5	3.0	200	5.0	200		5.0	5.0	20	80	115k	1.6		F	TO41
10	DTS3704B	1.3	200	\$	7.5	3.0	200	5.0	200		5.0	5.0	20	80	115k	1.6		F	TO41
11	DTS3705	1.3	200	\$	7.5	3.0	200	5.0	335	50m	5.0	5.0	20	80	115k	1.6		F	TO41
12	DTS3705A	1.3	200	\$	7.5	3.0	200	5.0	300	50m	5.0	5.0	25	75	110k	80		F	TO3
13	DTS3705B	1.3	200	\$	7.5	3.0	200	5.0	300	50m	5.0	5.0	25	75	110k	80		F	TO3
14	2N1018B/M	1.4	150	\$	7.5	5.0	100	25	100	1.0m	4.0	5.0	10	35	30k	500m	6.0u	F	MT1
15	2N1018C/M	1.4	150	\$	7.5	5.0	100	25	150	1.0m	4.0	5.0	10	35	30k	500m	6.0u	F	MT1
16	151-05	1.4	100	\$	6.0	3.0	100	50	50	10m	4.0	1.5	11	46		830m	10u	F	MT1
17	151-07	1.4	100	\$	6.0	3.0	140	25	70	10m	4.0	1.5	11	46		830m	10u	F	MT1
18	151-09	1.4	100	\$	6.0	3.0	180	25	90	10m	4.0	1.5	11	46		830m	10u	F	MT1
19	152-05	1.4	100	\$	6.0	3.0	100	25	50	10m	4.0	1.5	18	75		6.9	10u	F	MT1
20	152-07	1.4	100	\$	6.0	3.0	140	25	70	10m	4.0	1.5	18	75		6.9	10u	F	MT1
21	152-09	1.4	100	\$	6.0	3.0	180	25	90	10m	4.0	1.5	18	75		6.9	10u	F	MT1
22	AMF227	1.4	150	\$	7.5		50	50	30		4.0	2.0	10		20k	750m		ME	MT1
23	AMF227A	1.4	150	\$	7.5		50	50	60		4.0	2.0	10		20k	750m		ME	MT1
24	AMF227B	1.4	150	\$	7.5		50	50	100		4.0	2.0	10		20k	750m		ME	MT1
25	AMF227C	1.4	150	\$	7.5		50	50	150		4.0	2.0	10		20k	750m		ME	MT1
26	AMF228	1.4	150	\$	7.5		50	50	30		4.0	5.0	10		20k	500m		ME	MT1
27	AMF228A	1.4	150	\$	7.5		50	50	60		4.0	5.0	10		20k	500m		ME	MT1
28	AMF228B	1.4	150	\$	7.5		50	50	100		4.0	5.0	10		20k	500m		ME	MT1
29	AMF228C	1.4	150	\$	7.5		50	50	150		4.0	5.0	10		20k	500m		ME	MT1
30	AMF229	1.4	150	\$	4.0		50	50	30		4.0	1.0	10		20k	1.0		ME	MT1
31	AMF229A	1.4	150	\$	4.0		80	50	60		4.0	1.0	10		20k	1.0		ME	MT1
32	AMF229B	1.4	150	\$	4.0		100	50	100		4.0	1.0	10		20k	1.0		ME	MT1
33	AMF229C	1.4	150	\$	4.0		150	50	150		4.0	1.0	10		20k	1.0		ME	MT1
34	BSC1015	1.4	150	\$	7.5	5.0	10	10	30		4.0	2.0	10		20k	750m		DM	MT1
35	BSC1015A	1.4	150	\$	7.5	5.0	10	10	60		4.0	2.0	10		20k	750m		DM	MT1
36	BSC1015B	1.4	150	\$	7.5	5.0	10	10	100		4.0	2.0	10		20k	750m		DM	MT1
37	BSC1016	1.4	150	\$	7.5	5.0	10	10	30		4.0	5.0	10		20k	500m		DM	MT1
38	BSC1016A	1.4	150	\$	7.5	5.0	10	10	60		4.0	5.0	10		20k	500m		DM	MT1
39	BSC1016B	1.4	150	\$	7.5	5.0	10	10	100		4.0	5.0	10		20k	500m		DM	MT1
40	SEC1477	1.4					9.0	50				5.0				2.0			MT1
41	SEC1478	1.4					9.0	100				5.0				2.0			MT1
42	SEC1479	1.4					9.0	50				2.0				2.0			MT1
43	SEC1480	1.4					9.0	100				2.0				2.0			MT1
44#	STX5/3010	1.4	∅		5.0		100	9.0	100	5.0m	15	5.0	10	25	25	10M			
45#	STX5/3025	1.4	∅		5.0		30	2.0	30	5.0m	15	5.0	10	25	25	10M			
46#	STX5/5010	1.4	∅		5.0		50	2.0	50	5.0m	15	5.0	10	25	25	10M			
47#	STX5/5025	1.4	∅		5.0		50	2.0	50	5.0m	15	5.0	10	25	25	10M			
48#	STX5/8010	1.4	∅		5.0		80	2.0	60	5.0m	15	5.0	10	25	25	10M			
49#	STX5/8025	1.4	∅		5.0		80	2.0	60	5.0m	15	5.0	10	25	25	10M			
50#	STX5/7010	1.4	∅		5.0		70	2.0	70	5.0m	15	5.0	10	25	25	10M			
51#	STX5/7025	1.4	∅		5.0		70	2.0	70	5.0m	15	5.0	10	25	25	10M			
52	2N1421	1.6	30	\$	3.0	500m	60	10	60	10m	5.0	1.0	20	80	10M	3.0			MT10
53	2N1422	1.6	30	\$	3.0	500m	80	10	10	10m	5.0	1.0	20	80	10M	2.0			TO3
54#	L10A	1.6	200		10	10	100	4.0	30	10m	6.0	10	10	50	500k	10	.80		
55#	L10B	1.6	200		10	10	100	4.0	60	10m	6.0	10	10	50	500k	10	.80		
56#	L10C	1.6	200		10	10	200	4.0	140	10m	6.0	10	10	50	500k	10	.80		
57#	L10D	1.6	200		10	10	300	4.0	200	10m	6.0	10	10	50	500k	10	.80		
58#	L20A	1.6	200		20	10	100	4.0	30	10m	6.0	20	10	50	500k	10	.80		
59#	L20B	1.6	200		20	10	200	4.0	60	10m	6.0	20	10	50	500k	10	.80		
60#	L20C	1.6	200		20	10	300	4.0	140	10m	6.0	20	10	50	500k	10	.80		
61#	L20D	1.6	200		20	10	400	4.0	200	10m	6.0	20	10	50	500k	10	.80		
62#	L30A	1.6	200		30	10	50	4.0	30	10m	6.0	30	10	50	500k	10	.80		
63#	L30B	1.6	200		30	10	100	4.0	60	10m	6.0	30	10	50	500k	10	.80		
64#	L30C	1.6	200		30	10	200	4.0	140	10m	6.0	30	10	50	500k	10	.80		
65#	L30D	1.6	200		30	10	300	4.0	200	10m	6.0	30	10	50	500k	10	.80		
66#	SDD320	1.6	20		2.0	40	60	6.0	30	500u	15	50m	20	35	∅	30M	6.0		TO36
67	2N2743	2.0	200	\$	20	7.5	250	15	250		4.0	10	10		14k	150m	6.0u	∆	MT1
68	2N2744	2.0	200	\$	20	7.5	300	15	300		4.0	10	10		14k	150m	6.0u	∆	MT1
69	2N2749	2.0	200	\$	20	7.5	250	15	250		4.0	15	10		14k	100m	6.0u	∆	MT1
70	2N2750	2.0	200	\$	20	7.5	300	15	300		4.0	15	10		14k	100m	6.0u	∆	MT1
71	2N2755	2.0	200	\$	20	7.5	250	15	250		4.0	20	10		16k	75m	7.0u	∆	MT1
72	2N2756	2.0	200	\$	20	7.5	300	15	300		4.0	20	10		16k	75m	7.0u	∆	MT1
73	2N2762	2.0	200	\$	30	7.5	300	15	300		4.0	10	10		14k	150m	6.0u	∆	MT33
74	2N2767	2.0	200	\$	30	7.5	250	15	250		4.0	15	10		14k	100m	6.0u	∆	MT33
75	2N2768	2.0	200	\$	30	7.5	300	15	300		4.0	15	10		14k	100m	6.0u	∆	MT33
76	2N2773	2.0	200	\$	30	7.5	250	15	250		4.0	20	10		16k	75m	7.0u	∆	MT33
77	2N2774	2.0	200	\$	30	7.5	300	15	300		4.0	20	10		16k	75m	7.0u	∆	MT33
78	2N2779	2.0	200	\$	30	7.5	250	15	250		4.0	25	10		16k	60m	8.0u	∆	MT33
79	2N2780	2.0	200	\$	30	7.5	300	15	300		4.0	25	10		16k	60m	8.0u	∆	MT33
80	163-05	2.0	200	\$	20	7.5	65	15	50		4.0	5.0	15		220m	6.0u		F	MT33
81	163-07	2.0	200	\$	20	7.5	85	15	70		4.0	5.0	15		220m	6.0u		F	MT33

12. SWITCHING TRANSISTORS

IN ORDER OF (1) fab, (2) MAX RISE TIME & (3) TYPE No.

LINE No.	TYPE No.	fab (Hz)	MAX RISE TIME tr (s)	MAX DELAY TIME td (s)	MAX STORE TIME ts (s)	MAX FALL TIME tf (s)	MAX. P _c IN FREE AIR @ 25°C (W)	BIAS			MAX. SAT. RES. (Ω)	Cob (F)	r _{bb} X Cob (s)	DESCRIPTION		MAX. TEMP (°C)	DWG. No.	L C O D E
								V _{cb} (V)	I _e (A)	h _{fe}				STRUCTURE	M. TEMP			
1	NS1116		1.0n	5.0n		4.0n	500m			500m				N	Si	175J	TO18	DD
2	A197		5.0n	15n		20n	200m						16ps	N	Si	150J	TO106	DD
3	A198		5.0n	15n		35	200m						16ps	N	Si	150J	TO106	DD
4	A199		5.0n	15n		50	200m						16ps	N	Si	150J	TO106	DD
5	D26B1		12n		10n	15n	90m	1.0	10m	60 #		4.0p	N-EP	Si	100J	u40b	DD	
6	D26B2		12n		13n	18n	90m	1.0	10m	120 #		4.0p	N-EP	Si	100J	u40b	DD	
7	2N2967		15n		6.0n	15n	300m	1.0	30m	15 Δ	2.0	3.0p	N	Si	200J	TO18	φ	
8	V220		15n				300m	100m	10m	90 Δ	285		N-PE	Si	200J	ZA18		
9	V221		15n		30n		300m	100m	10m	130 Δ	285		N-PE	Si	200J	ZA18		
10	V222		15n		30n		300m	100m	10m	160 Δ	285		N-PE	Si	200J	ZA18		
11#	MD501		18n		12n	10n	60m	500m	10m	20 Δ		5.0p	P-MD	Ge		TO1		
12#	MD501B		18n		12n	10n	60m	500m	10m	20 Δ		3.0p	P-MD	Ge		TO1		
13	2N2100A		20n		50n	40n	300m	1.0	200m	30 Δ		20p	P	Ge	100S	TO9		
14	2N847		32n		25n	33n	200m				1.5		N	Si	175S			
15	2N848		32n		25n	33n	200m				1.5		N	Si	175S			
16	2N1763		32n		25n	33n	300m				1.5		N	Si	175S			
17	2N1764		32n		25n	33n	300m				1.5		N	Si	175S			
18	MM2102		50n	20n	30n	50n	800m	10	2.0m	1.0 \$	200 \$	4.5ps	N-MOS	Si	200J	R38y		
19	MM2103		50n	30n	25n	50n	800m	10	2.0m	1.0 \$	600 \$	6.5ps	P-MOS	Si	200J	R38y		
20	2N781		60n		20n	50n	150m	22	10m	25 Δ	16		P	Ge	100J	TO18	Aφ	
21	2N1961		75n		35n	75n	150m	25	10m	20 Δ	20		P	Ge	100J	TO46	Aφ	
22#	MDS37		75n		120n	100n	150m	300m	40m	20 Δ			P-MD	Ge		TO18		
23#	D4D22		100n		100n	100n	150m	5.0	10m	120	150	4.0p	N-GD	Si	150J	R133b	A	
24	3N21		200n		500n		100m			2.5			P	Ge	50A			
25#	ASY63		1500nt				200m	.10	3.0m	100 1/2			P	Ge	75J	R47		
26	2N1821		20u		25u		250	4.0	15m	10 Δ			N	Si	175J	TO49		
27	2N1827		20u		25u		250	4.0	20m	10 Δ			N	Si	175J	TO49		
28	2N1828		20u		25u		250	4.0	20m	10 Δ			N	Si	175J	TO49		
29	2N1834		20u		25u		250	4.0	25m	10 Δ			N	Si	175J	TO49		
30	2N1835		20u		25u		250	4.0	25m	10 Δ			N	Si	175J	TO49		
31	2N2121		20u		25u		250	4.0	15m	10 Δ			N	Si	175J	TO83		
32	2N2127		20u		25u		250	4.0	20m	10 Δ			N	Si	175J	TO83		
33	2N2128		20u		25u		250	4.0	20m	10 Δ			N	Si	175J	TO83		
34	2N2134		20u		25u		250	4.0	25m	10 Δ			N	Si	175J	TO83		
35	2N2135		20u		25u		250	4.0	25m	10 Δ			N	Si	175J	TO83		
36#	AS716	25M	20u		15u	40u	250	1.0	1.0m	45 Δ			P-A	Ge	90J	TO3		
37	DTG110B	450k	600n		1.6u	1.4u	105	2.0	4.0	25 Δ	160m		P-D	Ge	110	TO3		
38	1441-0815	500kΔ	500n				10u	4.0	50u	10 #			N-D	Si	200J	TO114		
39	1401-1220	500kΔ	500n				10u	4.0	200u	10 #			N-D	Si	200J	MT14a	C	
40	1401-1225	500kΔ	500n				10u	4.0	250u	10 #			N-D	Si	200J	MT14a	C	
41	1401-1415	500kΔ	500n				10u	4.0	150u	10 #			N-D	Si	200J	MT14a	C	
42	1401-1420	500kΔ	500n				10u	4.0	200u	10 #			N-D	Si	200J	MT14a	C	
43	1401-1425	500kΔ	500n				10u	4.0	250u	10 #			N-D	Si	200J	MT14a	C	
44	1441-0415	500kΔ	500n				10u	350m	4.0	50u	10 #		N-D	Si	200J	TO114		
45	1441-0420	500kΔ	500n				10u	350m	4.0	75u	10 #		N-D	Si	200J	TO114		
46	1441-0425	500kΔ	500n				10u	350m	4.0	100u	10 #		N-D	Si	200J	TO114		
47	1441-0615	500kΔ	500n				10u	350m	4.0	50u	10 #		N-D	Si	200J	TO114		
48	1441-0620	500kΔ	500n				10u	350m	4.0	75u	10 #		N-D	Si	200J	TO114		
49	1441-0625	500kΔ	500n				10u	350m	4.0	100u	10 #		N-D	Si	200J	TO114		
50	1441-0820	500kΔ	500n				10u	350m	4.0	75u	10 #		N-D	Si	200J	TO114		
51	1441-0825	500kΔ	500n				10u	350m	4.0	100u	10 #		N-D	Si	200J	TO114		
52	1441-1015	500kΔ	500n				10u	350m	4.0	50u	10 #		N-D	Si	200J	TO114		
53	1441-1020	500kΔ	500n				10u	350m	4.0	75u	10 #		N-D	Si	200J	TO114		
54	1441-1025	500kΔ	500n				10u	350m	4.0	100u	10 #		N-D	Si	200J	TO114		
55	1441-1215	500kΔ	500n				10u	350m	4.0	50u	10 #		N-D	Si	200J	TO114		
56	1441-1220	500kΔ	500n				10u	350m	4.0	75u	10 #		N-D	Si	200J	TO114		
57	1441-1225	500kΔ	500n				10u	350m	4.0	100u	10 #		N-D	Si	200J	TO114		
58	1441-1415	500kΔ	500n				10u	350m	4.0	50u	10 #		N-D	Si	200J	TO114		
59	1441-1420	500kΔ	500n				10u	350m	4.0	75u	10 #		N-D	Si	200J	TO114		
60	1441-1425	500kΔ	500n				10u	350m	4.0	100u	10 #		N-D	Si	200J	TO114		
61	ST86	.60M	130n	160n	2.5u	2.6u	80	4.0	3.0m	10	1.0		N-D	Ge	150J	TO3		
62	ST810	.60M	130n	160n	2.5u	2.6u	80	4.0	3.0m	10	1.0		N-D	Ge	150J	TO3		
63	ST815	.60M	130n	160n	2.5u	2.6u	80	4.0	3.0m	10	1.0		N-D	Ge	150J	TO3		
64	DTG1210A	.700k	600n		1.6u	1.4u	105	2.0	1.0	35	160m		P-D	Ge	110	TO3		
65#	AC155	1.20M	300n		3.5u	2.0u	200m*	0.0	10m	68 1/2		100p	P-A	Ge	85J	TO1		
66#	ASY14	1.50M	280n		1.5u	2.0u	75m*	700m	80m	25 1/2		25p	P	Ge	75	RA3		
67#	ASY82	1.50M	300n		3.5u	2.0u	200m*	1.0	300m	35 Δ	1.6	100p	P-A	Ge	85J	TO1		
68#	ASY84	1.50M	300n		3.5u	2.0u	200m*	1.0	300m	35 Δ	1.6	100p	P-A	Ge	85J	TO1		
69#	2SB453	1.50M	330n		2.0u	2.5u	250m	1.0	100m	125	6.5		P-A	Ge	85J	RO107a		
70#	2SB454	1.50M	330n		2.0u	2.5u	250m	1.0	100m	120	6.5		P-A	Ge	85J	RO107a		
71#	2SB455	1.50M	330n		2.0u	2.5u	250m	1.0	100m	120	6.5		P-A	Ge	85J	RO107a		
72#	AC156	1.80M			3.5u		200m*	0.0	10m	114 1/2		100p	P-A	Ge	85J	TO1		
73#	AC154	2.00M			3.5u		200m*	0.0	10m	225 1/2		100p	P-A	Ge	85J	TO1		
74#	AC165	2.00M			4.0u		200m*	0.0	10m	280 1/2		100p	P-A	Ge	85J	TO1		
75#	AC166	2.00M			3.5u		200m*	0.0	10m	290 1/2		100p	P-A	Ge	85J	TO1		
76#	AC167	2.00M			3.5u		200m*	0.0	10m	235 1/2		100p	P-A	Ge	85J	TO1		
77#	AC177	2.00M			3.5u		200m*	0.0	10m	235 1/2		100p	P-A	Ge	85J	TO1		
78	2N159	2.00MΔ	200n			200n	80m						P-PC	Ge	85	OV4		
79#	ASY86	2.00M	180n		2.5u		200m*	1.0	300m	35 Δ	2.0	100p	N-A	Ge	85J	TO1		
80#	ASY88	2.00M	180n		2.5u		200m*	1.0	300m	35 Δ	2.0	100p	N-A	Ge	85J	TO1		
81#	2G524	2.00M	300n	600n	1.0u	1.6u	225	1.0	20m	35	35		P-A	Ge	85J	TO5		
82#	2G1024	2.00M	300n	600n	1.2u	1.6u	225m	1.0	20m	35		27p	P-A	Ge	85J	TO5		
83#	AC157	2.50M			3.0u		200m*	0.0	10m	190 1/2		100p	N-A	Ge	85J	TO1		
84#	AC188	2.50M			3.5u		200m*	0.0	10m	235 1/2		100p	N-A	Ge	85J	TO1		
85	2N817	2.50MΔ	700n		800n	500n	75m	1.0	50m	25	5.0	9.0p	N-FA	Ge	85J	u8		
86	2N818	2.50MΔ	700n		800n	500n	75m	1.0	50m	25	5.0	9.0p	N-FA	Ge	85J	u9		
87#	ASY83	2.50M	150n		3.5u		200m*	1.0	300m	85 Δ	1.6	100p	P-A	Ge	85J	TO1		
88#	ASY85	2.50M	150n		3.5u		200m*	1.0	300m	85 Δ	1.6	100p	P-A	Ge	85J	TO5		
89#	2G525	2.50M	200n	500n	1.2u	1.5u	225	1.0	20m	20	52	27p	P-A	Ge	85J	TO5		
90#	2G1025	2.50M	200n	550n	1.3u													

12. SWITCHING TRANSISTORS

IN ORDER OF (1) fab, (2) MAX RISE TIME & (3) TYPE No.

LINE No.	TYPE No.	fab	MAX RISE TIME tr (s)	MAX DELAY TIME td (s)	MAX STORE TIME ts (s)	MAX FALL TIME tf (s)	MAX. Pc IN FREE AIR @ 25°C (W)	BIAS			MAX. SAT. RES. (Ω)	Cob (F)	r'bb X Cob (s)	DESCRIPTION		MAX. TEMP (°C)	DWG. No.	L E A D E
								Vcb (V)	Ic (A)	hfe				STRUCTURE P-NPN N-PNP	MAX. T			
1#	NKT123	5.00M	2000n		2.0u	750n	75m	500m∅	80		20p	4.4n	P-A	Ge	75J	T05		
2#	NKT129	5.00M	2000n		2.0u	750n	75m	1.0m∅	80		20p	4.4n	P-A	Ge	75J	T05		
3#	2G395	5.50M	1200n	260n	650n	650n	150m	1.0∅	10m	150	4.0	1.6n	P-A	Ge	85J	T05		
4#	2N1173	6.00M		500n∅	1.5u∅		250m	1.0∅	10m	92	4.0	25p∅	N-A	Ge	100S	T029		
5#	2N801	6.00M	500n∅		300n∅	350n∅	75m	250m∅	1.0m∅	40	3.2	14p	P-FA	Ge	85J	u8		
6#	2N802	6.00M	500n∅		300n∅	350n∅	75m	250m∅	1.0m∅	40	3.2	14p	P-FA	Ge	85J	u9		
7#	CK26	6.00M	500n∅		300n∅	350n∅	80m	250m∅	1.0m∅	40	3.2	14p	P-FA	Ge	85J	u11		
8#	CK26A	6.00M	500n∅		300n∅	350n∅	80m	350m∅	1.0m∅	55	3.2	14p	P-FA	Ge	85J	u12		
9#	2SA458	6.0M	1000n		700n	700n	150m	1.0∅	10m	60		55n∅	P-A	Ge	85J	RO107b		
10#	2SA459	6.0M	1000n		700n	700n	150m	1.0∅	10m	120			P-A	Ge	85J	RO107b		
11#	2N1174	7.00M		500n∅	1.5u∅		250m	1.0∅	10m	110	4.0	25p∅	N-A	Si	100S	T029		
12#	JAN2N496	7.20M\$Δ	175n\$				150m	500m∅	6.0Δ		30		P	Si	140S	T01		
13#	2N1606	7.20M\$Δ	300n∅		300n∅	310n∅	100m	50∅	15m	6.0Δ			P	Si	140S	T05		
14#	2N825	8.00M	400n∅	190n∅	600n∅	310n∅	75m	1.0∅	10m	90	4.0	12p	P-FA	Ge	85J	u8		
15#	2N826	8.00M	400n∅	190n∅	600n∅	310n∅	75m	1.0∅	10m	90	4.0	12p	P-FA	Ge	85J	u9		
16#	2N123/5	8.00M	450n		400n∅	400n∅	150m	5.0	1.0m	65†		15p	P-A	Ge	85S	T05		
17#	2N815	8.00M	600n∅		400n∅	400n∅	75m	750m∅	200m∅	80		14p	N-FA	Ge	85J	u8		
18#	2N816	8.00M	600n∅		400n∅	400n∅	75m	750m∅	200m∅	80		14p	N-FA	Ge	85J	u9		
19#	2G396	8.00M	750n	230n	650n	450n	150m	1.0∅	10m	150	4.0	12p	P-A	Ge	85J	T05		
20#	2G604	9.20M	380n		150m		150m	1.0∅	10m	70		12p	P-A	Ge	100S	T05		
21#	2G605	9.40M	350n∅	160n∅	440n∅	280n∅	150m	25∅	4.5m∅	75		12p	P-A	Ge	85J	T05		
22#	2G603	9.40M	400n	180n	410n	280n	150m	1.0∅	10m	150	12p		P-A	Ge	85J	T05		
23#	2SA326	10.0M	85n		2.3u	700n	80m	1.0∅	80m	60		13p	P-A	Ge	85J	T01		
24#	NKT735	10.0M	220n		500n	600n	150m	3.5m∅	3.0Δ	20Δ	20	20p∅	N	Ge	85J	T05	A	
25#	2N1607	10.0M\$Δ	265n∅		265n∅	200n∅	100m	50∅	15m	6.0Δ			P	Si	140S	T05		
26#	2N822	10.0MΔ	300n∅		600n∅	200n∅	75m	1.0∅	50m	70	5.0	9.0p	N-FA	Ge	85J	u9		
27#	2SC86	10.0M	300n		400n	200n	120m	30∅	200m∅	60	1.5	20p∅	N-A	Ge	85J	T01		
28#	2SC85	10.0M	500n		400n	300n	120m	30∅	200m∅	30	1.5	20p∅	N-A	Ge	85J	T01		
29#	2SC84	10.0M	600n		400n	300n	120m	50∅	20m	40	1.5	20p∅	N-A	Ge	85J	T01		
30#	2N5049	10.0M\$∇	1000n		2.5u	1.0u	100	4.0∅	100m∅	15Δ	250m		N	Si	200S	T061	A∅	
31#	NKT102	10.0M	1000n		2.0u	600n	75m	500m∅	80		20p	4.4n	P-A	Ge	75J	T022		
32#	NKT105	10.0M	1000n		2.0u	600n	75m	25m∅	120		20p	4.4n	P-A	Ge	75J	T022		
33#	NKT108	10.0M	1000n		2.0u	600n	75m	1.0m∅	80		20p	4.4n	P-A	Ge	75J	T022		
34#	NKT122	10.0M	1000n		2.0u	600n	75m	500m∅	80		20p	4.4n	P-A	Ge	75J	T05		
35#	NKT128	10.0M	1000n		2.0u	600n	75m	1.0m∅	80		20p	4.4n	P-A	Ge	75J	T05		
36#	2N803	11.0M	400n∅		300n∅	350n∅	75m	250m∅	1.0m∅	55	2.1	14p	P-FA	Ge	85J	u8		
37#	2N804	11.0M	400n∅		300n∅	350n∅	75m	250m∅	1.0m∅	55	2.1	14p	P-FA	Ge	85J	u9		
38#	CK27	11.0M	400n∅		300n∅	350n∅	80m	250m∅	1.0m∅	55	2.1	14p	P-FA	Ge	85J	u11		
39#	CK27A	11.0M	400n∅		300n∅	350n∅	80m	250m∅	1.0m∅	55	2.1	14p	P-FA	Ge	85J	u11		
40#	2N799	12.0M		1.4u∇			75m	150m∅	400m∅	60	12	12p	P-FA	Ge	85J	u2		
41#	2N800	12.0M		1.4u∇			75m	150m∅	400m∅	60	12	12p	P-FA	Ge	85J	u2		
42#	2N823	12.0M		1.4u∇			75m	250m∅	20m	40Δ	8.3	12p	N-FA	Ge	85J	u8		
43#	2N824	12.0M		1.4u∇			70m	250m∅	20m	40Δ	8.3	12p	N-FA	Ge	85J	u9		
44#	ASZ10	12.0MΔ	300n		400n	1.4u	150m	55∅	200m∅	20Δ	1.2	4.0p∅	P-D	Ge	75J	X12		
45#	ASZ30	12.0MΔ	300n		400n	1.4u	30m	55∅	200m∅	20Δ	1.2	4.0p∅	P-D	Ge	75J	R76		
46#	2G397	12.0M	450n	200n	650n	350n	150m	1.0∅	10m	150	4.0	12p	P-A	Ge	85J	T05		
47#	CK4	12.0M	1400n∇		80m		80m	150m∅	400m∅	60	8.3	12p	P-FA	Ge	85J	u11		
48#	CK4A	12.0M	1400n∇		80m		80m	150m∅	400m∅	60	8.3	12p	P-FA	Ge	85J	u12		
49#	2N1103	12.5M\$Δ	50n∅		20n	80n	125m	3.0∅	10m∅	30Δ		3.0p∅	N	Si	150S	T05		
50#	2N805	17.0M	400n∅		300n∅	300n∅	75m	250m∅	1.0m∅	80	1.6	14p	P-FA	Ge	85J	u8		
51#	2N806	17.0M	400n∅		300n∅	300n∅	75m	250m∅	1.0m∅	80	1.6	14p	P-FA	Ge	85J	u9		
52#	CK28	17.0M	400n∅		300n∅	300n∅	80m	25∅	1.0m∅	80	1.6	14p	P-FA	Ge	85J	u11		
53#	CK28A	17.0M	400n∅		300n∅	300n∅	80m	250m∅	1.0m∅	80	1.6	14p	P-FA	Ge	85J	u12		
54#	NKT101	18.0M	500n		2.0u	300n	75m	500m∅	80		20p	4.4n	P-A	Ge	75J	T022		
55#	NKT104	18.0M	500n		2.0u	300n	75m	25m∅	120		20p	4.4n	P-A	Ge	75J	T022		
56#	NKT107	18.0M	500n		2.0u	300n	75m	1.0m∅	80		20p	4.4n	P-A	Ge	75J	T022		
57#	NKT121	18.0M	500n		2.0u	300n	75m	500m∅	80		20p	4.4n	P-A	Ge	75J	T05		
58#	NKT127	18.0M	500n		2.0u	300n	75m	1.0m∅	80		20p	4.4n	P-A	Ge	75J	T05		
59#	2N1065	20.0MΔ	100n		120m		120m	1.0∅	50m	50		7.0p∅	P-D	Ge	85S	T09		
60#	RT730M	20.0M	110n∅		350m		350m	10∅	150m	40	10	35p∅	N-PL	Si	175J	T046		
61#	RT731M	20.0M	110n∅		350m		350m	10∅	150m	80	10	35p∅	N-PL	Si	175J	T046		
62#	TN304	20.0M\$	150n	50n	700n	200n	30∅	1.0∅	50m	25	250m	125p∅	N-PE	Si	200A	MT47		
63#	2N2161	20.0M	350n∅	350n	350n	200m	200m	5.0∅	100m∅	30Δ		3.0p	N	Si	175S	T05		
64#	USAF525ES085M	20.0M\$Δ	500n∅		1.5u	400n	2.0m	3.0∅	15m∅	27Δ	12	900p∅	N-PE	Si	200S	X20		
65#	2SC166	20.0M	580n		2.0u	650n	200m	12	3.0m	30Δ		18p	N	Si	150J	T018		
66#	2SC167	20.0M	580n		2.0u	650n	200m	12	3.0m	30Δ		18p	N	Si	150J	T018		
67#	2N3601	20.0M\$Δ	1000n	300n	2.0u	700n	500m	1.5∅	1.0∅	180	330m		P-DA	Ge	100J	R81		
68#	2N3602	20.0M\$Δ	1000n	300n	2.0u	700n	500m	1.5∅	1.0∅	180	330m		P-DA	Ge	100J	MT55		
69#	2N3603	20.0M\$Δ	1000n	300n	2.0u	700n	500m	1.5∅	1.0∅	180	330m		P-DA	Ge	100J	R81		
70#	2N3604	20.0M\$Δ	1000n	300n	2.0u	700n	500m	1.5∅	1.0∅	180	330m		P-DA	Ge	100J	MT55		
71#	USAF501ES001M	20.0M\$Δ	1000n∅		1.0u	250n	250m	5.0∅	200m∅	20Δ	150	4.0p∅	N-GD	Si	150J	T039		
72#	DAT1A	25.0M\$Δ			75n∅	20m	20m	3.0∅	500m∅	25Δ		6.0p∅	P-MA	Ge	100J	T01		
73#	DAT2	25.0M\$Δ			70n∅	30m	30m	500m∅	50m∅	40Δ		6.0p∅	P-MA	Ge	100J	T01		
74#	MA393E	25.0M\$Δ			75n∅	30m	30m	500m∅	50m∅	40Δ		6.0p∅	P-MA	Ge	100J	T01		
75#	HA9054	25.0MΔ	30n				250m	10	2.0m	25†		10p∅	P-ME	Si	160A	T018		
76#	HA9056	25.0MΔ	30n				250m	10	2.0m	25†		10p∅	P-ME	Si	160A	T018		
77#	HA9058	25.0MΔ	30n				250m	10	2.0m	25†		10p∅	P-ME	Si	160A	T018		
78#	2N3148	25.0M\$Δ	80n\$				25m*	500m∅	50m	60Δ	6.0		P	Ge	100S	T024		
79#	2N1608	25.0M\$Δ	235n∅		235n∅		100m	50∅	15m∅	6.0Δ			P	Si	140S	T05		
80#	2N496/18	28.8M\$Δ	175n\$				150m	50∅	15m∅	15Δ	30	12p∅	P-S	Si	140S	T018		
81#	2N643	30.0M\$	10n	80n	6.0n	80n	120m	7.0∅	5.0m	45†		2.0p	P-A	Ge	71A	T09	A∅	

12. SWITCHING TRANSISTORS

IN ORDER OF (1) fab, (2) MAX RISE TIME &
(3) TYPE No.

LINE No.	TYPE No.	fab	MAX RISE TIME tr (s)	MAX DELAY TIME td (s)	MAX STORE TIME ts (s)	MAX FALL TIME tf (s)	MAX. Pc IN FREE AIR @ 25°C (W)	BIAS			MAX. SAT. RES. (Ω)	Cob (F)	r'bb X Cob (s)	DESCRIPTION		MAX. TEMP (°C)	DWG. No.	L O D E
								Vcb (V)	Ic (A)	hfe				STRUCTURE	MAX. T			
1	2N1660	40.0M\$	110nØ		1.7uØ	1.4uØ	85mØ	15	1.0	80	4.0		N-PD	Si	200J	MS3		
2	2N1661	40.0M\$	110nØ		1.7uØ	1.4uØ	85mØ	15	1.0	80	4.0		N-PD	Si	200J	MS3		
3	2N1662	40.0M\$	110nØ		1.7uØ	1.4uØ	85mØ	15	1.0	80	4.0		N-PD	Si	200J	MS3		
4	2N1896	40.0M\$	110nØ		1.7uØ	1.4uØ	85mØ	15	1.0	80	4.0		N-D	Si	200J	MT16		
5	2N1897	40.0M\$	110nØ		1.7uØ	1.4uØ	85mØ	15	1.0	80	4.0		N-D	Si	200J	MT16		
6	2N1898	40.0M\$	110nØ		1.7uØ	1.4uØ	85mØ	15	1.0	80	4.0		N-D	Si	200J	MT16		
7	TIP14	40.0M\$Δ	150nØ			600nØ	2.0	5.0	200mØ	30	60 #		P-E	Si	150	X43		
8	TN301	40.0M\$	150n	50n	700n	200n	30 Ø	1.0	50mØ	50	125pØ		N-PF	Si	200A	MT47		
9	TN302	40.0M\$	150n	50n	700n	200n	30 Ø	1.0	50mØ	50	125pØ		N-PF	Si	200A	MT47		
10	TN303	40.0M\$	150n	50n	700n	200n	30 Ø	1.0	50mØ	50	125pØ		N-PF	Si	200A	MT47		
11	2N1252A	40.0M\$Δ	230nØ		150nØ		800m	10	150mØ	45	1.0		N	Si	200J	T05		
12#	2SA375	40.0M	550n		300n	200n	80m	1.0	50mØ	40	3.0	2.5p	P-D	Ge	85J	T01	AØ	
13	2N908	45.0M	50nØ		20nØ	80nØ	150m	5.0	10mØ	75	150	1.4p	N-PD	Si	175J	u10		
14#	BLY29	46.0M\$Ø	300nØ			1.5uØ	30 Ø	5.0	2.0 Ø	50 #	500m#	40p	N-DPE	Si	200J	T059		
15	2N867	50.0M\$Δ			150nØ		500m	10	150mØ	30	40	45p	N	Si	300S	T018		
16#	ST54	50.0M\$Δ			300n		300m	400mØ	1.0mØ	35	Δ	10pØ	N-PF	Si		T018		
17#	ST160	50.0M\$Δ			25n		600m	10	150mØ	30	#Δ	25pØ	N-PF	Si		T05		
18#	ST161	50.0M\$Δ			25n		600m	10	150mØ	20	#Δ	25pØ	N-PF	Si		T05		
19#	ST162	50.0M\$Δ			25n		600m	10	150mØ	40	#Δ	25pØ	N-PF	Si		T05		
20#	ST163	50.0M\$Δ			25n		600m	10	150mØ	20	#Δ	25pØ	N-PF	Si		T05		
21	2N644	50.0M\$	8.0n	60n	4.0n	60n	120m	7.0	5.0m	45	2.0p		P-A	Ge	71A	T09	A	
22	2N748	50.0M	15nØ		10nØ	10nØ	200m	5.0	10mØ	30	120	4.0p	N-AD	Si	175J	u2		
23	TN52	50.0M\$	35n	15n	300n	50n	5.0mØ	5.0	1.0m	80	500m	100p	N-PF	Si	200J	MT26		
24	TN72	50.0M\$	35n	15n	300n	50n	5.0uØ	5.0	1.0mØ	80	500m	100p	N-PF	Si	200J	T05		
25	USAF511ES036P	50.0M\$Δ	100n	80n	4.0u	500n	600m	10	2.0mΔ	120	100	35pØ	N-PL	Si	200J	T039		
26	USAF520ES070M	50.0M\$Δ	100nØ		450n	85n	438m	10	1.0mØ	90	3.3	38pØ	PE	Si	200J	u26a		
27	USAF521ES071M	50.0M\$Δ	150nØ		450n	85n	438m	10	150mØ	120	4.0	40pØ	P-PL	Si	200J	u25		
28	2N1253A	50.0M\$Δ	190nØ		150nØ		800m	10	150mØ	90	#Δ	4.0	N	Si	200J	T05	AØ	
29#	BLY30	50.0M\$Ø	300n		1.5uØ		800m	5.0	2.0 Ø	75 #	500m#	40p	N-DPE	Si	200J	T059		
30	SE3040	50.0M\$	300n	50n	350n	300n	15	2.0	2.0mØ	70	20 #	45p	N	Si	150J	T066	CØ	
31	SE3041	50.0M\$	300n	50n	350n	300n	15	2.0	2.0mØ	75	20 #	45p	N	Si	150J	T066	CØ	
32	USAF517ES060M	50.0M\$Δ	300nØ		600n	130n	438m	10	5.0mØ	180	7.0	55pØ	PE	Si	200J	u26a		
33	USAF514ES050M	50.0M\$Δ	1000nØ		4.0n	1.0u	2.0	2.0	1.0 Ø	90	#Δ	150m	800p	N	Si	150J	X15a	
34#	ST150	60.0M\$Δ			100nØ		600m	10	150mØ	20	#Δ	25pØ	N-PF	Si		T05		
35	2N747	60.0M	13nØ		10nØ	10nØ	200m	5.0	10mØ	45	120	4.0p	N-AD	Si	175J	u2		
36	2N604	60.0M*	40n				120m	1.0	500uΔ	90	3.0p		P-D	Ge	85S	T09		
37#	MDS34	60.0M\$Δ	60n				80m	500mØ	40mØ	20	Δ		P-MD	Ge		T01		
38	2N1301	60.0M\$	70nØ	90nØ	90nØ	70nØ	150m	500mØ	40m	75			P-ME	Ge	85A	T05	A	
39#	2SC117	60.0M\$	75n		150n	50n	2.0	15	30m	10	Δ		N-D	Si	175J	T08		
40	B148005	60.0M\$Δ	200n	25n	300n	300n	100 Ø	5.0	0.2mØ	160	#Δ	10	N	Si	175J	T061	AØ	
41	CS696	64.0M\$	200nØ				1.5 Ø	10	150mØ	20	#Δ	10	N-D	Si		R97		
42	SE9020	70.0M\$	400nØ		500nØ	1.0n	62	5.0	1.0 Ø	125	#Δ		N-DPE	Si	150J	T03		
43	2N645	75.0M\$	6.0n	40n	2.0n	40n	120m	7.0	5.0m	45	2.0p		P-A	Ge	71A	T09		
44	JAN2N1199A	75.0M\$Δ	55n		20n	35n	150m	1.0	20mØ	60	#Δ	25	N	Si	150S	R49		
45#	SI341P	80.0M\$	50nØ			50nØ	600m	5.0	1.5mØ	45	12	35p	P-DPL	Si	175J	ZA15		
46#	SI342P	80.0M\$	50nØ			50nØ	600m	5.0	1.5mØ	90	#Δ	10	P-DPL	Si	175J	ZA15		
47#	SI343P	80.0M\$	50nØ			50nØ	600m	5.0	1.5mØ	180	#Δ	10	P-DPL	Si	175J	ZA15		
48#	2SC114	80.0M	70n		110n	25n	750m	2.0	200m	20	Δ	18p	N	Si	150J	T05		
49	CS718	80.0M\$Δ	200nØ				1.0 Ø	2.0	150mØ	40	#Δ	10	N-D	Si		R97a		
50	FT34A	80.0M\$Δ	500nØ			1.0uØ	15 Ø	2.0	2.0 Ø	85	#Δ	120m	N-PF	Si	200S	T059		
51	FT34B	80.0M\$Δ	500nØ			1.0uØ	15 Ø	2.0	2.0 Ø	210	#Δ	120m	N-PF	Si	200S	T059		
52	2N5017/18	90.0M\$	18n	9.0nØ	12n	10n	150m	500mØ	10m	20	Δ	20	P-ME	Ge	100J	T018		
53	2N2234	90.0M\$	30nØ			600nØ	10 Ø	2.0	100mØ	35	Δ		N-PF	Si	150	T03		
54#	SI321P	90.0M\$	40nØ			50nØ	400m	5.0	1.5mØ	45	1.9	23p	P-DPL	Si	175J	ZA16		
55#	SI322P	90.0M\$	40nØ			50nØ	400m	5.0	1.5mØ	90	#Δ	1.9	P-DPL	Si	175J	ZA16		
56#	SI353P	90.0M\$	40nØ			50nØ	400m	5.0	1.5mØ	180	#Δ	1.9	P-DPL	Si	175J	ZA16		
57#	2SC216	90.0M\$Δ	350nØ		250n	50nØ	400m	22	200mØ	60	Δ	1.1	P	Ge	100S	T05		
58	2N1060	100M	50n		50nØ		250m	1.0	10m	60	1	10pØ	N-DM	Si	150J	T028		
59	2N3450	100M\$Δ	50n	50n	150n	85n	600m	1.0	150mØ	120	#Δ	3.3	N	Si	200S	T05		
60	NS9210	100M\$	50n	50n	80n	40n	50	15	100mØ	30	1.5	30p	N-PF	Si	175	T061		
61	NS9211	100M\$	50n	50n	80n	40n	50	15	100mØ	30	1.5	30p	N-PF	Si	175	T061		
62#	BLY10	100M\$	55nØ		105nØ	10 Ø	1.6	100mØ	22	25		25p	N-PL	Si	150	T03		
63	2N995A	100M\$Δ	60nØ		280nØ	90nØ	380m	1.0	20mØ	140	#Δ	6.0pØ	P-PF	Si	200J	T018		
64#	2N1959A/51	100M\$	60nØ		25n	45nØ	300m	1.0	1m	25	#Δ	14pØ	N-D	Si	200J	T051		
65#	MDS31	100M\$Δ	60n				60m	300mØ	20mØ	30	Δ		P-MD	Ge		T01		
66#	MDS36	100M\$Δ	60n				60m	300mØ	10mØ	30	Δ		P-MD	Ge		T018		
67	2N1958/18	100M\$Δ	65nØ		25n	20n	300m	10	150m	40	3.0	18pØ	N-E	Si	175J	T018		
68	2N1959/18	100M\$Δ	65nØ		25n	20n	300m	10	150m	40	3.0	18pØ	N-E	Si	175J	T018		
69	2N1964	100M\$Δ	65nØ		25n	45nØ	400m	10	150mØ	60	Δ	3.0	N	Si	175J	T046	AØ	
70	2N1964/46	100M\$Δ	65nØ		25n	45nØ	400m	10	150mØ	40	3.0	18pØ	N-E	Si	300S	T046		
71	2N1965	100M\$Δ	65nØ		25n	45nØ	400m	10	150mØ	120	#Δ	3.0	N	Si	175J	T046	AØ	
72	2N1965/46	100M\$Δ	65nØ		25n	20n	400m	10	150mØ	40	3.0	18pØ	N-E	Si	175J	T046		
73	2N2927/46	100M\$Δ	75nØ		170nØ	400m	1.0	50mØ	30	#Δ	3.0	20pØ	P-PF	Si	200J	T046		
74	2N2927/51	100M\$Δ	75nØ		170nØ	300m	1.0	50mØ	30	#Δ	3.0	20pØ	P-PF	Si	200J	T051		
75	USAF515ES045M	100M\$Δ	75nØ		150n	50n	350m	1.0	50mØ	20	Δ	15	P-PL	Si	200J	X34		
76	USAF515ES046M	100M\$Δ	75nØ				350m	1.0	50mØ	20	Δ	15	P-PL	Si	200J	X34		
77	RT1115	100M\$	85n		100n	55n	800m	1.0	150mØ	120	#Δ	3.3	N-PF	Si	200J	T05		
78	USAF516ES047M	100M\$Δ	100mØ		200n	80n	350m	1.0	10mØ	30	Δ	15	P-PL	Si	200J	X34		
79	USAF516ES048M	100M\$Δ	100mØ		200nØ	3.0 Ø	350m	1.0	50mØ	20	Δ	15	P-PL	Si	200J	X34		
80#	VH10	100M\$Δ	100mØ		300n	1.0uØ	600m	2.5	200mØ	130	#	20pØ	P-DPE	Si	200J	T05		
81#	BFY15	100M\$	120nØ				600m	2.5	200mØ	20	#	48pØ	N-PLØ	Si	150A	T05		
82	2N1444	100M	250mØ			250mØ	500m	5.0	250m	25		32p	N-ME	Si	150J	T029		
83#	C434	100M\$	250mØ			600nØ	10 Ø	2.0	2.0 Ø	20	#Δ	150m	N-DPE	Si	150J	T03		
84#	CP408	100M\$	500nØ			500nØ	1											

12. SWITCHING TRANSISTORS

IN ORDER OF (1) fab, (2) MAX RISE TIME & (3) TYPE No.

LINE No.	TYPE No.	fab	MAX RISE TIME tr (s)	MAX DELAY TIME td (s)	MAX STORE TIME ts (s)	MAX FALL TIME tf (s)	MAX. P _c AIR FREE IN @ 25°C (W)	BIAS			MAX. SAT. RES. (Ω)	Cob (F)	r _{bb} X Cob (s)	DESCRIPTION			L E A D E	
								V _{cb} (V)	I _e (A)	h _{fe}				STRUCTURE P-NPN N-PNP	MAX. TEMP (°C)	DWG. No.		
1	NS6207	150MSΔ	60n			60n	150m	1.0	150m	30 #Δ	3.3	8.0p	N-E	Si	150	X16		
2	2N2718	150MSΔ	100n			250n	240m	2.7	170m	25 Δ		10p	P	Si	100S	T05		
3#	BFY16	150MS	120n			300n	600m	2.5	200m	36 Δ		48p	N-PL	Si	150A	T05	∅	
4#	BLY11	150MS	120n			300n	1.0u	1.0	100m	40 Δ		25p	N-PL	Si	150	T03		
5#	2SA363	150MS	200n			300n	100n	3.0	20m	80	30	6.0p	P-ME	Ge	85J	T044		
6#	2N1500/18	175MS	13n				60m	500m	10m	70		1.5p	P-MD	Ge	100S	T018		
7#	2SC112	180M	50n			110n	17n	750m	2.0	200m	125	7.0p	N	Si	175	T05		
8#	2SC113	180M	50n			110n	17n	750m	2.0	200m	125	7.0p	N	Si	175	T05		
9#	RT719M	180M	80nt				400m	10	150m	30 #	5.3	14p	N-PL	Si	175J	T046		
10	2N706/51	200MSΔ				60n	300m	1.0	10m	20 Δ	60	6.0p	N-E	Si	175J	T051		
11#	BSY33	200MSΔ	10nt	27n	130n	16nt	100m	2.0	10m	55		4.0p	N-PE	Si	100J	u18		
12#	BSY48	200MSΔ	10nt	27n	130n	16nt	100m	2.0	10m	55		4.0p	N-PE	Si	100J	u19		
13#	BSY32	200MSΔ	12nt	27n	130n	16nt	100m	2.0	10m	32		4.0p	N-PE	Si	100J	u18		
14#	BSY47	200MSΔ	12nt	27n	130n	16nt	100m	2.0	10m	32		4.0p	N-PE	Si	100J	u19		
15#	BFY25	200MSΔ	13nt	9.0nt	400nt	300nt	600m	9.0	10m	26 Δ	150	5.5p	N-PL	Si	200J	T05		
16	2N1962	200MSΔ	18n			10n	30m	1.0	10m	80 Δ	25	3.5p	N	Si	175J	T046	A	
17	2N1962/46	200MS	18n			10n	30m	1.0	10m	20 Δ			N-E	Si	175J	T046	A	
18	2N1963	200MSΔ	20n			15n	40m	1.0	10m	25 Δ	19	3.5p	N	Si	175J	T046	A	
19	2N1963/46	200MSΔ	20n			15n	25n	400m	1.0	10m	25 Δ	19	3.5p	N-E	Si	175J	T046	
20	2N3928	200MSΔ	30n	5.0n	50n	25n	5.0m	10	1.5	20 Δ	3.3	25p	N	Si	175J	T114		
21	2N3929	200MSΔ	30n	5.0n	50n	25n	2.0m	10	1.5	20 Δ	3.3	25p	N	Si	175J	T059		
22#	2SA247	200M	30n			450n	70n	100m	3.0	20m	125	5.5p	P	Ge	85	T044		
23	LDS208	200MSΔ	30nt	12nt	225n	360n	360m	1.0	150m	100 #		8.0p	N-PE	Si	150J	u34	A	
24	2N706A/51	200MSΔ	40n			25n	50n	300m	1.0	10m	20 Δ	5.0p	N-E	Si	175J	T051		
25	2N706C/46	200MSΔ	40n			25n	50n	400m	1.0	10m	20 Δ	4.0p	N-E	Si	200J	T046		
26	2N706C/51	200MSΔ	40n			25n	50n	300m	1.0	10m	20 Δ	4.0p	N-E	Si	200J	T051		
27	2N753/51	200MSΔ	40n			35n	50n	300m	1.0	10m	40 Δ	6.0p	N-E	Si	175J	T051		
28	40218	200MSΔ	40n	25n		75n	300m	1.0	10m	20 Δ		5.0p	N	Si	175	T052		
29	40222	200MSΔ	40n	25n		75n	300m	1.0	10m	20 Δ		6.0p	N	Si	175	T052		
30	USA55191/35	200MSΔ	50n			60n	700m	700m	8.0m	20 Δ	13	6.0p	N	Si	200J			
31	FK3299	200MSΔ	60n			150n	350m	10	150m	40 Δ#	1.2	8.0p	N-PE	Si	300S	u17b		
32	FV3299	200MSΔ	60n			150n	350m	10	150m	40 Δ#	1.2	8.0p	N-PE	Si	300S	u5b		
33	NS949	200MSΔ	60n			100n	5.0	2.0	500m	15 Δ		2.3p	N-E	Si	200A	T046		
34	NS950	200MSΔ	60n			70n	5.0	2.0	500m	10 Δ		2.3p	N-E	Si	200A	T046		
35	2N2397	200MS	70n			25n	40n	300m	1.0	10m	25 Δ	5.0p	N-EM	Si	200J	T051		
36#	2SC479H	200MSΔ	100n			80n	650m	1.0	100m	130		20p	N-PE	Si	175J	T05	A	
37	NS2100	200MS	125n			225n	500m	10	10m	40 Δ		10p	N	Si	200J	T018		
38	NS2101	200MS	125n			225n	800m	10	10m	40 Δ		10p	N	Si	200J	T050		
39	2N2797	235MS		15n		120n	75m	30	10m	80		2.5p	P-D	Ge	100S	T09		
40	2N2798	235MS	25n	20n		140n	75m	30	10m	50	20	2.5p	P-D	Ge	100S	T09		
41	LDS206	250M				20n	360m	5.0	1.0m	100		6.0p	N	Si	150J	T0122	P	
42	2N595	250MS	1.6nt			2.0 t	1.3nt	75m	300m	10m	40	3.5p	P-ME	Ge	100J	T017		
43	2N3982	250MSΔ	15n	15n	25n	15n	3.0	1.0	150m	140	2.7	8.0p	N	Si	200J	T05		
44#	MDS33C	250MSΔ	18n	15n	12n	10n	60m	5.0	10m	6.2 tΔ		4.0p	P-MD	Si	200J	T01		
45	2N2981	250MSΔ	20n	15n	30n	10n	3.0	1.0	150m	120	2.7	8.0p	N	Si	200J	T05		
46	FM2242	250MSΔ	30n			45n	2.0	1.0	500m	10 #Δ	2.0	10p	N-DPE	Si	200J	T046	A	
47	2N2231	250MSΔ	30n			50n	350m	1.0	10m	40 Δ	7.0	6.0p	N	Si	200	T046		
48	2N3132	250M	35n	10n	25n	75n	150m	1.0	10m	120	25	4.0p	N-P	Si	150J	X16		
49#	2SC103A	250MSΔ	40n			500n	60n	250m	1.0	10m	40 Δ	4.0p	N-PL	Si	175J	T018		
50	TA2628	250MSΔ	40n			80n	800m	1.0	100m	30 Δ	800m	12p	N-DPE	Si	200J	T05		
51	TA2750	250MSΔ	40n			60n	800m	1.0	100m	30 Δ	800m	10p	N-DPE	Si	200J	T05		
52#	96EP	250MSΔ	50n			100n	250m	5.0	150m	30 #Δ	3.3	12p	N-PET	Si	125J	u46	A	
53#	FK3300	250MSΔ	60n			150n	350m	10	150m	100 Δ#	1.2	8.0p	N-PE	Si	300S	u17b		
54	FV3300	250MSΔ	60n			150n	350m	10	150m	100 Δ#	1.2	8.0p	N-PE	Si	300S	u5b		
55	USAF522ES067M	250MSΔ	60n			60n	350m	1.0	70m	15 #	6.4		N-PE	Si	200J	X34		
56	USAF522ES075M	250MSΔ	60n			60n	350m	1.0	70m	20 #	6.4		N-PE	Si	200J	X34		
57	USAF523ES077M	250MSΔ	60n			60n	350m	1.0	70m	15 #	6.4		N-PE	Si	200J	X34		
58	USAF523ES078M	250MSΔ	60n			60n	350m	1.0	70m	15 #	6.4		N-PE	Si	200J	X34		
59#	ST50	270MSΔ				25n	300m	1.0	10m	22 Δ			N-PE	Si		T018		
60#	ST502	270MSΔ				25n	300m	1.0	10m	50 Δ			N-PE	Si		T018		
61#	MDS38	300MSΔ	30n			20n	50m	500m	10m	20 Δ	9.0	4.0p	P-MD	Si	200J	T018		
62	2N1992	300MSΔ				20n	350m	1.0	10m	45 t		6.0p	N-E	Si	200J	T018		
63#	ST02	300MSΔ				200n	360m	1.0	10m	20 Δ		6.0p	N-PE	Si	200J	T018		
64#	ST03	300MSΔ				200n	360m	1.0	10m	20 Δ		6.0p	N-PE	Si	200J	T018		
65#	ST04	300MSΔ				200n	360m	1.0	10m	40 Δ		6.0p	N-PE	Si	200J	T018		
66#	ST05	300MSΔ				200n	360m	1.0	10m	100 Δ		6.0p	N-PE	Si	200J	T018		
67#	ST51	300MSΔ				130n	300m	350m	10m	40 Δ		6.0p	N-PL	Si	200J	T018		
68#	ST55	300MSΔ				25n	300m	1.0	10m	40 Δ		6.0p	N-PE	Si	200J	T018		
69#	ST56	300MSΔ				25n	300m	1.0	10m	40 Δ		6.0p	N-PE	Si	200J	T018		
70#	ST57	300MSΔ				25n	300m	500m	10m	40 Δ		6.0p	N-PE	Si	200J	T018		
71#	ST63	300MSΔ				16n	125m	350m	5.0m	40 #Δ		5.0p	N-PE	Si	200J	T018		
72#	ZT190	300MSΔ				150n	300m	400m	1.0m	30		6.0p	N-PL	Si	175A	T018		
73#	ZT191	300MSΔ				300n	300m	400m	1.0m	30		6.0p	N-PL	Si	175A	T018		
74#	ZT192	300MSΔ				200n	300m	400m	1.0m	30		6.0p	N-PL	Si	175A	T018		
75#	ZT193	300MSΔ				200n	300m	400m	1.0m	50		6.0p	N-PL	Si	175A	T018		
76#	BSY37	300MSΔ	5.0nt	20n	30n	13nt	100m	2.0	10m	54		3.5p	N-PE	Si	100J	u18		
77#	BSY50	300MSΔ	5.0nt	20n	30n	13nt	100m	2.0	10m	54		3.5p	N-PE	Si	100J	u18		
78#	BSY36	300MSΔ	7.0nt	20n	30n	14nt	100m	2.0	10m	54		3.5p	N-PE	Si	100J	u18		
79#	2SC62	300MSΔ	8.0n	10n	55n	20n	360m	1.0	10m	3.0 t		6.0p	N-PL	Si	200J	T018		
80	2N4421	300MSΔ	12n			18n	12n	500m	30m	25 Δ#	60	5.0p	N	Si	150S	X55	A	
81	A344	300MSΔ	14n			16n	45m	300m	350m	10m	120	6.0p	N-PE	Si	175J	T018	A	
82	A345	300MSΔ	14n			16n	45m	300m	350m	10m	120	6.0p	N-PE	Si	175J	T018	A	
83	A346	300MSΔ	14n			16n	45m	300m	350m	10m	120	6.0p	N-PE	Si	175J	T018	A	
84	JAN2N851	300MSΔ	16n			40n	300m	350m	10m	20 Δ	35	5.0p	N	Si	300S	T050		
85	JAN2N852	300MSΔ	16n			45n	300m	350m	10m	60 Δ	35	5.0p	N	Si	300S	T050		
86	FK3014	300MSΔ	16n			25n	350m	400m	30m	30 Δ#	3.5	5.0p	N-PE	Si	200S	u17b		
87	FV3014																	

12. SWITCHING TRANSISTORS

IN ORDER OF (1) fab, (2) MAX RISE TIME & (3) TYPE No.

LINE No.	TYPE No.	fab (Hz)	MAX RISE TIME tr (s)	MAX DELAY TIME td (s)	MAX STORE TIME ts (s)	MAX FALL TIME tf (s)	MAX. Pc IN FREE AIR @ 25°C (W)	BIAS			MAX. SAT. RES. (Ω)	Cob (F)	r _{bb} X Cob (s)	DESCRIPTION			C O D E
								Vcb (V)	Ic (A)	hfe				STRUCTURE P-NPN N-PNP	MAX. TEMP (°C)	DWG. No.	
1	CS2481	300MΔ	40n∅		20n	45n∅	650m∅	1.0 ∅	10m∅	40 #Δ			N	Si		R97a	
2	FK914	300MΔ	40n∅			40n∅	350m∅	1.0 ∅	10m∅	55 #		5.0p∅	N-PE	Si		u17b	
3	FV914	300MΔ	40n∅			40n∅	350m∅	1.0 ∅	10m∅	55 #	3.5	6.0p∅	N-PE	Si	300S	u5b	
4 #	PEP7	300M	40n∅		25n	75n	300m	1.0 ∅	10m∅	20		6.0p	N-PE	Si	200	TO18	
5 #	PEP5	300MΔ	40n∅		25n	75n	300m	1.0 ∅	10m∅	40		6.0p	N	Si	200	TO18	
6 #	PEP6	300MΔ	40n∅		25n	75n	300m	1.0 ∅	10m∅	40		6.0p	N	Si	200	TO18	
7 #	PEP7	300MΔ	40n∅		25n	75n	300m	1.0 ∅	10m∅	40		6.0p	N	Si	200	TO18	
8 #	PEP8	300MΔ	40n∅		25n	75n	300m	1.0 ∅	10m∅	40		6.0p	N	Si	200	TO18	
9 #	ST59	300MΔ	40n∅		20n	40n∅	360m	1.0 ∅	10m∅	30 #Δ		9.0p∅	N-PE	Si	200	TO18	
10	D11E404	300MΔ	50n∅		100n∅	80m∅	800m	5.0 ∅	800m	12 #Δ		10p∅	N-EP	Si	200J	TO5	
11	GME9022	300MΔ	50n∅		20n	70n∅	625m∅	1.0 ∅	10m∅	30 #Δ		6.0p∅	N-PE	Si	125S	X45	
12	PET9004	300M	50n			75n∅	250m	1.0 ∅	10m∅	100		6.0p∅	N-PE	Si	125	TO18	
13	XT300	300MΔ	50n∅			85n∅	75m	300m∅	10m	40 #Δ	12	40p∅	P-D	Ge	100S	TO18	
14	D11E405	300MΔ	60n∅		100n∅	80m∅	800m	5.0 ∅	800m	12 #Δ		10p∅	N-EP	Si	200J	TO5	
15	D11E406	300MΔ	70n∅		130n∅	80m∅	800m	5.0 ∅	800m	12 #Δ		9.0p∅	N-EP	Si	200J	TO5	
16	D11E407	300MΔ	70n∅		130n∅	80m∅	800m	5.0 ∅	800m	12 #Δ		9.0p∅	N-EP	Si	200J	TO5	
17	2N779B	320MΔ	18n	50n\$	18n	150m	150m	5.0 ∅	50m∅	35 Δ	4.0	2.5p∅	P	Ge	100S	TO18	A
18	2N846B	320MΔ	18n	50n\$	18n	150m	150m	5.0 ∅	50m∅	20 Δ	14	2.5p∅	P	Ge	100S	TO18	A
19	101A	320M	80n∅		120n	80n	150m	3.0 ∅	50m∅	40	30		P-ME	Ge		TO18	A
20	101B	320M	80n∅		120n	80n	150m	3.0 ∅	50m∅	40	30		P-ME	Ge		TO18	A
21	101M	320M	80n∅		120n	80n	150m	3.0 ∅	50m∅	40	30		P-ME	Ge		TO18	A
22 #	ST64	350MΔ	18n		18n	360m	1.0 ∅	10m∅	40 #Δ			4.0p∅	N-PE	Si		TO18	
23	2N4420	350MΔ	10n	8.0n	15n	10m	500m∅	400m∅	30m∅	30 #Δ		5.0p\$∅	N	Si	150S	X55	
24	2N4422	350MΔ	15n	10n	20n	15n	400m∅	400m∅	30m∅	120 #Δ		5.0p\$∅	N	Si	150S	X55	
25	2N834/46	350MΔ	35n∅		25n	50n	400m	1.0 ∅	10m∅	25 Δ	25	175J	N-E	Si	175J	TO46	
26	2N834/51	350MΔ	35n∅		25n	50n	300m	1.0 ∅	10m∅	25 Δ	25	4.0p∅	N-E	Si	175J	TO51	
27	16J1	350M	35n∅		18n	45n∅	200m	1.0 ∅	10m∅	30 Δ	25	6.0p∅	N-PE	Si	100J	R67	B
28	40220	350MΔ	35n∅	25n\$	40n	75n∅	300m	1.0 ∅	10m∅	25 Δ	25	4.0p∅	N	Si	175	TO52	
29	16J2	350M	45n∅		40n	60n∅	200m	1.0 ∅	10m∅	30 Δ	25	6.0p∅	N-PE	Si	100J	R67	B
30 #	ST58	360MΔ	40n∅		25n	75n∅	360m	1.0 ∅	10m∅	30 #Δ		6.0p∅	N-PE	Si		TO18	
31 #	ST60	400MΔ	18n		18n	360m	1.0 ∅	10m∅	30 #Δ			4.0p∅	N-PE	Si		TO18	
32 #	ST61	400MΔ	18n		18n	360m	1.0 ∅	10m∅	30 #Δ			4.0p∅	N-PE	Si		TO18	
33 #	ST62	400MΔ	18n		18n	360m	1.0 ∅	10m∅	30 #Δ			4.0p∅	N-PE	Si		TO18	
34 #	ST80	400MΔ	10n		10n	360m	1.0 ∅	10m∅	25 #Δ			4.0p∅	N-PE	Si		TO18	
35	GME9001	400MΔ	9.0n∅			13n∅	625m∅	1.0 ∅	10m∅	120 #Δ		4.0p∅	N-PE	Si	125S	X45	
36	GME9002	400MΔ	9.0n∅			15n∅	625m∅	1.0 ∅	10m∅	150 #Δ		4.0p∅	N-PE	Si	125S	X45	
37	2N977	400MΔ	10n		20n	150m	300m	3.0 ∅	40m∅	50 Δ	2.5	8.0p∅	P	Ge	100S	TO18	A
38 #	97EPA	400MΔ	12n∅			18n∅	300m	1.0 ∅	10m∅	60 #Δ		4.0p∅	N-PLT	Si	125J	u46	A
39 #	97EPB	400MΔ	12n∅			18n∅	300m	1.0 ∅	10m∅	150 #Δ		4.0p∅	N-PLT	Si	125J	u46	A
40 #	BSW78	400MΔ	12n∅		10n	15n∅	200m	2.0 ∅	100m∅	10 #Δ	25	2.5p	N-PE	Si	125J	X64	A
41 #	BSX19\$	400MΔ	12n∅		10n	15n∅	360m	1.0 ∅	10m∅	20 Δ	30	4.0p\$	N-PE	Si	200J	TO18	
42 #	BSX19∅	400MΔ	12n∅		10n	18n∅	360m	1.0 ∅	10m∅	60 #Δ	30		N-PE	Si	200J	TO18	A∅
43 #	P346	400MΔ	12n∅		15n	300m	2.0 ∅	10m∅	25 Δ	10	35	4.5p∅	N-PE	Si	175A	TO18	
44	2N743/46	400M	16n∅		14n	10n	300m	1.0 ∅	100m∅	10 Δ	35	5.0p∅	N-E	Si	175J	TO51	
45	2N743/51	400M	16n∅		14n	10n	300m	1.0 ∅	100m∅	10 Δ	35	5.0p∅	N-E	Si	175J	TO51	
46	2N744/46	400M	16n∅		18n	10n	400m	1.0 ∅	100m∅	20 Δ	35	5.0p∅	N-E	Si	175J	TO46	
47	2N744/51	400M	16n∅		18n	10n	300m	1.0 ∅	100m∅	20 Δ	35	5.0p∅	N-E	Si	175J	TO51	
48	CS2218	400M	26n∅		68n∅	1.5 ∅	10 ∅	150m∅	40 #Δ			4.0p	N	Si		R97	
49	CS2219	400M	26n∅		68n∅	1.5 ∅	10 ∅	150m∅	100 #Δ			4.0p	N	Si		R97	
50	CS2221	400M	26n∅		68n∅	1.0 ∅	10 ∅	150m∅	40 #Δ			4.0p	N	Si		R97a	
51	CS2222	400M	26n∅		68n∅	1.0 ∅	10 ∅	150m∅	100 #Δ			4.0p	N	Si		R97a	
52	2N4423	400MΔ	30n	15n	40n	15n	360m	500m∅	30m∅	150 #Δ		6.0p\$∅	P	Si	150S	X55	A
53	40217	400M	60n\$			90n∅	200m	1.0 ∅	10m∅	20 Δ		5.0p	N	Si	175	TO52	
54 #	BSW81	400MΔ	60n∅			90n∅	200m	300m∅	10m∅	30 #Δ		8.0p∅	P-PE1	Si	125J	X64	A
55	MM2894	400MΔ	60n∅			60n∅	1.2 ∅	30 ∅	1.0m∅	25 #Δ	5.0	6.0p∅	P-E	Si	200J	RO38w	
56	MPS2894	400MΔ	60n∅			90n∅	1.0 ∅	500m∅	30m∅	70 #Δ	15	6.0p∅	P-E	Si	125J	X20b	
57 #	V405	400MΔ	80n∅			110n∅	300m	500m∅	30m∅	20 #Δ		6.5p∅	N-PE	Si	175J	TO18	
58 #	2SC63	400M	120n		100n	100n	150m	1.0 ∅	10m∅	40	60		N-ME	Si	175	TO18	
59	2N559	440M1	100 t∅		37n∅	300m	150m	500m∅	10m	45	20	6.0p∅	P-ME	Ge	150	TO28	
60	u7003	450MΔ	15n∅		15n∅	200m	50 ∅	10m∅	70			3.0p∅	N-D	Si	175J	TO51	
61	2N846	450M	18n			18n	60m	500m∅	50m	35	12	1.9p	P-MD	Ge	100S	TO18	
62	2N960/46	460M	50n∅			85n∅	150m	300m∅	10m	40	18	2.2p	P-EM	Ge	100J	TO46	
63	2N962/46	460M	50n∅			100n∅	150m	300m∅	10m	40	20	2.2p	P-EM	Ge	100J	TO46	
64	2N708/46	480MΔ	40n∅		25n	75n∅	360m	40 ∅	10m	30 Δ	40	6.0p∅	N-PL	Si	200J	TO46	
65	2N708/51	480MΔ	40n∅			75n∅	360m	1.0 ∅	10m	30 Δ	40		N-PL	Si	200J	TO51	A
66	TC0914	480MΔ	40n∅	20n\$		40n∅	360m	1.0 ∅	10m∅	30 #Δ	3.5	4.5p	N-PE	Si	200J		
67 #	ST82	500MΔ	13n		13n	360m	1.0 ∅	10m∅	50 #Δ			4.0p∅	N-PE	Si		TO18	
68	ST8110	500M	10n		10n	300m	500m∅	10m∅	20	20	117		N-PE	Si	200J	TO18	
69 #	BSW79	500MΔ	12n∅		13n	18n∅	200m	200m∅	100m∅	20 #Δ	25	2.5p	N-PE	Si	125J	X64	A
70 #	BSX20\$	500MΔ	12n∅		13n	18n∅	360m	1.0 ∅	10m∅	40 Δ	30	4.0p\$	N-PE	Si	200J	TO18	
71 #	BSX20∅	500MΔ	12n∅		13n	21n∅	360m	1.0 ∅	10m∅	120 #Δ	30		N-PE	Si	200J	TO18	A∅
72	FK2369A	500MΔ	12n∅			18n∅	350m∅	1.0 ∅	10m∅	66 #	5.0	4.0p∅	N-PE	Si	200S	u17b	
73	FV2369A	500MΔ	12n∅			18n∅	350m∅	1.0 ∅	10m∅	66 #	5.0	4.0p∅	N-PE	Si	200S	u5b	
74	FK2894	500M	60n∅			75n∅	200m\$	300m∅	10m∅	55 #	7.0	3.3p	PDPE	Si	200J	u17b	
75	FV2894	500M	60n∅			75n∅	200m\$	300m∅	10m∅	55 #	7.0	3.3p	PDPE	Si	200J	u5b	
76 #	2SC679H	600MΔ	13n∅		10n	300m	1.0 ∅	10m∅	40 Δ			3.5p∅	N-PE	Si	175	TO18	
77	2N709/51	600MΔ	15n∅			15n∅	300m	50 ∅	10m∅	20 Δ	100	3.0p∅	N-E	Si	200J	TO51	
78	10E1051	600M	15n∅		6.0n	15n∅	15n∅	10m∅	120 #Δ		3.5		N-PE	Si		u40	
79	2N2475/51	600MΔ	20n∅			15n∅	300m	.50 ∅	50m∅	20 Δ	20	3.0p∅	N-E Si	Si	200J T	O51	
80 #	78EP	600MΔ	20n∅			15n∅	300m	400m∅	20m∅	150 #Δ		3.0p∅	N-PE1	Si	125J	u46	A
81	2N2368/51	640MΔ	12n∅	10n\$		15n∅	300m	1.0 ∅	10m∅	40		4.0p∅	N-PE	Si	200J	TO51	A

13. MISCELLANEOUS TRANSISTORS

IN ORDER OF (1) CATEGORY & (2) TYPE No.

LINE No.	TYPE No.	CATEGORY	M A T	DWG. No.	L C O D E	DESCRIPTION
1	USAF526ES090P	9 P	Si	RO3	3	P-450mW;ISR-.61 max;RB1B2-6.6Kohms max;Ip-5.88uA max.
2	2N1468	1 N-FA	Si	TO5		Pc-25W max; Ip-2.0A max; tr-10ns
3	CK273	1 N	Si	TO5		Pc-25W max; BVCO-25V
4	CK277	1 N	Si	TO5		Pc-25W max; BVCO-90V
5	NS11161	1 N	Si	TO18Ø	AO	ICBO-1.0uA max;Ih-300mA;Vh-9.0V;IA-2.0mA;Ip-2.5A;BVCS-190V min.
6	PADT51	1 P-AD	Ge	TO7		Pc-85mW;BVEBO-2.0V;tr-1.0ns
7	SYL3013	1 N-EM	Si	TO18		Pc-30W; BVCO-75V; BVEBO-5.0V; Ic-20A; hFE-20 min at Ic-10 ma.
8	2N592	2 P	Ge	TO5		BVCO-20V;hib-30;hob-2.0umhos;ICBO-5.0uA;hfe-25;Cob-35pf;NF-16db.
9	2N593	2 P	Ge	TO9		Pc-150mW; BVCO-20V; hFE-80;Ø-50 deg. C/mW; ICBO-25 ua.
10#	ASY60	2 P-ΔΔ	Ge	R47		Pc-20W max; BVCO-20V; fab-11.0Mc; hFE-50; ICBO-5uA max.
11#	ASY64	2 P-ΔΔ	Ge	R47		Pc-20W max; BVCO-30V; fab-3.5Mc; hFE-35; ICBO-3uA max.
12#	ASY66	2 P-ΔΔ	Ge	R47		Pc-20W max; BVCO-30V; fab-6.0Mc; hFE-35; ICBO-5uA max.
13	C301A	2 P-Δ	Si	TO5		Pc-25 max; BVCO-70V; IC-50mA MAX; FAB-04Mc
14	GT34S	2 P	Si	TO22		Pc-150mW;BVCO-40V;BVEBO-40V;ICBO-100uA;hfe-15 at 10ma.
15	TK20C	2 P-A	Ge	R47		Pc-20W Max; BVCO-30V; fab-6.0
16#	TK21C	2 P-ΔΔ	Ge	R47		Pc-20W max; BVCO-30V; fab-2.0Mc; hFE-21; ICBO-3uA max.
17#	TK24C	2 P-A	Ge	R47		Pc-20W max; BVCO-30V; fab-3.5
18#	TK25C	2 P-A	Ge	R47		Pc-20W max; BVCO-20V; fab-11.0
19	2N2457	3 PL	Si	TO5		Vpo-5.0V max; ho-125u mhos min; hi-50M ohms Typ.
20	2N2458	3 PL	Si	TO51		Vpo-5.0V max; ho-125u mhos min; hi-100M ohms Typ.
21	2N2620	3 N	Si	TO5		BVDGO-50V min;gm-3.0m mhos; Vpo-20V max; IGSS-10uA max.
22	2N2794	3 P-D	Si	TO5		Pc-30W; BVDGO - 20V; IG - 50mA; IGSS - 2.0nA
23	3N98	3 N	Si	RO38c		Pc-150mW at 85C;Vds-32V; Id-7.7mA max. at 12V-VDS
24	3N99	3 N	Si	RO38c		Pc-150mW at 85C;Vds-32V; Id-10.5mA max. at 12V-VDS
25	4Z9-4Z12	3 P	Si	TO5		N-Channel
26	11005	3 P	Si	L18		Pc-1.0W;BVDS-30V min;IDSS-35nA max;gFS-650 umho. Matched pair
27	31004	3 P	Si	L18		4 Leaded TO5 or TO46; BVDS-25V; IDSS-100mA max; gFS-850u mhos.
28	51009	3 P	Si	RO38k		BVDS-20V min;IDSS-10nA max;gFS-70 umho;Vgs-20V max
29	C610	3 N-Δ	Si	TO5		Pc-25W max;Vpo-20V max;ho-100u mhos min;IGDO-10uA;BVGD-40V max.
30	C611	3 N-Δ	Si	TO5		Pc-25W max;Vpo-20V max;ho-200u mhos min;IGDO-10uA;BVGD-40V max.
31	C612	3 N-Δ	Si	TO5		Pc-25W max;Vpo-20V max;ho-400u mhos min;IGDO-10uA;BVGD-40V max.
32	C613	3 N-Δ	Si	TO5		Pc-25W max;Vpo-20V max;ho-800u mhos min;IGDO-10uA;BVGD-40V max.
33	C614	3 N-Δ	Si	TO5		Pc-25W max;Vpo-10V max;ho-100u mhos min;IGDO-10uA;BVGD-40V max.
34	C615	3 N-Δ	Si	TO5		Pc-25W max;Vpo-10V max;ho-500u mhos min;IGDO-10uA;BVGD-40V max.
35	C620	3 N	Si	TO5		Pc-25W max;Vpo-10V max;ho-50u mhos min;IGDO-10uA;NF-5.0db max.
36	C621	3 N	Si	TO5		Pc-25W max;Vpo-10V max;ho-50u mhos min;IGDO-10uA;NF-5.0db max.
37	C622	3 N	Si	TO5		Pc-25W max;Vpo-10V max;ho-50u mhos min;IGDO-10uA;NF-2.0db max.
38	C623	3 N	Si	TO5		Pc-25W max;Vpo-10V max;ho-50u mhos min;IGDO-10uA;NF-2.0db max.
39	C624	3 N	Si	TO5		Pc-25W max;Vpo-10V max;ho-50u mhos min;IGDO-10uA;NF-50db max.
40	C625	3 N	Si	TO5		Pc-25W max;Vpo-10V max;ho-50u mhos min;IGDO-10uA;NF-50db max.
41	C631	3 N-Δ	Si	TO5		Pc-25W max;Vpo-30V max;ho-125u mhos min;BVGD-150V max.
42	C632	3 N-Δ	Si	TO5		Pc-25W max;Vpo-40V max;ho-100u mhos min;BVGD-250V max.
43	C633	3 N-Δ	Si	TO5		Pc-25W max;Vpo-40V max;ho-100u mhos min;BVGD-350V max.
44	C640	3 N	Si	OV10		Pc-875W max;Vpo-10V max;ho-1000u mhos min;IGDO-10uA
45	C641	3 N	Si	OV10		Pc-875W max;Vpo-10V max;ho-2000u mhos min;IGDO-10uA
46	C642	3 N	Si	OV10		Pc-875W max;Vpo-10V max;ho-3000u mhos min;IGDO-10uA
47	C643	3 N	Si	OV10		Pc-875W max;Vpo-10V max;ho-4500u mhos min;IGDO-10uA
48	C644	3 N	Si	OV10		Pc-875W max;Vpo-10V max;ho-6000u mhos min;IGDO-10uA
49	C650	3 N-ΔΔ	Si	TO5		Pc-25W max; ICBO-10uA
50	C651	3 N-ΔΔ	Si	TO5		Pc-25W max; ICBO-10uA
51	C652	3 N-ΔΔ	Si	TO5		Pc-25W max; ICBO-10uA
52	C653	3 N-ΔΔ	Si	TO5		Pc-25W max; ICBO-10uA
53	DA102	3 N	Si	L21		Diff Ampl.;Pc-75W both sides;BVDGO-50V min;IGSS-10nA max.
54	DA402	3 N	Si	L21		Diff Ampl.;Pc-75W both sides;BVDGO-50V min;IGSS-25nA max.
55	DPT200	3 N	Si	RO38h		Insulated Gate;VDSS-25V;gm-1500uV min;Enhancement Type
56	DPT201	3 N	Si	RO38h		Insulated Gate;VDSS-25V;gm-1500uV min;Depletion Type
57	FE250	3 N-PL	Si	TO18		BVDGO-200V min;gm-400u mhos; Vpo-10V max; IDGO-2.0nA max.
58	FE252	3 N-PL	Si	TO18		BVDGO-200V min;gm-300u mhos; Vpo-5.0V max; IDGO-2.0nA max.
59	FE254	3 N-PL	Si	TO18		BVDGO-200V min;gm-200u mhos; Vpo-2.5V max; IDGO-2.0nA max.
60	FE350	3 N-PL	Si	TO18		BVDGO-200V min;gm-1000u mhos; Vpo-10V max; IDGO-5.0nA max.
61	FE352	3 N-PL	Si	TO18		BVDGO-200V min;gm-700u mhos; Vpo-5.0V max; IDGO-5.0nA max.
62	FE354	3 N-PL	Si	TO18		BVDGO-200V min;gm-500u mhos; Vpo-2.5V max; IDGO-5.0nA max.
63	FE1900	3 N	Si	R82		BVDGO-30V min; IGSS-2.0nA max; Ron-50 ohms max; Vp-15V max.
64	FG34	3 N-PL	Si	TO5		BVDGO-50V min;gm-1.0m mhos; Vpo-20V max; IDGO-10uA max.
65	FG35	3 N-PL	Si	TO5		BVDGO-100V min;gm-1.0m mhos; Vpo-20V max; IDGO-10uA max.
66	FG36	3 N-PL	Si	TO5		BVDGO-150V min;gm-1.0m mhos; Vpo-20V max; IDGO-10uA max.
67	FG37	3 N-PL	Si	TO5		BVDGO-200V min;gm-1.0m mhos; Vpo-20V max; IDGO-10uA max.
68	FSP400	3 PL	Si	TO5		Vpo-3.0V; VdGO-30V; IDGO-10 na max.
69	MM21021	3 N-MOS	Si	RO38y		Pd-300mW;VDS-25V;Id-30mA;VGS(th)4Vmax;Yfs-1000umhos min.
70	MM21031	3 P-MOS	Si	RO38y		Pd-300mW;VDS-25V;Id-30mA;VGS(th)5Vmax;Yfs-1000umhos min.
71#	PC500	3 P-PL	Si	RO38L		Pc-0.7W max; BVCO-50V; gm-.05 umhos min; Igs-10 ua
72	P1003	3 P-PL	Si	RO38L		BVDGO-50V min; gm-1000 umhos min; Vp-3.0V max; Pd-30W
73	P1004	3 P-PL	Si	RO38L		BVDGO-50V min; gm-2500 umhos min; Vp-5.0V max; Pd-30W
74	P1005	3 P-PL	Si	RO38L		BVDGO-50V min; gm-3500 umhos min; Vp-8.0V max; Pd-30W
75	PT320	3 MOSA S	Si	RO38y		Pd-120mW;BVDS-25V;BVGS-50V;Yfs-2500umhos;VG8th1-3.0V max.
76	SA2345	3 N-PL	Si	RO38f		BVDGO-50V min;IGSS-50nA max;RF-80mohms min;IG-20nA max.
77#	ST3	3 Ge	Si	RO38d		Pc-200mW max; fab-200Mc; BVCO-100V; TJ-85 deg. C max.
78	SU2000	3 N-PL	Si	RO38d		BVDGO-50V min;gm-750umhos max;Vp-4.0V max;CDG-35pt max.
79	SU2020	3 N-PL	Si	L21		Matched Pair;BVDGO-50Vmin;IDSS1/IDSS2-.95-1.0;gm1/gm2-.95-1.0
80	SU2021	3 N-PL	Si	L21		Matched Pair;BVDGO-50Vmin;IDSS1/IDSS2-.90-1.0;gm1/gm2-.90-1.0
81	SU2022	3 N-PL	Si	L21		Matched Pair;BVDGO-50Vmin;IDSS1/IDSS2-.90-1.0;gm1/gm2-.90-1.0
82	SU2023	3 N-PL	Si	L21		Matched Pair;BVDGO-50Vmin;IDSS1/IDSS2-.80-1.0;gm1/gm2-.80-1.0
83	SU2024	3 N-PL	Si	L21		Matched Pair;BVDGO-50Vmin;IDSS1/IDSS2-.95-1.0;gm1/gm2-.95-1.0
84	SU2025	3 N-PL	Si	L21		Matched Pair;BVDGO-50Vmin;IDSS1/IDSS2-.90-1.0;gm1/gm2-.90-1.0
85	SU2026	3 N-PL	Si	L21		Matched Pair;BVDGO-50Vmin;IDSS1/IDSS2-.90-1.0;gm1/gm2-.90-1.0
86	SU2027	3 N-PL	Si	L21		Matched Pair;BVDGO-50Vmin;IDSS1/IDSS2-.80-1.0;gm1/gm2-.80-1.0
87	SU2030	3 N-PL	Si	L21		Matched Pair;BVDGO-50Vmin;gm-300umhos min;gm1/gm2-.95-1.0
88	SU2031	3 N-PL	Si	L21		Matched Pair;BVDGO-50Vmin;gm-400umhos min;gm1/gm2-.95-1.0
89	SU2033	3 N-PL	Si	L21		Matched Pair;BVDGO-50Vmin;gm-2500umhos min;gm1/gm2-.95-1.0
90	SU2035	3 N-PL	Si	L21		Matched Pair;BVDGO-50Vmin;gm-2500umhos min;gm1/gm2-.95-1.0
91	SU2037	3 N-PL	Si	TO59		BVDGO-100V min;gm-20,000umhos min;Vp-15V max;Pd-10W at Tc 25 deg.
92#	THP169	3 Ge	Si	TO59		Max. Pc-80mW; BVCO-80V;Derate Free Air 3.3 deg.C/mW;85J
93#	THP170	3 Ge	Si	TO59		Max. Pc-50mW; BVCO-50V;Derate Free Air 3.3 deg.C/mW;85J
94#	THP171	3 Ge	Si	TO59		Max. Pc-80mW; BVCO-80V;Derate Free Air 3.3 deg.C/mW;85J
95#	THP172	3 Ge	Si	TO59		Max. Pc-50mW; BVCO-50V;Derate Free Air 3.3 deg.C/mW;85J
96	TIS11	3 P-MOS	Si	RO38e		BVGS-30V;IDSS-.01mA max;Yfs-800umhos min;Ciss-8.0pf max.
97	TIX690	3 Ge	Si	TO12		Max. Coli. disc; 500mW; Max temp. 175 deg. C. J.
98	TIX881	3 P-A	Ge	TO11		Pd-150mW; BVDGO-40V min; Yfs-40u mho max; Yfs-400u mho min.
99	TIX882	3 P-A	Ge	TO11		Pd-150mW; BVDGO-40V min; Yfs-40u mho max; Yfs-600u mho min.
100	TIX883	3 P-A	Ge	TO11		Pd-150mW; BVDGO-40V min; Yfs-40u mho max; Yfs-800u mho min.
101	TIX811	3 PMOS	Si	RO38y		Pd-300mW;BVDS-30V;IDSS-10nA;VGS(th)3.0V min;Yfs-800umhos min.
102	u1327	3 N-PL	Si	TO18		BVDGO-50V min;gm1-1.100umhos;gm2-800umhos;Vps-4.0V max;Pd-300mW.
103	u3000	3 N-PL	Si	TO18		BVDGO-30V min;gm-300umhos min;Vp-15V max;Pd-225mW.
104	u3001	3 N-PL	Si	TO18		BVDGO-30V min;gm-250umhos min;Vp-10V max;Pd-60mW.
105	u3002	3 N-PL	Si	TO18		BVDGO-30V min;gm-200umhos min;Vp-5.10V max;Pd-15mW.
106	u3010	3 N-PL	Si	TO18		BVDGO-30V min;gm-750umhos min;Vp-15V max;Pd-350mW.
107	u3011	3 N-PL	Si	TO18		BVDGO-30V min;gm-600umhos min;Vp-10V max;Pd-120mW.
108	u3012	3 N-PL	Si	TO18		BVDGO-30V min;gm-500umhos min;Vp-5.0V max;Pd-30mW.
109	U287	3 N-PL	Si	TO5		BVDGO-30V min;RON-50 ohms max;Vp-15V max;IGSS-2.0nA max.
110	U1327	3 N-PL	Si	L36		BVDGO-50V min;gm1-1100umhos;gm2-800umhos;Vps-4.0V max;Pd-30W

13. MISCELLANEOUS TRANSISTORS

IN ORDER OF (1) CATEGORY & (2) TYPE No.

LINE No.	TYPE No.	CATEGORY	STRUCTURE	MATERIAL	DWG. No.	LEAD	CODE	DESCRIPTION
1	U3000	3	N-PL	Si	TO18			BVDGO-30V min; gm-300umhos min; Vp-15V max; Pd-225W
2	U3001	3	N-PL	Si	TO18			BVDGO-30V min; gm-250umhos min; Vp-10V max; Pd-06W
3	U3002	3	N-PL	Si	TO18			BVDGO-30V min; gm-200umhos min; Vp-5.0V max; Pd-015W
4	U3010	3	N-PL	Si	TO18			BVDGO-30V min; gm-750umhos min; Vp-15V max; Pd-35W
5	U3011	3	N-PL	Si	TO18			BVDGO-30V min; gm-600umhos min; Vp-10V max; Pd-12W
6	U3012	3	N-PL	Si	TO18			BVDGO-30V min; gm-500umhos min; Vp-5.0V max; Pd-03W
7	X1004	3		Si				4 leaded TO5 or TO46; BVDS-50V; IDSS-100nA max; gfs-1000u mhos
8#	ZFT16	3	N-PL	Si	L40			Pt-35W; Vpo-5.0V; BVDS-50V; IDO-6.0mA; BVDG-65V.
9#	ZFT18	3	N-PL	Si	L40			Pt-35W; Vpo-5.0V; BVDS-100V; IDO-6.0mA; BVDG-100V.
10	2N1019	4	PNN	Ge-Si				Pc-10W max; BVBCO-30V; Ic-3.0A max; hFE-15000 Typ/VCE-5.0V; Ic-1.0A.
11	2N1020	4	NPP	Ge-Si				Pc-10W max; BVBCO-30V; Ic-3.0A max; hFE-15000 Typ/VCE-5.0V; Ic-1.0A.
12	2N67	5		Δ		Ge		Max. Coll. Dist. 100mW; Ic 50mA; BVEB 50V; Max. Temp 85 deg.CS
13#	2SB43	5	P-A	Ge	TO1			fab-1.0Mc; BVBCO-25V; IC-05A max; hFE-70 at IC-05A
14#	AC154/AC157	5	A	Ge	TO1			Matched pair of AC154 and AC157
15#	AC166/AC168	5	A	Ge	TO1			Matched pair of AC166 and AC168
16	GA53080	5	Δ	Ge				Max. Coll. Dist. 250mW; FaB 10mC; BVCB 100V; Ic 50mA; BVEB 100V
17#	2AT128	6	P-A	Ge	TO1			Matched Pair of AT128; hFE/hFE2-83 max.
18	2N214MP	6	N-A	Ge				Max. Coll. Diss. 180mW; FaB 80mC; Max. Temp 85J; Matched pair of 2N214
19	2N3162	6	N	Si	L8			VCEO-25V max; ICBO-10nA max; hFE-50 min; hFE1/hFE2-1.0 max.
20	2N3514	6	N	Si	X26			PT-1.4W both sides; VCBO-80V max; VCEO-40V max; VEBO-5.0V max.
21	2N3517	6	N	Si	X26			PT-1.4W both sides; VCBO-100V max; VCEO-60V max; VEBO-7.0V max.
22	2N3519	6	N	Si	X26			PT-1.4W both sides; VCBO-60V max; VCEO-30V max; VEBO-7.0V max.
23	2N3523	6	N	Si	X26			PT-1.4W both sides; VCBO-70V max; VCEO-55V max; VEBO-7.0V max.
24	2N3587	6	N	Si	L19			Pc-300mW ea; BVBCO-60V ea; hFE-500 max; Ic-1mA; BVCEO-45V ea; BVEBO-5V
25	2N3941	6	N	Si	L2d			BVCBO-60V; IC-50mA; Pt-1.5W; VBE(1-2)-3.0mV; hFE1/2-90min.
26	2N3942	6	N	Si	L2d			BVCBO-60V; IC-50mA; Pt-1.5W; VBE(1-2)-10mV; hFE1/2-80min.
27	2N3943	6	N	Si	L2j			BVCBO-60V; IC-50mA; Pt-75W; VBE(1-2)-3.0mV; hFE1/2-90min.
28	2N3944	6	N	Si	L2j			BVCBO-60V; IC-50mA; Pt-75W; VBE(1-2)-10mV; hFE1/2-80min.
29	2N4042	6	N	Si	L2m			BVCBO-60V; IC-10mA; Pt-50W; VBE(1-2)-3.0mV; hFE1/2-90min.
30	2N4043	6	N	Si	L2m			BVCBO-45V; IC-10mA; Pt-50W; VBE(1-2)-5.0mV; hFE1/2-80min.
31	2N4099*	6	N	Si	L2m			VBE(1-2)-5.0mV max; IB(1-2)-10nA max; AIB(1-2)-70nA/C max.
32#	2OC26	6	P-A	Ge	TO3			Matched Pair of OC26; hFE1/2-15 at IE-3.0A.
33	2SB30	6	P-A	Ge	TO3			BVCBO-15V; Ic-50A max; fae-7.0Mc; hFE-68/Ic-20A
34	2SB31	6	P-A	Ge	TO3			BVCBO-15V; Ic-50A max; fae-7.0Mc; hFE-115/Ic-20A
35#	2SB145	6	P-A	Ge	TO3			BVCBO-30V; Ic-1.0A max; fae-7.0Mc; hFE-37/Ic-1.0A
36#	2SB146	6	P-A	Ge	TO3			BVCBO-30V; Ic-1.0A max; fae-7.0Mc; hFE-75/Ic-1.0A
37#	2SC96	6	N-PE	Si	L16			VCEO-15V; IC-150mA; PC-500mW max; hFE1/hFE2-80-1.0 at 1mA
38	2SFT212	6	P	Ge	TO3		∅	BVCBO-30V; Pc-30W at Tc; hFE-40 at FC-2.0A; fab-200kc min.
39#	2T3041	6						Max. Thermal Res. 3.0 oC/mW; Matched Pair 2T3031
40#	2T3042	6						Max. Thermal Res. 3.0 oC/mW; Matched Pair 2T3032
41#	2T3043	6						Max. Thermal Res. 3.0 oC/mW; Matched Pair 2T3033
42#	2xOC308	6	P	Ge				Pair of OC308
43#	2xOC318	6	P	Ge				Pair of OC318
44	3N96*	6	P	∅	Si	L24b		VGS(1-2)-100mV max; ΔVGS(1-2)/ΔT-1mV/deg.C; Yfs1/2-.95 min.
45	3N97*	6	P	∅	Si	L24b		VGS(1-2)-200mV max; ΔVGS(1-2)/ΔT-8mV/deg.C; Yfs1/2-.95 min.
46	4JD12X043	6	N-PE	Si	L2b			Pt-800mW; Two 2N2193 Transistors
47	4JD12X047	6	N-PE	Si	L2b			Pt-600mW; Two 2N2195 Transistors
48#	12A8	6	N	Si	L2b			Pt(Both Sides)-500mW; hFE1/hFE2-60min; VBE1-VBE2-15mV max.
49	12A304	6	N-PL	Si	X26			Pt-250mW ea; ICBO-2.0nA max; hFE-25min; Vbe1/Vbe2-5.0mV max; ft-60Mcmmin.
50	12A308	6	N-PL	Si	X26			Pt-1.4W both sides; VCBO-50V min; hFE match-40%; VBE match-15mV.
51	12A904	6	N-PL	Si	X27			Pt-250mW ea; ICBO-2.0nA max; hFE-25min; Vbe1/Vbe2-5.0mV max; ft-60Mcmmin.
52	12G301	6	N-PL S	Si X 26				Pt-1.4W Both Sides; VCBO-35V min; ICBO-20nA.
53	12G302	6	N-PL	Si	X26			Pt-1.4W Both Sides; VCBO-35V min; ICBO-20nA.
54	12H301	6	N-PL	Si	X26			Pt-1.4W Both Sides; VCBO-30V min; ICBO-10nA.
55	12H302	6	N-PL	Si	X26			Pt-1.4W Both Sides; VCBO-30V min; hFE Match-80/1.0; VBE Match 10mV.
56	12H303	6	N-PL	Si	X26			Pt-1.4W Both Sides; VCBO-25V min; hFE Match-85/1.0
57	12J301	6	N-PL	Si	X26			Pt-1.4W Both Sides; VCBO-40V; ICBO-40uA.
58	12J302	6	N-PL	Si	X26			Pt-1.4W Both Sides; VCBO-40V; ICBO-40uA; hFE Match-80/1.0
59	12J303	6	N-PL	Si	X26			Pt-1.4W Both Sides; VCBO-40V; ICBO-40uA; hFE Match-80/1.0
60	A520	6	N-PL	Si	RO52g			VCBO-80V; Ic-50mA max; Pt-1200mW(both sides); VBE1-VBE2-3mV; hFE-40 min.
61	A521	6	N-PL	Si	RO52g			VCBO-80V; Ic-50mA max; Pt-1200mW(both sides); VBE1-VBE2-3mV; hFE-100 min.
62	A640*	6	N∅	Si	X36a			VBE1/VBE2-3.0mV max; hFE1/hFE2-1.0 max; Pt-30W(both); IC-30mA.
63	A641*	6	N∅	Si	X36a			VBE1/VBE2-3.0mV max; hFE1/hFE2-1.0 max; Pt-30W(both); IC-30mA.
64	A642*	6	N∅	Si	X36a			VBE1/VBE2-3.0mV max; hFE1/hFE2-1.0 max; Pt-30W(both); IC-30mA.
65	ASA2	6	N-PL	Si	L2			Pc-75W; BVBCO-60V; BVEBO-7.0V; HFE-45min at IC-10mA, VCE-10V.
66	ASA1000	6	N-PL	Si	TO5			Pc-50W max. BVBCO-60V; hFE1/hFE2-1.25max; VBE1-VBE2-10 mV max.
67	ASA1001	6	N-PL	Si	TO5			Pc-50W max. BVBCO-60V; hFE1/hFE2-1.1 max; VBE1-VBE2-20 mV max.
68#	BFX10	6	P-PE	Si	L2d			Pt-55W; ICBO-10nA max; hFE-2 min; hFE bal 80 min; VBE diff 3mV max.
69#	BSY42	6	N-PE	Si	L2			Pc-70W max; BVBCO-20V; Ic-200mA; hFE-25-120; ft-200 min.
70#	BSY43	6	N-PE	Si	L2			Pc-70W max; BVBCO-15V; Ic-200mA; hFE-30-120; ft-300 min.
71	CD91*	6	P-E	Si	L17a			hFE1/2-80 min; VBE1/2-5.0mV max; ΔVBE1/2-10uV/C max.
72	CD92*	6	P-E	Si	L17a			hFE1/2-80 min; VBE1/2-10mV max; ΔVBE1/2-20uV/C max.
73	CD93*	6	P-E	Si	L17a			hFE1/2-80 min; VBE1/2-5.0mV max; ΔVBE1/2-10uV/C max.
74	CD94*	6	P-E	Si	L17a			hFE1/2-80 min; VBE1/2-10mV max; ΔVBE1/2-20uV/C max.
75	CD95*	6	P-E	Si	L17a			hFE1/2-80 min; VBE1/2-5.0mV max; ΔVBE1/2-10uV/C max.
76	CD96*	6	P-E	Si	L17a			hFE1/2-80 min; VBE1/2-10mV max; ΔVBE1/2-20uV/C max.
77	CD97*	6	P-E	Si	L17a			hFE1/2-80 min; VBE1/2-5.0mV max; ΔVBE1/2-10uV/C max.
78	CD98*	6	P-E	Si	L17a			hFE1/2-80 min; VBE1/2-10mV max; ΔVBE1/2-20uV/C max.
79	CD912*	6	P-E	Si	TO46		A∅	hFE1/2-80 min; VBE1/2-5.0mV max; ΔVBE1/2-10uV/C max.
80	CD922*	6	P-E	Si	TO46		A∅	hFE1/2-80 min; VBE1/2-10mV max; ΔVBE1/2-20uV/C max.
81	CD932*	6	P-E	Si	TO46		A∅	hFE1/2-80 min; VBE1/2-5.0mV max; ΔVBE1/2-10uV/C max.
82	CD942*	6	P-E	Si	TO46		A∅	hFE1/2-80 min; VBE1/2-10mV max; ΔVBE1/2-20uV/C max.
83	CD952*	6	P-E	Si	TO46		A∅	hFE1/2-80 min; VBE1/2-5.0mV max; ΔVBE1/2-10uV/C max.
84	CD962*	6	P-E	Si	TO46		A∅	hFE1/2-80 min; VBE1/2-10mV max; ΔVBE1/2-20uV/C max.
85	CD972*	6	P-E	Si	TO46		A∅	hFE1/2-80 min; VBE1/2-5.0mV max; ΔVBE1/2-10uV/C max.
86	CD982*	6	P-E	Si	TO46		A∅	hFE1/2-80 min; VBE1/2-10mV max; ΔVBE1/2-20uV/C max.
87	DFNA3-50*	6	N-E	Si	TO18			Pt-300mW both sides; VGS(1-2)-50mV; gfs1/2-.95umhos min.
88	DFNA3-100*	6	N-E	Si	TO18			Pt-300mW both sides; VGS(1-2)-100mV; gfs1/2-.95umhos min.
89	DP1001*	6	P*	Si	TO71			gm1/2-.95 min; VGS(1-2)-5.0mV; ΔVGS(1-2)/ΔT-5uV/C.
90	DP1002*	6	P*	Si	TO71			gm1/2-.95 min; VGS(1-2)-15mV; ΔVGS(1-2)/ΔT-10uV/C.
91	DP1003*	6	P*	Si	TO71			gm1/2-.95 min; VGS(1-2)-5.0mV; ΔVGS(1-2)/ΔT-25uV/C.
92	DP1004*	6	P*	Si	TO71			gm1/2-.95 min; VGS(1-2)-15mV; ΔVGS(1-2)/ΔT-25uV/C.
93	DP1005*	6	P*	Si	TO71			gm1/2-.90 min; VGS(1-2)-25mV; ΔVGS(1-2)/ΔT-50uV/C.
94	DP1006*	6	P*	Si	TO71			gm1/2-.95 min; VGS(1-2)-5.0mV; ΔVGS(1-2)/ΔT-10uV/C.
95	DP1007*	6	P*	Si	TO71			gm1/2-.95 min; VGS(1-2)-15mV; ΔVGS(1-2)/ΔT-10uV/C.
96	DP1008*	6	P*	Si	TO71			gm1/2-.95 min; VGS(1-2)-5.0mV; ΔVGS(1-2)/ΔT-25uV/C.
97	DP1009*	6	P*	Si	TO71			gm1/2-.95 min; VGS(1-2)-15mV; ΔVGS(1-2)/ΔT-25uV/C.
98	DP1010*	6	P*	Si	TO71			gm1/2-.90 min; VGS(1-2)-2.0mV; ΔVGS(1-2)/ΔT-50uV/C.
99	HA7807	6	P-A	Si	TO5			Pair of HA7806; Vo-2.0mV max.
100	HA7809	6	P-A	Si	TO5			Pair of HA7808; Vo-1.5mV max.
101	KY4042	6	N	Si	u36			BVCBO-60V; IC-10mA; Pt-50W; ΔVBE-3.0uV/OC; VBE(1-2)-3.0mV; hFE1/2-90min.
102	KY4043	6	N	Si	u36			BVCBO-45V; IC-10mA; Pt-50W; ΔVBE-10uV/OC; VBE(1-2)-3.0mV; hFE1/2-80min.
103	KY4099	6	N	Si	u36			BVCBO-55V; IC-10mA; Pt-50W; ΔVBE-5.0uV/OC; VBE(1-2)-5.0mV; hFE1/2-85min.
104	MA7807	6	P-A	Si	TO5		A	Matched pair of HA7806; ΔVoff-100uV max.
105	MA7809	6	P-A	Si	TO5		A	Matched pair of HA7808; ΔVoff-50uV max.
106	MD1123	6	P	Si	L2			hFE-30/120 at IC-100uA; (VBE1-VBE2) max-10mV at IC-100uA
107	MD1123F	6	P	Si	X22			hFE-30/120 at IC-100uA; (VBE1-VBE2) max-10mV at IC-100uA.
108	MD1124	6	P	Si	L2			hFE-30/120 at IC-100uA; (VBE1-VBE2) max-10mV at IC-100uA
109	MD1124F	6	P	Si	X22			hFE-30/120 at IC-100uA; (VBE1-VBE2) max-10mV at IC-100uA.
110	MD1125	6	P	Si	L2			hFE-30/120 at IC-100uA; (VBE1-VBE2) max-5.0mV at IC-100uA.

13. MISCELLANEOUS TRANSISTORS

IN ORDER OF (1) CATEGORY & (2) TYPE No.

LINE No.	TYPE No.	1	CATEGORY	M	A	DWG. No.	L	C	O	D	E	DESCRIPTION
			STRUC- TURE		T							
1	MD1125F	6	P	Si	X22							hFE-30/120 at IC-100uA;(VBE1-VBE2) max.-5.0mV at IC-100uA.
2	MD1133	6	N-EA	Si	L2d							Pt(Both Sides)-600mW;VCBO-60V;hFE-30 min at IC-150mA and VCE-5V.
3	MD1133F	6	N-EA	Si	L2f							Pt(Both Sides)-350mW;VCBO-60V;hFE-30 min at IC-150mA and VCE-5V.
4	ME5011	6	N-PE	Si	L2							BVCEO-10V; BVEBO-3.0V;ICBO-10mA max at VCB-10V;hFE-60min/IC-100uA
5#	NKT450X2	6	P	Ge	TO3							BVCEO-38V; hFE-30 min. at 1.0A; ICBO-100uA at 1.5V.
6	NS7000	6	N	Si	X17							Pd-200mW;BVCEO-45V min;hFE-125 at 10uA;hFE1/hFE2-90 min.
7	NS7001	6	N	Si	L2							Pd-300mW;BVCEO-45V min;hFE-125 at 10uA;hFE1/hFE2-90 min.
8	NS7070	6	N-PL	Si	X23							Pt(both sides)-200mW;hFE1/2-.90min;VBE(1-2)-5.0mVmax.
9#	OC740M	6	P	Si	RO66							50uV max; Voff-2.0mV max.
10#	OC740Q	6	P	Si	RO66							50uV max; Voff-2.0mV max; Quadruple.
11	RT3501	6	P-PL	Si	TO46							Matched Pair of RT3500; Pd-400mW
12	SA2254	6	N	Si	L8a							hFE1/hFE2-8-1.0;VBE1-VBE2-10mV at IC-100uA;BVCEO-60V min.
13	SA2255	6	N	Si	L8a							BVCEO-45V min;hFE1/hFE2-8-1.0;VBE1-VBE2-10mV at IC-50uA
14#	TA-M93	6	NPN	Si	TO5							Dual 2N930;10% hFE match;5.0mV VBE match;hFE at 10uA-50 min.
15	U205*	6	N	Si	TO71							Pt-30W;IG(1-2)-5.0mA max;VGS(1-2)-5.0mV max;gfs1/2-.95 min.
16	U206*	6	N	Si	TO71							Pt-30W;IG(1-2)-5.0mA max;VGS(1-2)-10mV max;gfs1/2-.95 min.
17	U207*	6	N	Si	TO71							Pt-30W;IG(1-2)-5.0mA max;VGS(1-2)-15mV max;gfs1/2-.95 min.
18	UD1000	6	P-PE	Si	L38							Pt(Both Sides)-200mW;BVCEO-50V;Vo(1-2)-100uV max;IB and IC-20mA.
19	UD2000	6	P-PE	Si	L2n							Pt-400mW;BVCEO-50V;VBE1/2-5mV max;hFE1/2-.90 min;ΔVBE1-2-10uV/degC
20	2N318	7	P-A	Ge								Pc-50mW; VCE-12V max; Sens-25uA/ft can;fab-750kc.
21	2N469	7	P	Ge	X42							BVCEO-6.0V;hfe-50;hie-3.0kohms;ICBO-15uA;Sens-15uA/FC;Cob-30pf.
22	2N469A	7	P-A	Ge								Pc-.05W max;BVCEO-20V;Photo-Sens-14.9ua/ft max;Area-.0011 sq. in.
23	2N577	7	P	Ge								Pt-25mW; IC-10mA; Idark-300uA; Photosens-30A/lumen.
24	2N1392	7	P-A	Ge								Pc-.05W max;BVCEO-20V;Photo-Sens-6.9ua/ft max;Area-.0011 sq. in.
25	2N1393	7	P-A	Ge								Pc-.05W max;BVCEO-20V;Photo-Sens-15ua/ft min;Area-.0011 sq. in.
26	2N1394	7	P-A	Ge								Pc-.05W max;BVCEO-10V;Photo-Sens-7.0ua/ft;Area-.0011 sq. in.
27	800	7	N-G	Ge								Max. Coll. Dist. 65mW; BVCE 20V; IC 5.0mA; Max. Temp. 75 deg.C.A.
28#	BPY62	7	N-PE	Si	X8a							Pt-20W;IC-1.0mA min. at B-1000 lux;Sens-1.0uM;VCE-15V.
29	EIP	7	P	Si								Idk-10uA; Ilt-10mA; Sens-300uA/1m.
30#	ES3501	7	P-A	Ge	R71							Pc-36mW at 45 deg. C;BVCEO-10V; IC-10mA max;Photosens-20uA/ft.
31#	ES3511	7	P-A	Ge	R88							Pc-50mW; BVCEO-25V; IC-20mA max; Photosens-1.0uA/Lux
32	FF400*	7	N-EA	Si	TO72							IG(Light)-15nA/FC min;ID(Light)-30uA/FC typ;tr-30ns;tf-50ns.
33	FPN100	7	N-PL	Si								Phototrans;Pd-75mW;ID-10uA max;IL1-80mA min.
34	FSP5	7	N-PL	Si	X8							Pc-.50W max; BVCEO-100V; Photo-Sens-1.0ua/ft min.
35	HPA4202	7	N	Si	X40							BVCEO-25V; fae-120Kc; Cob-9.0pf; hFE-400 typ.
36	ME510	7	N-PE	Si	TO18							BVCEO-10V; Photosens-2.0ua/ft min. at VCE-5.0V, IB-0.0
37#	OS13	7	P	Ge	X1							Pc-15mW max; BVCEO-30V; IC-2mA max.
38#	OS15	7	N	Si	X1							Pc-30mW max;BVCEO-30Vmax;IC-200uA max; Photo-Sens-1uA/500 Lumen.
39#	OS16	7	N	Si	X1							Pc-30mW max;BVCEO-30Vmax;IC-200uA max; Photo-Sens-4uA/500 Lumen.
40#	OS17	7	N	Si	X1							Pc-30mW max;BVCEO-30Vmax;IC-200uA max; Photo-Sens-7uA/500 Lumen.
41	PD3L	7	P	Ge								Pc-.10W max; BVCEO-50V; IC-5.0mA max.
42	PD6	7	P	Ge								Pc-20mW max; BVCEO-50V; IC-5.0mA max.
43#	Ph241*	7	N	Si	TO18							IGSS(light)-5.0nA/FC;ID(light)-10uA/FC.
44#	Ph241N*	7	N	Si	TO18							IGSS(light)-5.0nA/FC;ID(light)-10uA/FC.
45#	Ph242*	7	N	Si	TO18							IGSS(light)-5.0nA/FC;ID(light)-16uA/FC.
46#	Ph242N*	7	N	Si	TO18							IGSS(light)-5.0nA/FC;ID(light)-16uA/FC.
47#	Ph243*	7	N	Si	TO18							IGSS(light)-5.0nA/FC;ID(light)-25uA/FC.
48#	Ph243N*	7	N	Si	TO18							IGSS(light)-5.0nA/FC;ID(light)-25uA/FC.
49#	Ph244*	7	N	Si	TO18							IGSS(light)-5.0nA/FC;ID(light)-40uA/FC.
50#	Ph244N*	7	N	Si	TO18							IGSS(light)-5.0nA/FC;ID(light)-40uA/FC.
51	3N25	8	PGD	Ge								Pc-25mW max; fab-200Mc; IC-2.0mA max.
52	3N35A	8	N	Si	TO12							Pd-.125W;Rsat-300 ohms;ries-20 ohms min;Coep-3.0pf
53	3N56	8	N-Δ	Si	TO5							Pc-.15W max; BVCEO-18V; IC-30mA max.
54	3N57	8	N-Δ	Si	TO5							Pc-.15W max; BVCEO-18V; IC-30mA max.
55#	3S001	8	N-D	Si								Pc-125mW;BVCEO-30V;IC-10mA; Gain 18 db ICBO-.2uA
56#	3S002	8	N-GD	Si	TO12							Pc-.125W max; fab-100Mc; BVCEO-30V; IC-10mA max.
57#	3S003	8	N-D	Si								Pc-125mW;BVCEO-30V;IC-10mA; Gain 20 db ICBO-.2uA
58#	3S004	8	N-GD S	Si	TO1							Pc-.125W max; fab-150Mc; BVCEO-30V; IC-10mA max.
59	GTA3	8	P	Si								Pc-2.5mW; fab-200Mc; BVCEO-15V; IC-2.0mA max.
60	JAN2N489	9	P-N	Si	R33							Pc-.45W max;VE-60V max;ISR-.62 max;RBBO-6.8k Ω max.
61	JAN2N490	9	P-N	Si	R33							Pc-.45W max;VE-60V max;ISR-.62 max;RBBO-6.8k Ω max.
62	JAN2N491	9	P-N	Si	R33							Pc-.45W max;VE-60V max;ISR-.68 max;RBBO-6.8k Ω max.
63	JAN2N492	9	P-N	Si	R33							Pc-.45W max;VE-60V max;ISR-.68 max;RBBO-6.8k Ω max.
64	JAN2N493	9	P-N	Si	R33							Pc-.45W max;VE-60V max;ISR-.75 max;RBBO-6.8k Ω max.
65	JAN2N494	9	P-N	Si	R33							Pc-.45W max;VE-60V max;ISR-.75 max;RBBO-6.8k Ω max.
66	2N2213	9	P	Si								Pc-.45W; Rbb-9.1 ohms max; VB2B1-40V; VB2E-60V.
67	2N2307	9	P	Si	R86							Pc-250mW;Rbb-9.1kohms max;IP-2.0A max.
68	2N3406	9	P	Si	R33							Pc-.45W;VB2E-60V max;VB2B1-70V max;VEB1(SAT)-5.0V max;IV-8mA max.
69	2N3482	9	P	Si	RO33 G							Pc-.40W;RBBO-6.8kohms max;n-.62 max;IV-4mA min;IP-2.0uA max.
70	2N3879	9	P	Si	L7a							Pt-250mW;ISR-.80 max;RBBO-9.1Kohms max;IV-4.2mA min;V0B1-4.0V min.
71	5B24	9	P	Si	TO5							P-450mW; ISR-.47 min; IP-25uA max;IV-8.0mA min;IB2 Mod.-6.8-30
72	5B25	9	P	Si	TO5							P-450mW; ISR-.47 min; IP-25uA max; IV-8.0mA min;IB2 Mod.-6.8-30
73	5C28	9	NP	Si	TO18							Pc-.30W; ISR-.75 max; Rb1b2-12K ohms; IV-8.0mA min; IP-20mA max.
74	5C29	9	NP	Si	TO18							Pc-.30W; ISR-.86 max; Rb1b2-12K ohms; IV-20mA min; IP-12mA max.
75	5C30	9	NP	Si	TO18							Pc-.30W; ISR-.75 max; Rb1b2-12K ohms; IV-20mA min; IP-12mA max.
76	5E29	9			TO18							IP-25uA max;IV-4.0mA min;IEO-12uA;N-.68 min., .82 max.
77	5G514	9			TO18							IP-25uA max;IV-8.0mA min;IEO-12uA;N-.47 min., .62 max.
78	5G515	9			TO18							IP-25uA max;IV-8.0mA min;IEO-12uA;N-.47 min., .62 max.
79	5G516	9			TO18							IP-6.0uA max;IV-8.0mA min;IEO-20uA;N-.47 min., .62 max.
80	551B	9	N	Si	TO18							Pc-.45W;ISR-.62 max;Rb1b2-6.8K ohms;IV-20mA min;IP-2.0mA max.
81	BB3	9		Si	TO5							Pt-450mW;RBB-10kΩ max;VBB-35V max;n-.62 max.
82	BB4A	9		Si	TO5							Pt-450mW;RBB-10kΩ max;VBB-35V max;n-.78 max.
83	BB4B	9		Si	TO5							Pt-450mW;RBB-10kΩ max;VBB-35V max;n-.78 max.
84	BB5	9		Si	TO5							Pt-450mW;RBB-12kΩ max;VBB-60V max;n-.75 max.
85	BB5A	9		Si	TO5							Pt-450mW;RBB-12kΩ max;VBB-60V max;n-.62 max.
86	BB5B	9		Si	TO5							Pt-450mW;RBB-12kΩ max;VBB-60V max;n-.68 max.
87	BB5C	9		Si	TO5							Pt-450mW;RBB-12kΩ max;VBB-60V max;n-.75 max.
88	D5E29	9	N	Si	R33a							Pt-.30W;RBB-9.1kΩ max;IV-25mA max;n-.82 max;IP-25uA max.
89	D5E35	9	N	Si	R33a							Pt-.30W;RBB-9.1kΩ max;IV-10mA typ;n-.82 max.
90	D5E36	9	N	Si	R33a							Pt-.30W;RBB-9.1kΩ max;IV-10mA typ;n-.82 max.
91#	TAM93	9	NPN	Si	TO5							Dual 2N930;10% hFE match;5.0mV VBE match;hFE at 10uA-50 min.
92	TIS01	9	P	Si	X20a							Pc-.30W;ISR-.75 max;RBB-9.1Kohms max;IP-5.0uA max.
93	TIS02	9	P	Si	X20a							Pc-.30W;ISR-.82 max;RBB-9.1Kohms max;IP-2.0uA max.
94	2N2181	10	P	Si	TO1							Pc-150mW;VCBO-25V max;VCEO-25V max;VEBO-25V max;Voff-4mV max.
95	2N2182	10	P	Si	TO1							Pc-150mW;VCBO-25V max;VCEO-25V max;VEBO-25V max;Voff-4mV max.
96	2N2183	10	P	Si	TO1							Pc-150mW;VCBO-15V max;VCEO-10V max;VEBO-15V max;Voff-3mV max.
97	2N2184	10	P	Si	TO1							Matched Pair of 2N2183.
98	2N2871*	10	P	Si	L17j							Voff-1.5mV max;Voff(1-2)-200uV max;hFE-15 min.
99	2N2872*	10	P	Si								

13. MISCELLANEOUS TRANSISTORS

IN ORDER OF (1) CATEGORY & (2) TYPE No.

LINE No.	TYPE No.	CATEGORY	STRUCTURE	MATERIAL	DWG. No.	LEAD CODE	DESCRIPTION
1	HA7815	10	P-A	Si	T05		Vo-1.5mV max; R _{sat} -25 ohms max; Tr-15 usec max.
2	MA3227	10	P	Si	L2		Matched; V _{off} -20mV; BV _{CEO} , BV _{EB0} , BV _{CE0} -35V
3	MA7805	10	P-A	Si	T05		Vo-3.0mV max; ΔV _o -100uV max; R _{sat} -25 ohms max; Tr-15 usec max.
4	MA7811	10	P-A	Si	T05		Vo-5mV max; ΔV _{off} -100uV max; R _{sat} -30 ohms max; Tr-15 usec max.
5	MA7816	10	P-A	Si	T05		Vo-1.5mV max; ΔV _{off} -100uV max; R _{sat} -25 ohms max; Tr-15 usec max.
6	MA7817	10	P-A	Si	T05		Vo-1.5mV max; ΔV _{off} -50uV max; R _{sat} -25 ohms max; Tr-15 usec max.
7	ME509	10	N-PE	Si	L2		BVEBO-5.0V; V _{off} -50uV at IB-150uA; IE=0.0
8	NS3000	10	N	Si	R038a		V _{off} -200uV max; R _d -50 ohms max; BV _{CEO} -10V; IEEO-50na
9	NS3001	10	N	Si	R038a		V _{off} -50uV max; R _d -50 ohms max; BV _{CEO} -10V; IEEO-50na
10	NS3039	10	N	Si	L15a		Max.(ΔV _o /T)-30uV/deg.C; R _d -50 ohms; IE1E20-2.0nA; V _o -200uV
11	NS3040	10	N	Si	L15a		Max.(ΔV _o /T)-30uV/deg.C; R _d -50 ohms; IE1E20-2.0nA; V _o -100uV
12	NS3041	10	N	Si	L15a		Max.(ΔV _o /T)-30uV/deg.C; R _d -50 ohms; IE1E20-2.0nA; V _o -50uV
13	NS3050	10	N	Si	R038a		V _{off} -100uV max; R _d -50 ohms max; BV _{CEO} -10V; IEEO-50na
14	NS3051	10	N	Si	R038a		V _{off} -100uV max; R _d -100 ohms max; BV _{CEO} -10V; IEEO-50na
15	NS3052	10	N	Si	R038a		V _{off} -200uV max; R _d -100 ohms max; BV _{CEO} -10V; IEEO-50na
16	NS3053	10	N	Si	R038a		V _{off} -200uV max; R _d -100 ohms max; BV _{CEO} -6.0V; IEEO-50na
17	NS3108	10	N	Si	L15a		P _d -100mW max; IE * IB-10mA max; BV _{EB0} -30V min.
18	NS3109	10	N	Si	L15a		P _d -100mW max; IE * IB-10mA max; BV _{EB0} -30V min.
19	NS3110	10	N	Si	L15a		P _d -100mW max; IE * IB-10mA max; BV _{EB0} -30V min.
20	NS3300	10	N-PE	Si	TO18	∅	V _{CE} off-6.0mV max; inverse hFE-3.0 min; V _{CE} off-1.0mV max.
21	NS6208	10	N	Si			V _{off} -100uV; R _d -50uA max; BV _{CECS} -12V; IE _{CS} -5.0nA max.
22	NS6209	10	N	Si			V _{off} -50uV; R _d -50uA max; BV _{CECS} -12V; IE _{CS} -5.0nA max.
23	NS6210	10	N	Si	X16		BV _{CEO} -30V min; BV _{CE0} -15V min; hFE(INV)-2.0 min; V _{off} -1.0mV max.
24	NS6211	10	N	Si	X16		BV _{CEO} -30V min; BV _{CE0} -25V min; hFE(INV)-3.0 min; V _{off} -2.0mV max.
25	NS7630	10	N	Si	L38a		P _t -200mW; BV _{EB0} -15V min; IE1E2CS-2nA max; V _{off} -200uV
26	NS8000	10	N	Si	T077		P _t -500mW; V _{off} -100uV; BV _{CEO} -12V; Freq.Range 50-1500Kc.
27	NS8003	10	N	Si	T077		P _t -500mW; V _{off} -100uV; BV _{CEO} -12V; Freq.Range 0-50Kc.
28 #	OC740	10	P	Si	R066		Available as matched pair or quad-50uV max; V _{off} 2mV max.
29 #	OC742	10	P	Si	R066		Available as matched pair or quad-50uV max; V _{off} 5mV max.
30	SAC100	10	N-PL	Si	L2		P _c -50W; BV _{CEO} -60V max; BV _{CE0} -30V max; hFE1/hFE2-90; VBE1-VBE2-0.2V
31 #	SAC40*	10	P-A	Si	T01		V _o -2mV max; I _o -0.5uA max; V _{CE} -15V; hFE-2.5 min at 3V; 1mA; 4Mc/s
32 #	SAC40A*	10	P-A	Si	T01		V _o -2mV max; I _o -0.5uA max; V _{CE} -15V; hFE-1.5 min at 3V; 1mA; 4Mc/s
33 #	SAC40B*	10	P-A	Si	T01		V _o -2mV max; I _o -0.5uA max; V _{CE} -15V; hFE-2.5 min at 3V; 1mA; 4Mc/s
34 #	SAC42*	10	P-A	Si	T01		V _o -5mV max; I _o -0.5uA max; V _{CE} -25V; hFE-2.5 min at 3V; 1mA; 4Mc/s
35 #	SAC42A*	10	P-A	Si	T01		V _o -5mV max; I _o -0.5uA max; V _{CE} -25V; hFE-2.5 min at 3V; 1mA; 4Mc/s
36 #	SAC42B*	10	P-A	Si	T01		V _o -10mV max; I _o -0.5uA max; V _{CE} -25V; hFE-2.5 min at 3V; 1mA; 4Mc/s
37 #	SAC44*	10	P-A	Si	T01		V _o -10mV; I _o -0.1uA max; V _{CE} -5V; hFE-1 min at 3V; 1mA; 4Mc/s
38 #	SAC40*	10	N-PE	Si	TO18		V _o -2mV max; V _{CE0} -25V max; V _{BE0} -6V max
39 #	SAC42*	10	N-PE	Si	TO18		V _o -5mV max; V _{CE0} -25V max; V _{BE0} -6V max
40 #	SAC50*	10	N-PE	Si	R038		ΔV _o -50uV max; r _d -125 ohms typ; Double emitter device
41 #	SAC51*	10	N-PE	Si	R038		ΔV _o -100uV max; r _d -125 ohms typ; Double emitter device
42 #	SAC52*	10	N-PE	Si	R038		ΔV _o -200uV max; r _d -125 ohms typ; Double emitter device
43 #	SSA43A*	10	P-A	Si	T01		Symmetrical hFE-7 min at VE2E1-3V; IE-1mA
44 #	SSA48*	10	P-A	Si	T01		Symmetrical hFE-7 min at VE2E1 or VE1E2-3V; IE-1mA
45 #	SSA48A	10	P-A	Si	T01		Symmetrical hFE1E2(SAT)-500mV max at IC-5mA; IB-1mA
46 #	SSA48*	10	P-A	Si	T01		Symmetrical hFE-7 min at VE2E1 or VE1E2-3V; IE-1mA
47	ST5810	10	N-PE	Si	TO72	GD∅	BV _{CEO} -25V; BV _{CE0} -18V; V _{off} -50uV; r _s -50Ω; T _{on} and T _{off} -500ns.
48	ST5811	10	N-PE	Si	TO72	GD∅	BV _{CEO} -25V; BV _{CE0} -18V; V _{off} -100uV max; r _s -100Ω; T _{on} and T _{off} -500ns.
49	ST5812	10	N-PE	Si	TO72	GD∅	BV _{CEO} -25V; BV _{CE0} -12V; V _{off} -50uV max; r _s -50Ω; T _{on} and T _{off} -500ns.
50	ST5813	10	N-PE	Si	TO72	GD∅	BV _{CEO} -25V; BV _{CE0} -12V; V _{off} -100uV max; r _s -100Ω; T _{on} and T _{off} -500ns.
51	ST5814	10	N-PE	Si	TO72	GD∅	BV _{CEO} -15V; BV _{CE0} -8.0V; V _{off} -150uV max; r _s -150Ω; T _{on} and T _{off} -500ns.
52	TW135	10	P-PE	Si	TO18	A	V _{off} -1.0mV max at IB-1.0mA; r _s -20 ohms; C _{ib} -6.0pF max.
53	UB9*	10	P	Si	TO18 D		C _{gd} -1.8pF typical at V _{ds} -5V; V _{gs} -0V; V _{gs} -1V; V _{gs} -2-1V.
54	UD1001	10	P-PE	Si	TO90		Dual Emit Fr; P _t -200mW(both sides); BV _{EB0} -30V; BV _{EB0} -30V
55	2N626	11	N	Ge-Si	L29a		hFE(pulsed)-20 min. at IC-100mA; f _t (pulsed)-1.0GHz min.
56	2N676	11	P	Ge-Si	L35		P _c -10W max; BV _{CEO} -30V; IC-3.0A max; hFE-18000 min; V _{CE} -5.0V; IC-1.0A.
57	2N3230	11	NA	Si	L29a		P _c -10W max; BV _{CEO} -30V; IC-3.0A max; hFE-15000; V _{CE} -5.0V; IC-1.0A.
58	2N3231	11	NA	Si	L35		P _d -25W; V _{CE} -100V; IC-7A max; hFE-1000 min. at IC-5A; T _{on} -350ns max.
59	4JD12X010	11	N-PL	Si	L27		Contains 2-2N1613 transistors; P _t -300mW/Transistor.
60	4JD12X011	11	N-PL	Si	L27		Contains 3-2N1613 type transistors; Darlington input and output.
61	4JD12X012	11	N-PL	Si	L28		4-2N1613 type transistor; Darl. Diff. Amp.; hFE1/2-.80 to 1.25
62	4JD12X014	11	N-PL	Si	L26		Contains 3-2N1613 typ transistors; Darlington input and output.
63	4JD12X132	11	N-PE	Si	L4		Darlington Amp; BV _{CEO} -80V; BV _{CE0} -60V; BV _{EB0} -15V; P _t -50W
64	22MP65	11	P	Ge-Si	L5		BV _{CEO} -10V; BV _{CE0} -4.0V; IC-50A; fab-40 Mc.
65	22MP55	11	P	Ge-Si	L5		BV _{CEO} -20V; BV _{CE0} -5.0V; IC-50A; fab-10 Mc.
66 #	A25Q	11	N-PE	Si	L5		P _c -600mW; V _{CE0} -30V max; hFE-500 min at 5V; 1mA
67	A431*	11	N-PE	Si	L29a		hFE(pulsed)-20 min. at IC-100mA; f _t (pulsed)-1.0GHz min.
68	ARA46P	11	P	Si	L2		P _c -40W max; BV _{CEO} -40V; IC-3.0A max; hFE-10000 Typ; V _{CE} -40V; IC-3.0A.
69	ASA31	11	N-PL	Si	TO18		2N1613 in isolated TO18 Package; BV _{CEO} -75V.
70	ASA51	11	N-PL	Si	T05		2N1889 in isolated T05 Package; BV _{CEO} -100V.
71	ASA1003	11	N-PL	Si	TO18		P _c -50W max; BV _{CEO} -60V; hFE-5000 min/IC-10 mA; ICBO-10nA max.
72	ASA1004	11	N-PL	Si	TO18		P _c -50W max; BV _{CEO} -60V; hFE-20,000 min/IC-10 mA; ICBO-10nA max.
73 #	BFY21	11	N-PL	Si	L2		P _c -70W max; BV _{CEO} -40V; IC-200mA; hFE-64; f _t -200Mc/s min.
74	CA3018	11	N	Si	L60		BV _{CEO} -15V; BV _{CE0} -20V; hFE-70 at IC-1mA; f _t -400MHz.
75	CA3036	11	N	Si	L65		Darlington Array; P _t -300mW; BV _{CEO} -30V max; hFE-82 typ at IC-1mA.
76	D16P3	11	N	Si	L3e		Darlington Amp. hFE-2.0k min; P _t -320mW; Z _{in} -650k; BV _{CE0} -20V.
77	D16P4	11	N	Si	L3e		Darlington Amp; hFE-7.0k-15k typ; P _t -320mW; Z _{in} -650k; BV _{CE0} -20V.
78	EM500	11	N	Ge-Si	L3		P _c -10W max; BV _{CEO} -30V; IC-3.0A max; hFE-26000 min; V _{CE} -5.0V; IC-1.0A.
79	EM600	11	P	Ge-Si	L3		P _c -10W max; BV _{CEO} -30V; IC-3.0A max; hFE-26000 min; V _{CE} -5.0V; IC-1.0A.
80	FSP22	11	N-PL	Si	L3		P _c -50W max; BV _{CEO} -100V; hFE-1600 min/IC-10mA; ICBO-.005ua; BV _{CE0} -60V
81	FSP598	11	N	Si	TO18		BV _{CEO} -25V; BV _{CE0} -4.0V; ICBO-.60uA; hFE-20 min.
82	MA3228	11	P	Si	L2		Diff. Ampl. Matched; ΔhFE-20%; ΔV _{BE} -10mV; BV _{CE0} -90V
83	MA3229	11	P	Si	L2		Diff. Ampl. Matched; ΔhFE-20%; ΔV _{BE} -15mV; BV _{CE0} -60V
84	MA3230	11	P	Si	L2		Diff. Ampl. Matched; ΔhFE-40%; ΔV _{BE} -20mV; BV _{CE0} -35V
85	MA3231	11	P	Si	L2		Darlington Ampl.; hFE-100-1000; BV _{CE0} -90V.
86	MA3232	11	P	Si	L2		Darlington Ampl.; hFE-100-1000; BV _{CE0} -35V.
87	MA3233	11	P	Si	L2		Darlington Ampl.; hFE-1000-5000; BV _{CE0} -90V.
88	MA3234	11	P	Si	L2		Darlington Ampl.; hFE-1000-5000; BV _{CE0} -35V.
89	NS7100	11	N-PL	Si	L4a		BV _{CEO} -80V; BV _{CE0} -60V; BV _{EB0} -15V; hFE-2000 min.
90	RM3001	11	N-PL	Si	TO18∅		Darl. Ampl; P _c -1.0W max; BV _{CEO} -80V; hFE-900 min. at IC-1.0mA
91	RM3002	11	N-PL	Si	TO18∅	∅	Photo Darl. Ampl; P _c -1.8W max; BV _{CEO} -60V; Sens-25ua/IC
92	RM3010	11	N-PL	Si	TO18∅		Darl. Ampl; P _c -1.0W max; BV _{CEO} -80V; hFE-2000 min. at IC-30mA
93	SA102	11	N-PL	Si	TO18		P _c -50W; BV _{CEO} -60V max; BV _{CE0} -30V max; hFE-5000; V _{CE} -1.0V max.
94	SA107	11	N-PL	Si	TO18		P _c -50W; BV _{CEO} -60V max; BV _{CE0} -30V max; hFE-20,000; V _{CE} -1.0V max.
95	SP8411	11	N-PL	Si	L8		P _c -30W; BV _{CEO} -45V; hFE-60 min. at IC-10uA; V _{CE} -5.0V.
96	SP8411A	11	N-PL	Si	L8		P _c -30W; BV _{CEO} -60V; hFE-60 min. at IC-10uA; V _{CE} -5.0V.
97	SP8412	11	N-PL	Si	L8		P _c -30W; BV _{CEO} -45V; hFE-150 min. at IC-10uA; V _{CE} -5.0V.
98	SP8412A	11	N-PL	Si	L8		P _c -30W; BV _{CEO} -60V; hFE-150 min. at IC-10uA; V _{CE} -5.0V.
99	SP8413	11	N-PL	Si	L8		P _c -30W; BV _{CEO} -45V; hFE-60 min. at IC-10uA; V _{CE} -5.0V.
100	SP8413A	11	N-PL	Si	L8		P _c -30W; BV _{CEO} -60V; hFE-60 min. at IC-10uA; V _{CE} -5.0V.
101	SP8414	11	N-PL	Si	L8		P _c -30W; BV _{CEO} -45V; hFE-150 min. at IC-10uA; V _{CE} -5.0V.
102	SP8414A	11	N-PL	Si	L8		P _c -30W; BV _{CEO} -60V; hFE-150 min. at IC-10uA; V _{CE} -5.0V.
103	SP8588	11	N-PL	Si	L8		P _c -30W; BV _{CEO} -45V; hFE-60 min. at IC-10uA; V _{CE} -5.0V.
104	SP8588A	11	N-PL	Si	L8		P _c -30W; BV _{CEO} -45V; hFE-150 min. at IC-10uA; V _{CE} -5.0V.
105	SST610	11	N-DM	Si	L3a		Darl. Ampl; P _c -50W max; BV _{CEO} -60V; IC-50A max; hFE-12000; IC-50mA
106 #	TA-D93	11	NPN	Ge	T05		Darlington Compound Amp; P _c -36W; BV _{CEO} -45V; hFE min-5000 at 1.0mA.
107 #	TAB101	11	NPN	Ge	L84		P _t -1W; V _{BE} -5mV; hFE-20 min; f _t -100MHz.

13. MISCELLANEOUS TRANSISTORS

IN ORDER OF (1) CATEGORY & (2) TYPE No.

LINE No.	2] TYPE No.	1] CATEGORY	STRUCTURE	M A T	DWG. No.	L C E A D E	DESCRIPTION
1	2N5276*	13	NΔ	Si	TO18	A∅	Post Rad. for ICBO-20uA max;hFE-20 min;VCE(sat)-1V max;all pulsed.
2	BR100A*	13	N	Si	R50	A∅	Max.Rad.Level-500T nvt;Post Rad. hFE-25;ICBO-1.0mA.
3	BR100C*	13	N	Si	TO59	A	Max.Rad.Level-500T nvt;Post Rad. hFE-25;ICBO-1.0mA.
4	BR100E*	13	N	Si	MT50a	A∅	Max.Rad.Level-500T nvt;Post Rad. hFE-25;ICBO-1.0mA.
5	BR100F*	13	N	Si	MT50a	A	Max.Rad.Level-500T nvt;Post Rad. hFE-25;ICBO-1.0mA.
6	BR101A*	13	N	Si	R50	A∅	Max.Rad.Level-500T nvt;Post Rad. hFE-15;ICBO-1.0mA.
7	BR101C*	13	N	Si	TO59	A	Max.Rad.Level-500T nvt;Post Rad. hFE-15;ICBO-1.0mA.
8	BR101E*	13	N	Si	MT50a	A∅	Max.Rad.Level-500T nvt;Post Rad. hFE-15;ICBO-1.0mA.
9	BR101F*	13	N	Si	MT50a	A	Max.Rad.Level-500T nvt;Post Rad. hFE-15;ICBO-1.0mA.
10	BR200A*	13	N	Si	MT50a	A∅	Post Radiation of 100T nvt;hFE-15 min;at VCE-5.0V.
11	BR200B*	13	N	Si	MT50a	A∅	Post Radiation of 100T nvt;hFE-15 min;at VCE-5.0V.
12	BR201A*	13	N	Si	MT50a	A	Post Radiation of 100T nvt;hFE-10 min;at VCE-5.0V.
13	BR201B*	13	N	Si	MT50a	A	Post Radiation of 100T nvt;hFE-10 min;at VCE-5.0V.
14	NS9808*	13	N-PE	Si	TO60		After irradiation of 100T n/cm.sq.;ICBO at 15V-30uA;hFE-10 min.
15	NS9809*	13	N-PE	Si	TO61		After irradiation of 100T n/cm.sq.;ICBO at 20V-250uA;hFE-8.0 min.
16	NS9809A*	13	N-PE	Si	TO61		Post Radiation of 300T NVT;ICBO at 20V-250uA;hFE-8.0 typ.
17	NS9726*	13	N-PE	Si	RC38w		After irradiation: ICBO at 15V-.10uA;Ft-600Mc;hFE-20 min.
18	RT10	13	N	Si	TO18		Max Rad Level 1000T nvt;Post Rad Vp-10Vmax;IDSS-30%max;gfs-25%.
19	RT20	13	N-MOS	Si	TO18		Max Rad Level 1000T nvt;Post Rad Vp-13Vmax;ΔIDSS-60%max.
20	V120RH*	13	NPL	Si	ZA15		All parameters measured after 10kT nvt Irradiation

MANUFACTURERS AND THEIR ADDRESSES

Manufacturers in order of code letters

SPACE-SAVERS UTILIZED IN THIS MANUFACTURER LISTING

(*) — Manufacturer not a current commercial producer of transistors — address is that last recorded in our files. Company may or may not be active at this address.

see (code) — Indicates one or more of the following changes have occurred since original letter code was used: (1) Change of code; (2) Change of manufacturer name; (3) Purchase by or combination with another manufacturer.

- (*) **ADV** — **Advanced Research Assoc.**,
Box 68, Kensington, Md. 20795
- (*) **AEG** — **Allgemeine Elektricitaets - Gesellschaft**
— See TFKG
- AEIE** — **Assoc. Elec. Industries** — see AEIL
- (*) **AEIL** — **AEI-Thorn Semiconductors Ltd.**,
Carholm Road, Lincoln, England
- AKER** — **A/S Akers Electronics**, Forskningsvsn, 1,
Horten, Norway
- (*) **AME** — **Advanced Micro-Electronics**,
99 Bald Hill Road, Cranston, R. I. 02910
- (*) **AMF** — **American Machine & Foundry, Semicon. Dept.**,
P. O. Box 128, Vandalia, Ohio 45377
- AML** — **Amelco Semiconductor**,
P. O. Box 1030, Mountain View, Calif. 94040
- AMP** — **Amperex** — see APX
- ANOA** — **Anodeon Semiconductor Div.**
Hamilton St., Huntingdale, Victoria, Australia
- APX** — **Amperex Electronic Corp., Semicon. Div.**,
Slatersville, R. I. 02876
- ASC** — **American Semiconductor Corp.**,
4 North Hickory Ave., Arlington Heights,
Illinois 60004
- ASMB** — **Assoc. Semicon. Mfrs.** — see MULB
- ATEI** — **ATES**, via Tempesta 2, Milan, Italy
- ATLB** — **Associated Transistor Ltd.** — See MULB
- BACE** — **Bendix** — see BEN
- BELI** — **Bharat Electronics Limited**,
Jalahalli P. O., Bangalore 13, South India
- BEM** — **Bogue** — see BOG
- BEN** — **Bendix Semiconductor Division**
South Street, Holmdel, N. J. 07733
- BNT** — **Burns & Towne Inc.**,
18-36 Granite Street, Haverhill, Mass. 01830
- (*) **BOG** — **Bogue Electric Mfg. Co.**,
100 Pennsylvania Ave., Paterson, N. J. 07503
- BRDB** — **G. & E. Bradley** — see LUCB
- BRUB** — **Brush Clevite** — see STCB
- BTHB** — **British Thomson-Houston** — see AEIL
- (*) **BUR** — **Burroughs Electronic Components Div.**,
Mt. Bethel Road, Plainfield, New Jersey 07060
- (*) **CBS** — **CBS Electronics**,
900 Chelmsford Street, Lowell, Mass. 01851
- CDC** — **Continental Device Corp.**,
12515 Chadron Avenue, Hawthorne,
California 90250
- CDLF** — **Compagnie Industrielle Francaise Des Tubes
Electroniques**,
50 Rue J. P. Timbaud, Courbevoie 92, France
- (*) **CGEF** — **COMPELEC**, 13 Rue d'Enghien, Paris 10, France
- CLE** — **Clevite** — see ITT
- CNS** — **Continental Semi-Conductor Inc.**,
59 Central Avenue, East Farmingdale,
New York 11735
- (*) **CPC** — **C. P. Clare Transistor Corp.**,
260 Glen Head Road, Glen Head,
Long Island, New York 11545
- CRY** — **Crystalonics**,
147 Sherman St., Cambridge, Mass. 02140
- CSC** — **Clark Semicon.** — see NSC
- CSF** — **American Radio Co., Inc.**
445 Park Avenue, New York, N. Y. 10022
- DEL** — **Delco Radio Div.**,
G. M. C., Kokomo, Indiana 46901
- DES** — **Delta Semiconductors**,
225 Pularino Ave., Costa Mesa, Calif. 92626
- DETM** — **Delsa-Toshiba S. A.**,
Calzada Aurora No. 303, Cuautitlan,
Edo de Mexico
- DIC** — **Dickson Electronics Corp.**,
310 South Wells Fargo Avenue, Scottsdale,
Arizona 85252
- (*) **EBAS** — **Ebauches S. A.**,
Faubourg Hopital 1, Neuchatel, Switzerland
- ECD** — **United Aircraft Corp.,
Electronic Components Div.**,
Trevose, Penna. 19047
- (*) **EEVB** — **English Electric Valve Co.**,
Waterhouse Lane, Chelmsford, England
- (*) **ELBR** — **Electronica Nacional Braileira**,
525 Rua Thiers, Sao Paulo, Brazil
- (*) **ELE** — **Electromation Co.**,
4254 Glencoe Ave., Venice, Calif. 90291
- ETC** — **Electronic Transistors Corp.**,
153-13 Northern Blvd., Flushing, N. Y. 11354
- FCAJ** — **Fujitsu Ltd.**, 1015 Kamikodanaka,
Kawasaki City, Kanagawa, Japan
- FERB** — **Ferranti Ltd.**,
Gem Mill, Chadderton, Oldham, Lancs., England
- FSC** — **Fairchild Semiconductor**,
313 Fairchild Dr., Mountain View, Calif. 94040
- (*) **FTC** — **Fanon Transistor Corp.**,
439 Frelinghuysen Ave., Newark, N. J. 07114
- FTHF** — **French Thomson-Houston** — see SESC
- GECB** — **General Electric Ltd.** — see MULB
- (*) **GEM** — **Great Eastern Mfg. Co.**,
163 Remsen Ave., Brooklyn, N. Y. 11212
- GESY** — **General Electric Company**,
Semiconductor Products Dept.,
Electronic Comp. Div.,
Northern Lights, Syracuse, N. Y. 13201
- GIC** — **General Instrument Corporation**,
P. O. Box 600, Hicksville, New York 11802
- GME** — **General Micro-Electronics** — See PHIL
- GSI** — **General Sensors**,
P. O. Box 231, Athens, Texas 75751
- GTC** — **General Transistor** — see GIC
- HAC** — **Hughes Aircraft** — see HUG
- HITJ** — **Hitachi, Ltd.**, Nippon Building No. 8, 2-chome,
Ohtemachi, Chiyoda-ku, Tokyo, Japan
- (*) **HIVB** — **Hivac Ltd.**, Stonefield Way, Victoria Road
South Ruislip, England
- HON** — **Honeywell Inc.** — See SOD
- HPA** — **HP Associates**,
620 Page Mill Road, Palo Alto, Calif. 94304

Manufacturers continued

- HSC** — **Helios Semiconductor Company**,
500 Dyer Road, Santa Clara, California 92707
- (*) **HSD** — **Hoffman Semiconductor**,
1001 Arden Drive, El Monte, Calif. 91731
- (*) **HSDC** — **Hoffman Semiconductor** — See HSD
- (*) **HUG** — **Hughes Aircraft Co.**,
P. O. Box 278 Newport Beach, Calif. 92663
- HUGS** — **Hughes International (U.K.) Ltd.**,
Glenrothes, Fife, Scotland
- IDC** — **International Diode Corp.**,
90 Forrest Street, Jersey City, N. J. 07304
- INRC** — **International Rectifier Corporation**,
233 Kansas Street, El Segundo, Calif. 90245
- INTG** — **Intermetall Halbleiterwerk der**,
Deutsche ITT - Ind. GmbH, Germany
- ITC** — **Industro Transistor Corp.**,
35-10 36th Ave., Long Island City, N. Y. 11106
- ITT** — **ITT Semiconductors**,
3301 Electronics Way, West Palm Beach,
Florida 33047
- KMC** — **KMC Semiconductor Corp.**,
Parker Road, R. D. 2, Long Valley, N. J. 07853
- (*) **KOKJ** — **Kobe Kogyo Corp.**, Hyogo-ku, Kobe, Japan
- KSC** — **KSC Semiconductor Corp.**,
KSC Way (Katrina Road), Chelmsford,
Massachusetts 01824
- (*) **LCTF** — **Laboratoire Central de Telecommunications**,
46 Avenue de Breteuil, Paris 7e, France
- LTF** — **Lignes Telegraphiques & Telephoniques**,
Conflans-Sainte-Honorine (Seine Et Oise) France
- LUCB** — **Joseph Lucas (ELEC.), Ltd.**
Mere Green Works, Mere Green Road
Four Oaks, Sutton Coldfield
Warwickshire, England
- (*) **MAL** — **P. R. Mallory & Co.**, Indianapolis, Ind. 62832
- MATJ** — **Matsushita Electronics Corp.**,
Saiwaicho 1-1 Takatsuki, Osaka, Japan
- (*) **MIC** — **Microwave Associates**,
Burlington, Mass. 01803
- MIFI** — **Microfarad** — see MISI
- MIN** — **Honeywell** — see HON
- MINA** — **Miniwatt Electronics Div.**,
Philips Electrical Pty. Ltd.,
20 Herbert St., Artarmon, N. S. W., Australia
- MISI** — **MISTRAL**, via Carnevali 113, Milan, Italy
- MITJ** — **Mitsubishi Electric Corp.**, 2-12 Marunouchi,
Chiyoda-ku, Tokyo, Japan
- MOTA** — **Motorola Semiconductor Products**,
5005 E. McDowell Road, Phoenix, Ariz. 85005
- (*) **MSC** — **MicroSemiconductor Corp.**,
11250 Playa Court, Culver City, Calif. 90230
- MST** — **M. S. Transistor Corp.**, 80-02 51st Avenue,
Elmhurst, New York 11373
- MULB** — **Mullard Ltd.**, Mullard House,
Torrington Place, London W.C. 1, England
- (*) **NAC** — **National Aircraft Corp.**,
3411 Tulare Ave., Burbank, Calif. 91502
- NAS** — **National Semicon.** — see NSC
- NECJ** — **Nippon Electric Co.**,
1753 Shimonumabe, Kawasaki City, Japan
- NIPJ** — **Nippon Electric Co.**, — See NECJ
- (*) **NORC** — **Northern Electric Co.**, Advance Devices Centre,
75 Moodie Drive, Ottawa, Ontario, Canada
- NPC** — **Nucleonic Products Co.**,
3133 E. 12th St., Los Angeles, Calif. 90023
- NSC** — **National Semiconductor Corporation**,
2975 San Ysidro Way, Santa Clara,
California 95051
- NTLB** — **Newmarket Transistors Ltd.**,
Exning Road, New Market, England
- PHIC** — **Philips Electron Devices Ltd.**, 116 Vanderhoof
Ave., Toronto, Ontario, Canada
- PHIL** — **Philco Corp.**, Micro-Electronics Div.,
2920 San Ysidro Way, Santa Clara,
California 95051
- PHIN** — **Philips Gloeilampenfabrieken**,
Eindhoven, Netherlands
- PIR** — **Pirgo Electronics, Inc.**,
P. O. Box 397, Farmingdale, Long Island,
New York 11735
- PPC** — **Power Physics Corporation**,
Industrial Way West, P. O. Box 626,
Eatontown, New Jersey 07724
- PSI** — **TRW Semicon.** — see TRW
- QDC** — **Qualidyne Corporation**,
3699 Tahoe Way, Santa Clara, Calif. 95051
- RADF** — **La Radiotechnique**, Div. Tubes Electroniques,
130 Avenue Ledru Rolin, Paris 11e, France
- (*) **RAU** — **The Rauland Corp.**,
4245 N. Knox Ave., Chicago, Ill. 60630
- RAYI** — **Raytheon-Elsi**,
via Villagrazia 79, Palermo, Italy
- RAYN** — **Raytheon Semiconductor Div.**,
350 Ellis St., Mountain View, Calif. 94040
- RCA** — **R. C. A. Electronic Components & Devices**,
Somerville, New Jersey 08876
- (*) **RCAC** — **RCA Victor Co. Ltd.**, 1001 Lenoir St.,
Montreal, Quebec, Canada
- RCAS** — **R. C. A.** — see RCA
- RHE** — **Rheem Semicon.** — see RAYN
- ROSG** — **Dr. Ing. Rudolph Rost**,
Ubbenstrasse 21, Hanover 1, Germany
- SAKJ** — **Sanken Electric Co.**, 1-22-8 Nishi-Ikebukuro,
Toshima-ku, Tokyo, Japan
- SANJ** — **Tokyo Sanyo** — see TSAJ
- SEC** — **Seco Electronics Division** — See SIL
- SELB** — **Semiconductor Division, Plessey Company, Ltd.**,
Cheney Manor, Swindon, Wiltshire, England
- (*) **SELG** — **Standard Elektrik Lorenz**, Gerschaeftsbereich
Bauemente, 66 Platenstrasse, 85 Nuremberg,
Germany
- (*) **SEM** — **Semi-Elements, Inc.**
Saxonburg Blvd., Saxonburg, Penna. 16056
- SES** — **Semitronics Corporation**,
265 Canal Street, New York, N. Y. 10013
- SESC** — **SESCO**, 41 Rue de l'Amiral-Mouchez,
Paris 13e, France
- SGSI** — **Societa Generale Semiconduttori SpA SGS**,
Via C. Olivetti 1, Agrate, Milano, Italy
- SLA** — **Slater Electric Inc.**, Semiconductor Division,
45 Sea Cliff Ave., Glen Cove, New York 11542
- SLCB** — **Semitron Limited**,
Cricklade, Wiltshire, England
- SHEJ** — **Shindengen Electric Mfg. Co.**, 4, 2-Chome
Ohtemachi, Chiyoda-ku, Toyko, Japan
- SHWG** — **Siemens Aktiengesellschaft**, Balanstrasse 73,
8000 Munich 8, Germany
- SIHG** — **Siemens & Halske Aktiengesellschaft**
— See SHWG
- SIL** — **Silicon Transistor Corp.**,
East Gate Blvd., Garden City, N. Y. 11532
- SIX** — **Siliconix**,
1140 W. Evelyn Ave., Sunnyvale, Calif. 94086

Manufacturers continued

- SOA** — **Semicoa**, 940 South Ajax Avenue,
City of Industry, California 91744
- SOD** — **Solitron Devices, Inc.**,
1177 Blue Heron Blvd., Riviera Beach,
Florida 33404
- (*) **SOI** — **Semi-Onics**, 4 Broadway, Lowell, Mass. 01854
- SOIF** — **Soc. Industriel des Liaisons Electriques**,
64 bis Rue de Monceau, Paris 8e, France
- SONY** — **Sony Corp.**, 14 Asahi-Cho-4, Atsugi-Shi,
Kanagawa-Ken, Japan
- SPC** — **Solid Power Corporation**,
440 Eastern Parkway, Farmingdale,
New York 11735
- SPR** — **Sprague Electric Co.**, North Adams, Mass. 01247
- SSD** — **Sperry Semiconductor** — See SOD
- SSE** — **Solid State Electronics Co.**,
15321 Rayen St., Sepulveda, Calif. 91343
- SSI** — **Solid State Devices Inc.**,
12741 Los Nietos Road, Santa Fe, Calif. 90670
- SSP** — **Solid State Products**,
1 Pingree St., Salem, Mass. 01970
- SSS** — **Solid State Scientific Corporation**,
Montgomeryville Industrial Center,
Montgomeryville, Pennsylvania 18936
- STAG** — **Tekade** — see TKAD
- (*) **STCA** — **Standard Tels. & Cables Pty. Ltd.**,
252 Botany Rd. Alex., Sydney, Australia
- STCB** — **S.T.C. Semiconductors Ltd.**,
Footscray, Sidcup, Kent, England
- STL** — **Stow Laboratories, Inc.**,
Barton Road, Stow, Massachusetts 01775
- (*) **SYL** — **Sylvania Semiconductor**,
100 Sylvan Road, Woburn, Mass. 01801
- SUH** — **Siemens Aktiengesellschaft** — See SHWG
- TADI** — **Tadiran**,
3, Derech Hashalom, Tel-Aviv, Israel
- TAGS** — **Transistor AG**, Hohlstrasse 610,
Zurich 9, Switzerland
- TEC** — **Transitron Electronic Corp.**,
168 Albion St., Wakefield, Mass. 01880
- TEK** — **Trans-Tek Manufacturing Company**
4405 South Clinton Avenue, South Plainfield,
New Jersey 07080
- TFKG** — **Allgemeine Elektricitats-Gesellschaft**
AEG Telefunken,
71 Heilbronn (Neckar), Postfach 1042,
West Germany
- THOB** — **Thorn-AEI** — See AEIL
- TII** — **Texas Instruments Inc., Components Group**,
P. O. Box 5012, Dallas, Texas 75222
- TIIB** — **Texas Instruments Ltd.**,
Manton Lane, Bedford, England
- TIIF** — **Texas Instruments France**,
Villeneuve-Loubet (A.M.), France
- (*) **TKAD** — **Tekade**,
Schliessfach 870, Nurnberg 2, Germany
- TOSJ** — **Tokyo Shibaura Electric Co.**,
1 Komukaitoshiba Cho, Kawasaki, Japan
- TRW** — **TRW Semiconductors**,
14520 Aviation Blvd., Lawndale, Calif. 90260
- TSAJ** — **Tokyo Sanyo Electric Co.**,
Oizumimachi, Orangun Gumma, Japan
- TSE** — **Tung-Sol** — see TUNE
- TTKJ** — **Tokyo Tsushin** — see SONY
- (*) **TUNE** — **Tung-Sol Electric**,
545 N. Arlington Ave., E. Orange, N. J. 07017
- (*) **TYC** — **Tyco Semicon. Corp.**,
Bear Hill, Waltham, Mass. 02154
- UCC** — **Union Carbide Linde Div.**,
365 Middlefield Road, Mountain View,
California 94040
- UEHK** — **Micro Electronics Ltd.**, Kwun Tong, Hong Kong
- (*) **UST** — **U. S. Transistor Corp.**,
149 Eileen Way, Syosset, N. Y. 11791
- VALG** — **VALVO**, Hamburg 1, Germany
- (*) **VANN** — **Van Der Heem NV**,
Maanweg 156, The Hague, Netherlands
- VSS** — **Vector Solid State Labs.** — See ECD
- (*) **WEC** — **Western Electric Co.**,
Marion & Vine Sts., Laureldale, Pa. 19605
- WESY** — **Westinghouse Semiconductor Dept.**,
Youngwood, Pa. 15697
- WTC** — **Western Transistor Corp.**,
11518 Federal Drive, El Monte, Calif. 91731
- (*) **YECJ** — **Yaou Electric Co.**,
1116 Suenaga, Kawasaki, Kanagawa, Japan

NOTES

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Low-Power Silicon NPN
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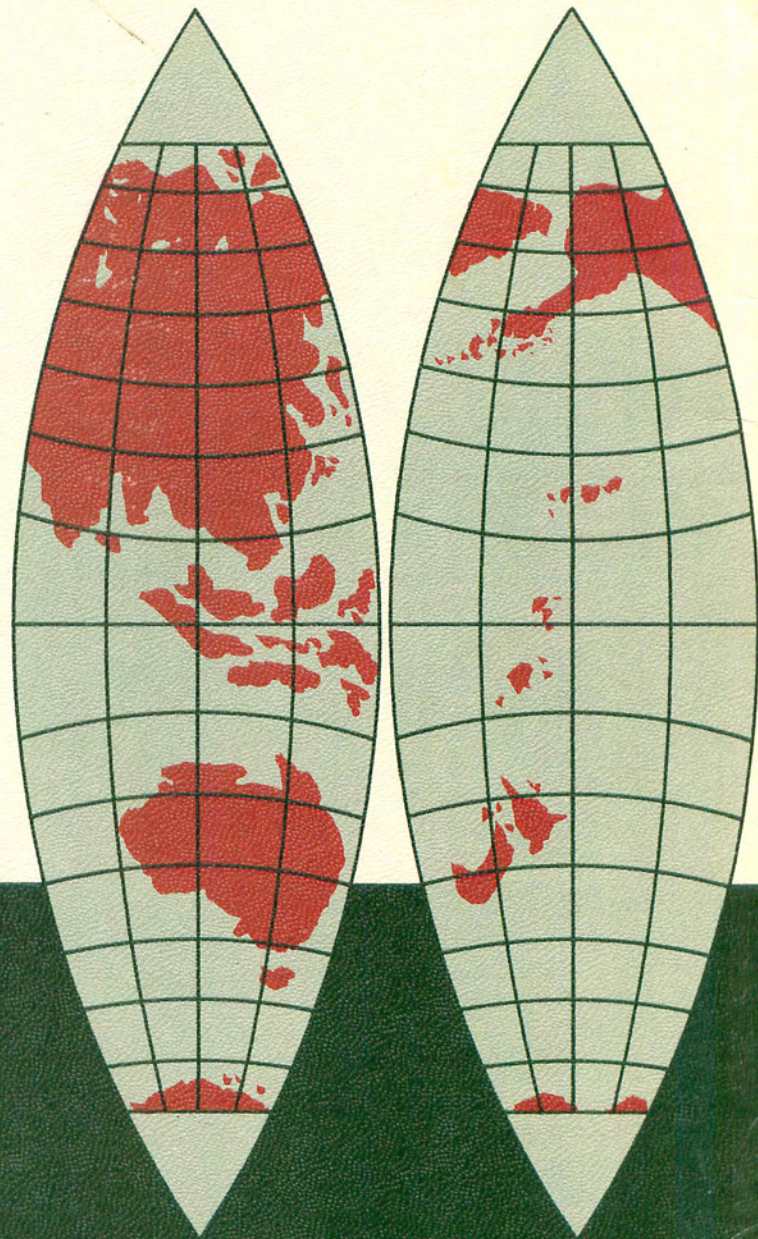
Compiled, Organized & Published by:

D.A.T.A. inc.

32 Lincoln Avenue, Orange, N. J. 07050

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