

SVETLANA TECHNICAL DATA

SV811-10A

High Performance Audio Power Triode



The Svetlana™ SV811-10A is a power triode intended for use in class A, AB, or B audio amplifiers. It is one of the lowest distortion tubes ever made.

Features:

- Directly heated thoriated tungsten filament for soft glow and warm sound
- Transmitting tube design, hard glass envelope with white ceramic base
- Low microphonic construction with ceramic internal spacers and mica supports
- Excellent gettering system
- Superb aesthetic appearance

Characteristics

Electrical

Filament:	Thoriated-tungsten
Voltage (AC or DC)	6.3 ± 0.3 V
Current	4 A
Amplification factor (nominal)	9.5
Transconductance (nominal)	3800 μS
Plate resistance (nominal)	2500 ohms
Interelectrode capacitances (typical), with filament grounded:	
Grid to plate	8 pF
Grid to filament	7 pF

Mechanical

Cooling	Radiation and convection
Base	Ceramic, four pin, small
Basing diagram	JEDEC 4D
Socket	Svetlana SK4A or equivalent
Operating position-	Axis vertical, base down or horizontal w/pins 1 and 4 in vertical plane (Adequate surrounding clearance for cooling must be maintained)

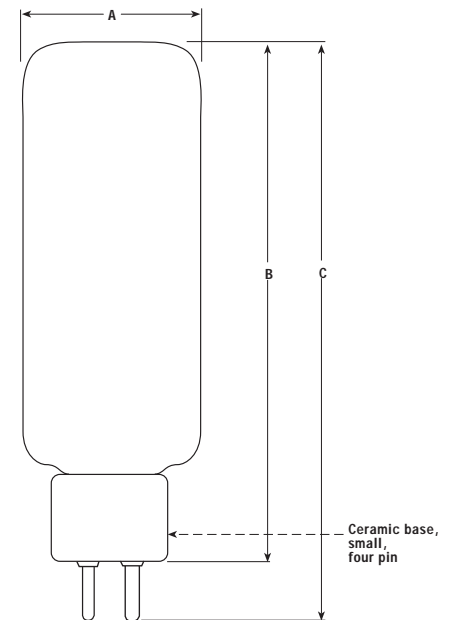
Nominal dimensions:

Diameter	45.7 mm (1.8 in.)
Base to top	127 mm (5.0 in.)
Overall height	138.2 mm (5.44 in.)
Net weight	100 g

Maximum ratings

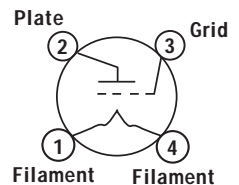
DC plate voltage	800 V
Maximum-signal DC plate current	160 mA
Plate Dissipation	65 W
Grid Current	50 mA

Svetlana Outline drawing



Dimensional Data		
Dim.	Millimeters	Inches
A	45.7	1.80
B	127	5.00
C	138.2	5.44

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 mounting.

The anode may be operated while showing small red spots, without decreasing lifetime, as long as dissipation is kept below 65 watts.



Svetlana
ELECTRON DEVICES

Headquarters:

8200 South Memorial Parkway
Huntsville, AL 35802
USA
Phone: 256 882 1344
Fax: 256 880 8077

Marketing & Engineering:

3000 Alpine Road
Portola Valley, CA 94028
USA
Phone: 650 233 0429
Fax: 650 233 0439

www.svetlana.com

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Typical Operation, Single Tube, Class A

DC plate voltage	450	800	V
Grid voltage	-9	-45	V
Peak grid drive	110	127	V P-P
DC Plate current, zero signal	80	80	mA
DC Plate current, max signal	100	91	mA
Plate load resistance	5000	5000	ohms
Distortion at max output	1.0	1.0	%
Power output at distortion above	8.3	13.4	W

Typical Operation, Push-Pull, Two Tubes, Class AB₁

DC plate voltage	450	800	V
DC grid voltage	-16.5	-51	V
Peak grid-to-grid drive	360	420	V P-P
DC Plate current, zero signal (per tube)	150	150	mA
DC Plate current, max signal (per tube)	250	260	mA
Plate load resistance	9600	9600	ohms
Distortion at max output	3.0	3.0	%
Power output at distortion above	41	91	W

(Note: allow for contact potential and secondary emission in grid biasing.)

