



ELECTRONIC TUBE REFERENCE

3CX4500F3

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

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

TRIODE

Forced-air-cooled ceramic/metal power triode for amplifier, oscillator, and modulator service. Rated for 6 kW plate dissipation and 9 kV plate voltage, with published RF output around 15 kW.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	7 V / 78 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	9000 V
MAXIMUM PLATE DISSIPATION	6000 W
MAXIMUM GRID DISSIPATION	300 W
MAXIMUM CATHODE CURRENT	2.75 A
<i>Promoted maximum ratings and characteristics from source; additional published values retained as parameters.</i>	

The Svetlana™ 3CX4500F3/[YU108](#) is a high-performance ceramic/metal power triode designed for use in amplifier, oscillator, or modulator service. A modern mesh filament is used, replacing the old-fashioned hairpin construction. The improved mesh filament design ensures better mechanical rigidity and long lasting concentricity of the filament, contributing to longer life. Flexible leads connect to the filament terminals and a flange is connected to the grid. The flange provides a convenient way to mount the tube. The Svetlana 3CX4500F3/[YU108](#) is manufactured in the Svetlana Electron Devices complex in St. Petersburg, Russia. Svetlana has achieved the improved performance described above with exact

replacement compatibility with the 3CX4500F3/[YU108](#) manufactured in the United States. Characteristics
Svetlana Outline drawing Electrical Filament: Thoriated-tungsten mesh B A Voltage 7.0 ± 0.35 V S Anode
Cooler Current @ 7.0V 78 A & Terminal R Amplification factor (average) 22 L Direct interelectrode
capacitances, with filament grounded*: P Input 35.0 pF C Output 0.9 pF Grid Flange Feedback 20 pF F

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 7.0±	0.35 V	power triode designed for use in amplifier, oscillator, or modulator
Current @	7 V	power triode designed for use in amplifier, oscillator, or modulator
Input	35 pF	power triode designed for use in amplifier, oscillator, or modulator
Output	0.9 pF	power triode designed for use in amplifier, oscillator, or modulator
Feedback	20 pF	power triode designed for use in amplifier, oscillator, or modulator
Maximum frequency for full ratings (CW)	75 MHz	power triode designed for use in amplifier, oscillator, or modulator

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate dissipation	6000 W	Maximum Ratings:
Grid dissipation	300 W	Maximum Ratings:
DC grid voltage	-1000 V	Maximum Ratings:
DC grid current	800 mA	Maximum Ratings:
(Frequencies to	30 MHz	Typical Operation ELECTRON DEVICES
DC plate current	2.75 A	Typical Operation ELECTRON DEVICES
DC grid voltage	-705 V	Typical Operation ELECTRON DEVICES
DC grid current	680 mA	Typical Operation ELECTRON DEVICES
Peak positive RF grid voltage	346 V	Typical Operation ELECTRON DEVICES
Driving power	710 W	Typical Operation ELECTRON DEVICES

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid resistor	1040 0hms	Typical Operation ELECTRON DEVICES
Plate input power	22000 W	Typical Operation ELECTRON DEVICES
Plate dissipation	4800 W	Typical Operation ELECTRON DEVICES
Plate output power	15000 W	Typical Operation ELECTRON DEVICES
Approximate load impedance	1437 0hms	Typical Operation ELECTRON DEVICES

TUBE TINKER

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and their source documents.

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