

SVETLANA TECHNICAL DATA

SV811-3A

Low-Mu Audio Power Triode



The Svetlana™ SV811-3A is a power triode intended for use in class A, AB, or B audio amplifiers. It features:

- Directly heated thoriated tungsten filament for soft glow and warm sound
- Hard glass envelope with white ceramic base
- Low microphonic construction with ceramic internal spacers
- Titanium 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)	3.5
Transconductance (nominal)	1700 μS
Plate resistance (nominal)	2000 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 (maintain at least 4 inches clearance from other components)

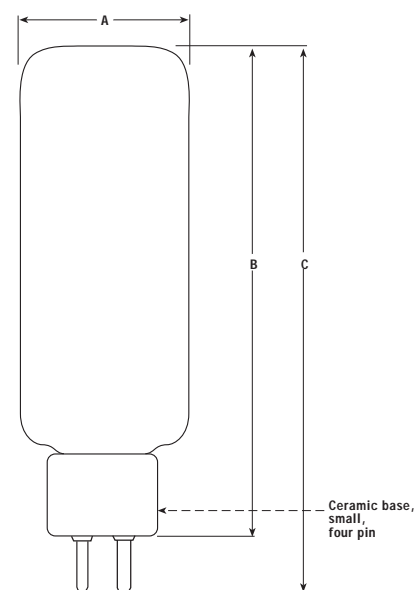
Nominal dimensions:

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

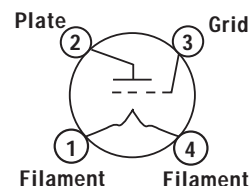
DC plate voltage	800 V
Maximum-signal DC plate current	160 mA
Plate Dissipation	65 W
Grid Current	50 mA

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.



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Typical Operation, Single Tube, Class A

Class of Operation	A1	A1	A2	
DC plate voltage	450	800	450	V
Grid voltage	-65	-165	-65	V
Peak grid drive	130	30	280	V P-P
DC plate current, zero signal	80	80	80	mA
DC plate current, max signal	83	90	105	mA
Plate load resistance	5000	5000	5000	Ohms
Distortion at max output	0.2	1.0	1.0	%
Power output at distortion above	3.2	15.4	12.4	W

Typical Operation, Audio Power Amplifier, Push-Pull, Two Tubes

Class of Operation	AB1	AB1	AB2	
DC plate voltage	450	750	750	V
Grid voltage	-80	-178	-178	V
Peak grid drive, grid to grid	328	720	880	V P-P
DC plate current, zero signal	150	150	150	mA
DC plate current, max signal	155	215	238	mA
Plate load resistance	9600	9600	9600	Ohms
Distortion at max output	0.12	3.0	5.0	%
Power output at distortion above	10	49	66	W

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

