



ELECTRONIC TUBE REFERENCE

3CPX800A7

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

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
TRIODE

High-mu power triode for substantial RF amplification and transmitting service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	E11-81	BASE PINS	11
NOMINAL HEATER	13.5 V / 1.5 A	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Triode	
AMPLIFICATION FACTOR	200
MAXIMUM PLATE VOLTAGE	4500 V
MAXIMUM PLATE DISSIPATION	800 W
MAXIMUM GRID DISSIPATION	4 W
MAXIMUM CATHODE CURRENT	8 A
Promoted maximum ratings and characteristics from source; additional published values retained as parameters.	

he Svetlana™ 3CPX800A7 is a high performance ceramic/metal high-mu power triode designed for use in communications and industrial service. The principal use is for pulsed RF amplifier, pulse modulator, or regulator service. When operated as a pulse modulator, the Svetlana 3CPX800A7 will hold off a maximum plate voltage of 4500 volts. Maximum plate current is 8 amps at a pulse duration of 100 microseconds. The Svetlana 3CPX800A7 is a direct replacement for the model 3CPX800A7 manufactured in the United States. Characteristics Svetlana Outline drawing Electrical Cathode: Oxide-coated unipotential Index (aligned with missing base pin) Heater Voltage (AC or DC) 13.5 ± 0.6 V B Heater Current @ 13.5V 1.5 A J Minimum warm-up time 3 min. Amplification factor (average) 200 K Maximum Frequency for Full Ratings

500 MHz Interelectrode capacitances, with grid grounded: ANODE C Input 25.5 pF E A Output 6.1 pF
Grid (Contact Plate-Cathode 0.04 pF outer cylindrical F D surfaces only) Mechanical G

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
Heater Voltage (AC or DC) 13.5 ±	0.6 V	When operated as a pulse modulator, the Svetlana 3CPX800A7 will hold off a
Heater Current @	13.5 V	When operated as a pulse modulator, the Svetlana 3CPX800A7 will hold off a
Minimum warm-up time	3 min	When operated as a pulse modulator, the Svetlana 3CPX800A7 will hold off a
Maximum Frequency for Full Ratings	500 MHz	When operated as a pulse modulator, the Svetlana 3CPX800A7 will hold off a
Input	25.5 pF	When operated as a pulse modulator, the Svetlana 3CPX800A7 will hold off a
Output	6.1 pF	When operated as a pulse modulator, the Svetlana 3CPX800A7 will hold off a
Plate-Cathode	0.04 pF	When operated as a pulse modulator, the Svetlana 3CPX800A7 will hold off a

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Dissipation	800 W	Maximum ratings, Pulse Modulator or Switch Tube Service
Grid Dissipation	4 W	Maximum ratings, Pulse Modulator or Switch Tube Service
DC grid current (average)	60 mA	Maximum ratings, Pulse Modulator or Switch Tube Service
Plate voltage	4500 V	Typical Operation Svetlana
Pulse plate current	5 A	Typical Operation Svetlana
Grid voltage	-50 V	Typical Operation Svetlana
Pulse positive grid voltage	70 V	Typical Operation Svetlana

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Pulse grid current	200 mA	Typical Operation Svetlana
Pulse drivng power	25 W	Typical Operation Svetlana
Pulse output power	20000 W	Typical Operation Svetlana
Pulsed Maximum Ratings (to	500 MHz	Pulsed Maximum Ratings (to 500 MHz)
DC plate voltage	3500 V	Pulsed Maximum Ratings (to 500 MHz)
Plate current (average)	600 mA	Pulsed Maximum Ratings (to 500 MHz)
Peak plate current (average during pulse)	2.5 A	Pulsed Maximum Ratings (to 500 MHz)
Plate dissipation (average)	800 W	Pulsed Maximum Ratings (to 500 MHz)
Grid current (average)	60 mA	Pulsed Maximum Ratings (to 500 MHz)
Grid dissipation (average)	4 W	Pulsed Maximum Ratings (to 500 MHz)
DC plate voltage	3500 V	Typical Operation
DC cathode voltage	15 V	Typical Operation
Zero signal plate current	20 mA	Typical Operation
Pulse grid current	105 mA	Typical Operation
Cathode input impedance	30 ohms	Typical Operation
Power output	6000 W	Typical Operation
Resonant load impedance	660 Ohms	Typical Operation

TUBE TINKER

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