Svetlana TH5-6
Industrial Power Triode

The 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.)*	

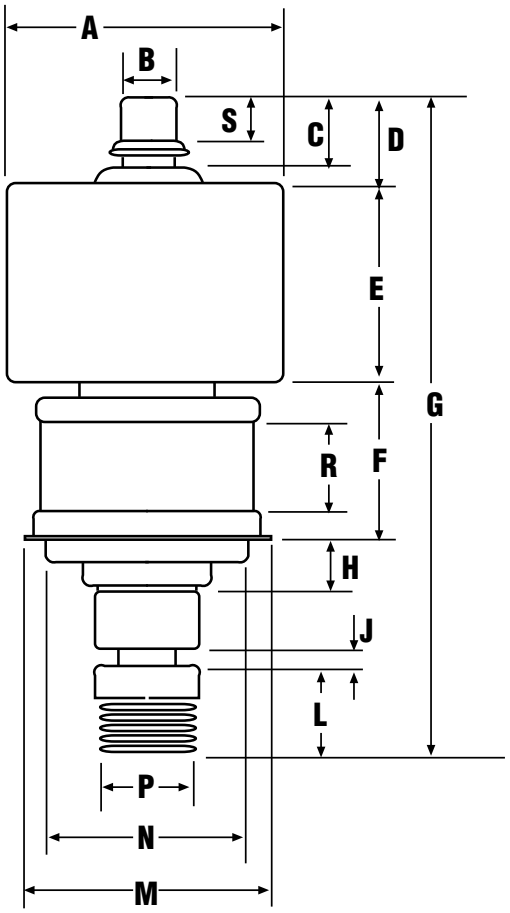
Maximum ratings

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	
	Min.	Max.	Min.	Max.
A	103.99	105.56	4.094	4.156
B	19.84	21.44	0.781	0.844
C	25.40	28.58	1.000	1.125
D	30.18	42.88	1.188	1.688
E	74.60	77.80	2.937	3.063
F	46.99	55.63	1.850	2.190
G	228.60	261.62	9.000	10.300
H	21.59	26.92	0.850	1.060

Dim.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
J	18.42	25.10	0.725	0.988
L	30.86	32.21	1.215	1.268
M	81.28	92.08	3.200	3.625
N	75.95	76.45	2.990	3.010
P	37.85	38.35	1.490	1.510
Q	49.20	54.92	1.937	2.162
R	34.93	42.85	1.375	1.687
S	11.10	—	0.437	—

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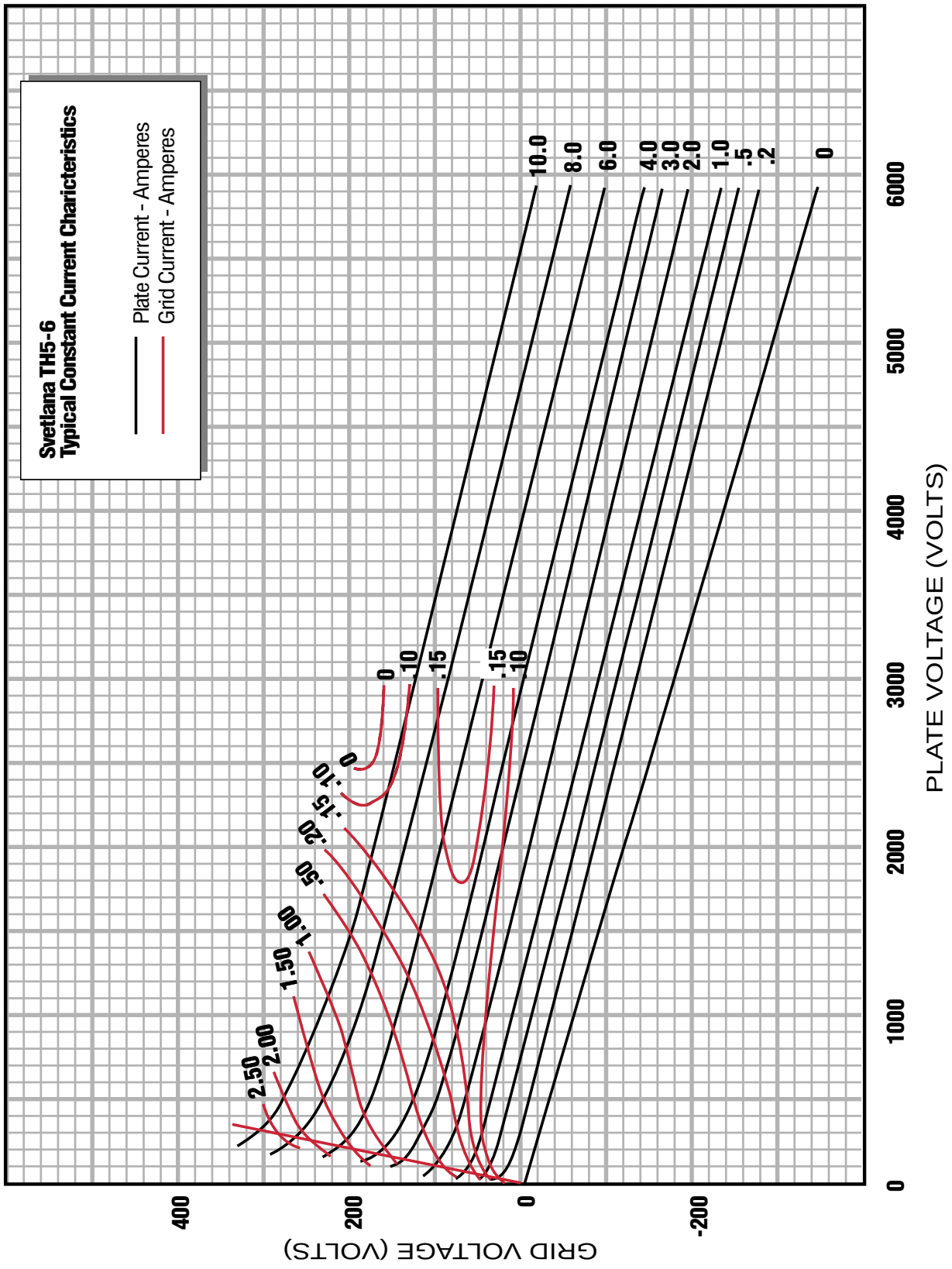
Svetlana TH5-6
Typical Constant Current Charicteristics
Plate Current - Amperes
Grid Current - Amperes
10.0
8.0
6.0
4.0
3.0
2.0
1.0
.5
.2
0
.10
.15
.15
.10
0
.10
.15
.20
.50
1.00
1.50
2.00
2.50
400
200
0
-200
GRID VOLTAGE (VOLTS)
0
1000
2000
3000
4000
5000
6000
PLATE VOLTAGE (VOLTS)