



ELECTRONIC TUBE REFERENCE

3CX6000H3

Power - Triode (over 1000V 100W) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

TRIODE

Highly reliable forced-air-cooled ceramic/metal power triode for amplifier and oscillator service. A rigid mesh filament is intended to improve longevity, while 6 kW plate dissipation supports roughly 9 kW RF output.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	5 V / 72 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Triode	
AMPLIFICATION FACTOR	22
MAXIMUM PLATE VOLTAGE	8000 V
MAXIMUM PLATE DISSIPATION	6000 W
MAXIMUM GRID DISSIPATION	400 W
Promoted maximum ratings and characteristics from source; additional published values retained as parameters.	

The Svetlana™ 3CX6000H3 is a highly reliable ceramic/metal power triode designed for use in amplifier or oscillator service. A modern mesh filament is used, ensuring better mechanical rigidity and long lasting concentricity of the filament, contributing to longer life. Flexible leads connect to the filament terminals and a mounting flange provides the grid connection. The flange provides a convenient way to mount the tube. The Svetlana 3CX6000H3 is manufactured in the Svetlana Electron Devices complex in St. Petersburg, Russia. Characteristics Svetlana Outline drawing R Electrical Filament: Thoriated-tungsten mesh Voltage 5.0 ± 0.25 V A Current @ 5.0V 72 A B Anode Amplification factor (average) 22 Direct interelectrode capacitances, with filament grounded*: Input 50.0 pF Output 1.2 pF P F Grid Flange

Feedback 30 pF J K Maximum usable frequency (CW) 90 MHz V (12 holes) Mechanical M Cooling Forced
air

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

199X Svetlana

Published test conditions and operating points. Values on this page are preserved as reported by this source.

199X SVETLANA

Section 1 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Voltage 5.0±	0.25 V	triode designed for use in amplifier or oscillator service. A modern
Current @	5 V	triode designed for use in amplifier or oscillator service. A modern
Input	50 pF	triode designed for use in amplifier or oscillator service. A modern
Output	1.2 pF	triode designed for use in amplifier or oscillator service. A modern
Feedback	30 pF	triode designed for use in amplifier or oscillator service. A modern
Maximum usable frequency (CW)	90 MHz	triode designed for use in amplifier or oscillator service. A modern

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
DC plate voltage	8000 V	Maximum Ratings:
Plate dissipation	6000 W	Maximum Ratings:
Grid dissipation	400 W	Maximum Ratings:
DC grid voltage	-550 V	Maximum Ratings:
DC grid current	450 mA	Maximum Ratings:
Phone: 256 882 1344 Phone: 650 233	429 V	Maximum Ratings:
DC plate voltage	8000 V	Typical Operation, Grounded Cathode
DC plate current	1.56 A	Typical Operation, Grounded Cathode
DC grid voltage	-400 V	Typical Operation, Grounded Cathode
DC grid current	290 mA	Typical Operation, Grounded Cathode

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak positive RF grid voltage	765 V	Typical Operation, Grounded Cathode
Plate input power	12480 W	Typical Operation, Grounded Cathode
Plate dissipation	3480 W	Typical Operation, Grounded Cathode
Plate output power	9000 W	Typical Operation, Grounded Cathode
1 The cooling requirements above are based on	50 °C	Typical Operation, Grounded Cathode
temperature below	200 °C	Typical Operation, Grounded Cathode