



FAIRCHILD
CONDENSED CATALOG

FAIRCHILD DIFFUSED SILICON TRANSISTORS AND DIODES

Providing an unmatched combination of speed, power and reliability in computer switching and in RF and video amplifiers and oscillators



Today's widespread preference for diffused silicon transistors in high-performance, high-reliability applications has resulted from their unique combination of characteristics: very high gain-bandwidth product, large power dissipation, low saturation resistance, uniformity of parameters and outstanding reliability (300° C stabilization is standard Fairchild production practice). Their high performance applies over a very wide range of current, frequency and temperature, hence one Fairchild type can replace numerous earlier, more restricted types. Fairchild pioneered large-scale production of diffused silicon transistors and today offers the broadest line.

TRANSISTORS—Fairchild Diffused Silicon Types

Types	Description	JEDEC Outline	f _t Typical	P _c @ 25°C Case Temp.	h _{FE} (Min.) (Max.)	V _{CER}	V _{CBO}	V _{BE SAT} (Max.)	V _{CE SAT} (Max.)	I _{CBO} [†] @ 25°C (Max.)	
2N696 & 2N697	General purpose types for switching, RF and DC applications over a wide current range	TO-5	90 mc 120 mc	2 watts 2 watts	20 40	60 120	40 V 40 V	60 V 60 V	1.3 V 1.3 V	1.5 V 1.5 V	1.0 μA 1.0 μA
2N698 & 2N699	High voltage types particularly suited to video amplifiers and RF oscillators	TO-5	90 mc 120 mc	2 watts 2 watts	20 40	— 120	80 V 80 V	120 V 120 V	1.3 V 1.3 V	5 V 5 V	2.0 μA 2.0 μA
2N706	Logic transistor for very high speed switching in low current saturated circuits	TO-18	400 mc	1 watt	20	—	20 V	25 V	0.9 V	0.6 V	0.5 μA
2N707	VHF oscillator type	TO-18	45% @ 100 mc*	1 watt	9	—	28 V	56 V	0.9 V	0.6 V	5 μA
2N1131 & 2N1132	PNP complements to the 2N696 and 2N697 suitable for identical uses in opposite polarity	TO-5	50 mc 60 mc	2 watts 2 watts	15 30	45 90	-30 V -30 V	-40 V -40 V	-1.5 V -1.5 V	-1.5 V -1.5 V	1.0 μA 1.0 μA
2N1252 & 2N1253	Low storage types optimized for high current saturated switching circuitry	TO-5	80 mc 100 mc	2 watts 2 watts	15 30	45 90	20 V 20 V	30 V 30 V	1.3 V 1.3 V	1.5 V 1.5 V	10 μA 10 μA
2N717 & 2N718	General purpose types for switching, RF and DC applications over a wide current range	TO-18	90 mc 120 mc	1.5 watts 1.5 watts	20 40	— 120	40 V 40 V	60 V 60 V	1.3 V 1.3 V	1.5 V 1.5 V	1.0 μA 1.0 μA
2N1613	A UNIVERSAL TYPE: Fast switching (logic and high current) Amplifiers (low level, low noise, wideband, VHF power)	TO-5	100 mc	3 watts	30	—	40 V	75 V	1.3 V	1.5 V	25 mA ^{††}

*Oscillator efficiency †I_{CBO} measured at 50% of V_{CBO}. ††I_{CBO} measured at 60 V.

DIODES—Fairchild Diffused Silicon Types

Type	Description	Reverse recovery time (Max.)	Maximum power dissipation (Max.)	Capacitance at 0 volts bias (Max.)	Breakdown voltage (Min.)	Reverse current (Max.)	Forward voltage drop at I _F =10 ma (Max.)
FD-100	Ultra-fast computer diode	4 mμs	200 mW	2 μμf	75 V	.100 μA	1 V

A number of additional high performance types are scheduled for announcement subsequent to date of this printing.

Specification sheets available with comprehensive data on all types shown and on additional types announced subsequent to this printing.

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