



SVETLANA TECHNICAL DATA

572B

High-Mu Power Triode

The Svetlana™ 572B is a high-mu power triode intended for use in class AB, class B and class C RF and Audio amplifiers. The Svetlana 572B features a massive graphite anode for high peak overload capability and a high average plate dissipation of 160 Watts. The Svetlana 572B also features a low loss ceramic base and a bonded-ceramic plate cap thermal insulator for high power RF transmitting tube capability.

The Svetlana 572B has a superior getter system based on titanium adhered to the external surface of the graphite anode. The titanium coating covers the entire anode area extended by the inherent micro surface roughness of graphite. The Svetlana 572B envelope is fabricated from hard glass intended specifically for the high-temperature operation of transmitting tubes.

The internal tube parts are supported by low loss ceramic insulators for high-temperature operation and high voltage hold-off. The internal structure is well supported and is aligned with respect to the base pins to avoid internal shorts in equipment designed for horizontal tube mounting.

The Svetlana 572B may be used as a direct drop-in replacement in equipment designed for the 811A, T160L or 572B.

Characteristics

Electrical

Filament:	Thoriated-tungsten
Voltage (AC or DC)	6.3 V \pm 0.3V
Current	4 A
Amplification factor (average)	170
Direct interelectrode capacitances:	
Grid to plate	6.0pF
Grid to filament	5.9 pF
Plate to filament	0.8 pF
Maximum frequency for full ratings	30 MHz

Mechanical

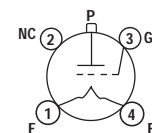
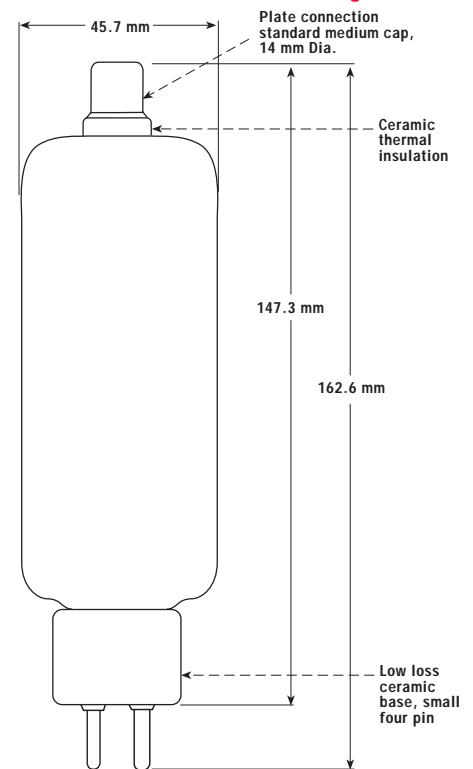
Cooling	Radiation and forced air
Base	Ceramic, standard small four pin
Plate cap	Standard medium cap 14 mm dia. with ceramic thermal insulation
Plate connector	Svetlana PC-1A or equivalent
Socket	Svetlana SK4A, Standard small, four contact
Operating position-Axis vertical, base down or horizontal w/ pins 1 and 4 in vertical plane	
Nominal dimensions:	
Diameter	45.7 mm (1.8 in.)
Base to plate cap	147.3 mm (5.8 in.)
Overall height	162.6 mm (6.4 in.)
Net weight	113 gm

Linear RF Power Amplifier, Class B Grounded Grid, Maximum ratings

	ICAS*
DC plate voltage	2750 V
DC plate current	275 mA
Plate dissipation	160 W
DC Plate input	600 W
DC Grid current	50 mA

*Intermittant commercial and amateur service

Svetlana Outline drawing



Base pin connections,
bottom view

Notes:

The internal structure is aligned with respect to the base pins to avoid internal shorting problems in equipment designed for horizontal tube mounting.



Svetlana
ELECTRON DEVICES

Headquarters:

8200 South Memorial Parkway
Huntsville, AL 35802
USA
Phone: 205 882 1344
Fax: 205 880 8077

Marketing & Engineering:

3000 Alpine Road
Portola Valley, CA 94028
USA
Phone: 415 233 0429
Fax: 415 233 0439

www.svetlana.com

Svetlana 572B

High-Mu Power Triode



Svetlana
ELECTRON DEVICES

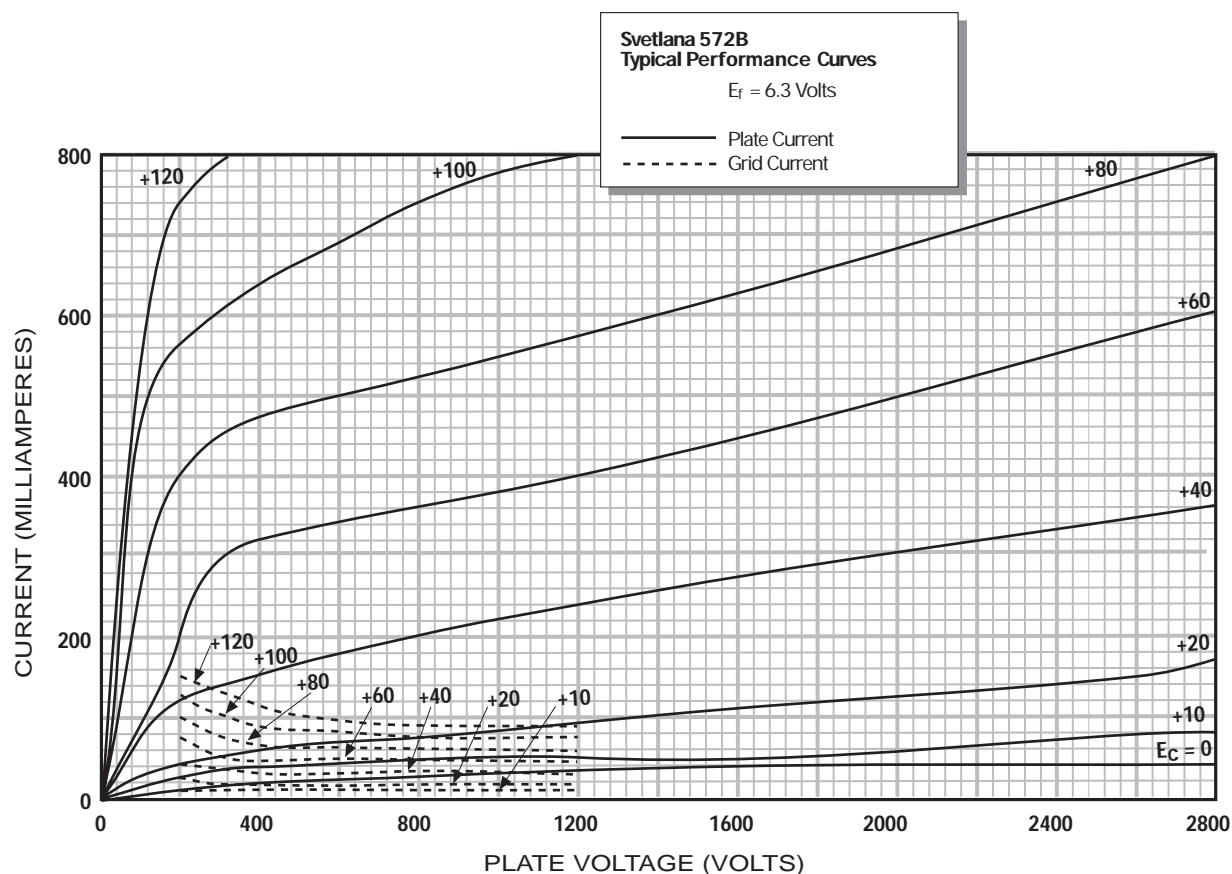
Typical Operation, Grounded Grid Linear Amplifier

(frequencies to 30 MHz)		ICAS**
DC plate voltage	2400	V
DC grid voltage	-2	V
Zero-signal DC plate current **	45	mA
Single-tone DC plate current	250	mA
Driving power	50	W
Single-tone useful output power **	300	W

** Approximate value

Mechanical Application

Mounting: The Svetlana 572B may be operated with its axis vertical and the base down, or horizontally with pins 1 and 4 in a vertical plane.



Versions of the 572B designed for audio amplifier service are available.
Ask for SV572 Series data.

No.15
Amateur Radio
572B

TECHNICAL BULLETIN

TECHNICAL TOPICS

Article as first appeared in RadCom Magazine

(October 1996)



A letter from George Badger, W6TC, of Svetlana notes that the Yaesu FL-2100 series of linears, using the 572B high-mu high-power triode, has proved very popular in the UK. He points out that the new Svetlana 572B has slightly higher gain than the original. When fitted in the FL-2100, FL-2100B, FL2100B and FL2100F linears they sometimes oscillate in the standby mode because, as Yaesu has confirmed, the cut-off bias is only slightly higher than cut-off. If the amplifier 'takes off' as an unloaded TPTG oscillator it can wreak havoc.

W6TC bought a used FL-2100B and modified the bias circuit: **Fig 5** shows the original arrangement and **Fig 6** the modification, incorporating a voltage-doubler configuration to increase the stand-by cut-off bias. After modification, the amplifier becomes unconditionally stable when fitted with the higher-gain Svetlana



The Heathkit SB-200 which uses a similar circuit has 100V cut-off bias and is stable when fitted with the Svetlana 572B. This applies also to the new Yaesu FL-2100Z.

file:///C:/WINDOWS/DESKTOP/Industrial Tubes/Technical Bulletin 15.htm (2 of 3) [10/7/2002 9:13:55 PM]

Svetlana Electron Devices, Inc (3000 Alpine Road, Portola Valley, CA 94028, USA) can also supply a 4CX400A tetrode for linear amplifier service and also a relatively inexpensive Svetlana SK2A ceramic socket for this valve. In the AB2 mode with 2.5kV EHT, it can produce over 600W PEP with low intermodulation distortion. A pair can produce 1.2kW PEP or CW at up to 500MHz.

**The information provided in this application note is intended for general design guidance only. The user assumes all responsibility for correct and safe usage of this information. Svetlana Electron Devices does not guarantee the usefulness or marketability of products based on this material.

[Back to Technical Bulletins Listing](#)