

# Svetlana TH5-6 Industrial Power Triode

**T**he Svetlana™ TH5-6 is a high performance ceramic/metal power triode designed for use in industrial and commercial service. The principal use is as a Class C high power oscillator for dielectric heating equipment. In many applications, the plate power supply may be completely unfiltered.

The Svetlana TH5-6 is identical in electrical characteristics to the TH5-4, except that its fragile hairpin filament is replaced with a rugged, low-inductance, mesh-filament basket.

The Svetlana TH5-6 is a direct replacement for models TH5-4 and TH5-6 manufactured in the United States.

## General Characteristics

### Electrical

Filament:	Thoriated-tungsten MESH
Voltage (AC or DC)	7.50 ± 0.37 V
Current	51.5 A
Amplification factor (average)	22
Maximum frequency	110 MHz
Interelectrode capacitances, with filament grounded:	
Input	35.0 pF
Output	0.9 pF
Feedback	20.0 pF

### Mechanical

Cooling	Forced air
Base	Coaxial
Socket	Via Spring Collets
Operating position-	Vertical, base up or down
Nominal dimensions:	
Diameter	106 mm (4.2 in.)
Length	261 mm (10.3 in)
Maximum operating temperature	250° C
Net weight (average)	2.8 kg (6.2 lb.)

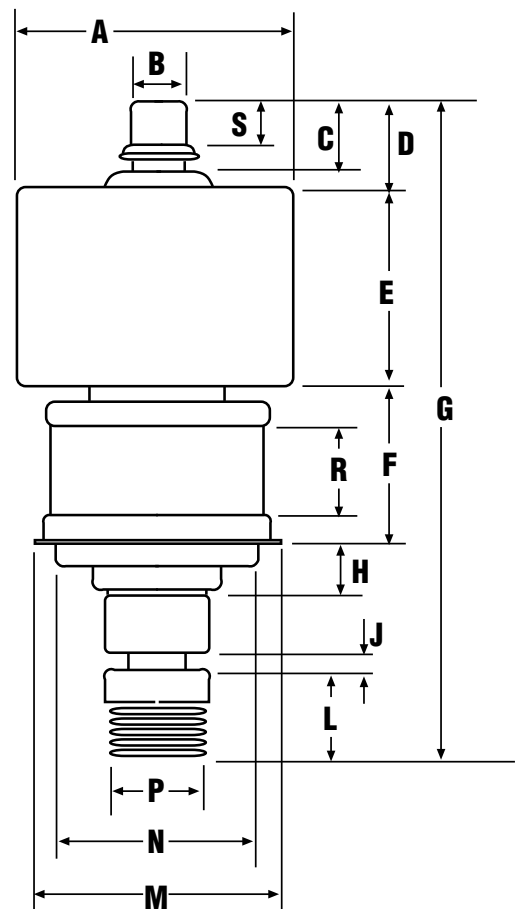
### Maximum ratings

DC plate voltage	6000 V
Maximum-signal DC plate current	2500 mA
Plate Dissipation	4000 W
Grid Dissipation	150 W
DC grid voltage	-1000 V

### Typical Operation, Class C (Frequencies to 30 MHz)

DC plate voltage	4,000	5,000	6,000	V
DC grid voltage	-300	-450	-500	V
Peak grid voltage	580	750	765	V
Plate current	2,500	2,500	2,080	mA
DC grid current	-245	-265	-80	mA
Grid dissipation	68	78	46	W
Power output	7,500	10,000	10,000	W
Plate dissipation	2,500	2,500	2,500	W

Svetlana TH5-6 Outline drawing



## Dimensional Data

Dim.	Millimeters		Inches		Dim.	Millimeters		Inches	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	103.99	105.56	4.094	4.156	J	18.42	25.10	0.725	0.988
B	19.84	21.44	0.781	0.844	L	30.86	32.21	1.215	1.268
C	25.40	28.58	1.000	1.125	M	81.28	92.08	3.200	3.625
D	30.18	42.88	1.188	1.688	N	75.95	76.45	2.990	3.010
E	74.60	77.80	2.937	3.063	P	37.85	38.35	1.490	1.510
F	46.99	55.63	1.850	2.190	Q	49.20	54.92	1.937	2.162
G	228.60	261.62	9.000	10.300	R	34.93	42.85	1.375	1.687
H	21.59	26.92	0.850	1.060	S	11.10	—	0.437	—



**Svetlana**  
ELECTRON DEVICES

**Headquarters:**  
8200 South Memorial Parkway  
Huntsville, AL 35802  
USA  
Phone: 205 882 1344  
Fax: 205 880 8077  
Toll Free: 1 800 239 6900

**Marketing & Engineering:**  
3000 Alpine Road  
Portola Valley, CA 94028  
USA  
Phone: 415 233 0429  
Fax: 415 233 0439  
Toll Free: 1 800-5-SVETLANA  
(1-800-578-3852)

