

TYPE

6X4W



# Excellence in Electronics

The 6X4W is a heater-cathode type high-vacuum double diode of miniature construction designed for dependable operation as a full-wave power rectifier under conditions of shock and vibration usually found in mobile and aircraft applications.

#### MECHANICAL DATA

ENVELOPE: T-5½ Glass
BASE: Miniature Button 7-Pin
TERMINAL CONNECTIONS:

Pin 1 Plate, Diode #2
Pin 2 No Connection
Pin 3 Heater
Pin 4 Heater

Pin 1 Plate, Diode #2
Pin 5 No Connections
Pin 6 Plate, Diode #1
Pin 7 Cathode

### MECHANICAL RATINGS:

Maximum Impact Acceleration (Shock Test-Note 1)700 GMinimum Intermittent Heater Voltage Cycles (Note 2)2000

MOUNTING POSITION: Any

## **ELECTRICAL DATA**

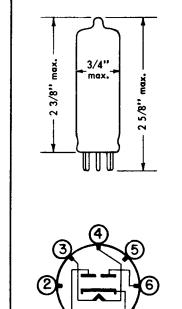
DC Output Current

#### **HEATER CHARACTERISTICS:**

Heater Voltage (ac or dc)	6.3 ± 10 %	volts
Heater Current	0.6	amps.
Maximum Heater - Cathode Voltage:		
Heater Positive with Respect to Cathode	495	volts
Heater Negative with Respect to Cathode	495	volts
RATINGS - ABSOLUTE MAXIMUM VALUES:		
Peak Inverse Plate Voltage	1375	volts
Peak Plate Current, per Plate	230	ma.
DC Outrid Commant	77	~~~

# CHARACTERISTICS AND TYPICAL OPERATION - FULL-WAVE RECTIFIER:

	Choke Input	Condenser Input
AC Plate Voltage, per Plate (RMS)	450	325 volts
Filter Input Condenser		$4 \mu f$ .
Minimum Filter Input Choke	8	henries
Total Effective Plate Supply Impedance, p	per Plate *	150 ohms
DC Output Current	70	70 ma.
DC Output Voltage at Input to Filter:		
At half-load (35 ma.)	390	385 volts
At full-load (70 ma.)	350	375 volts



BOTTOM VIEW

**5BS** 

77 ma.

Note 1 Test conditions and acceptance criteria per shock test procedures of JAN basic specifications.

Note 2 As checked at Ef= 7.5 volts ac, on one minute and off one minute.

Tentative Data

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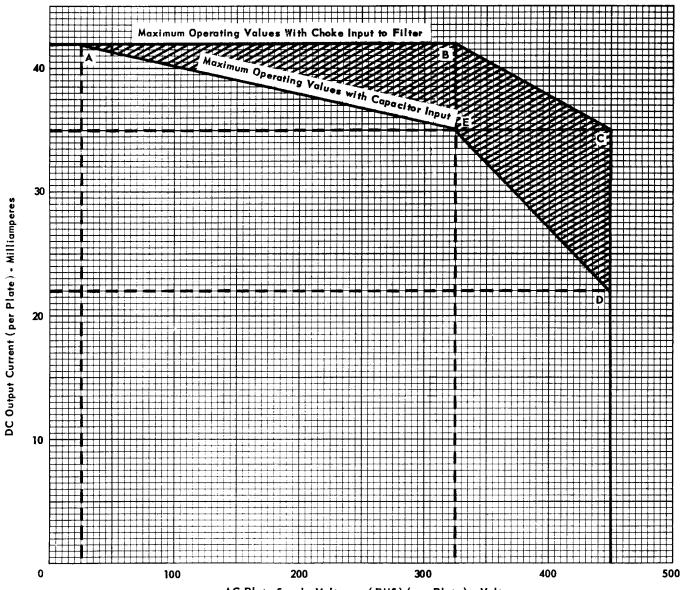
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<sup>\*</sup> Indicated value for conditions shown will limit peak plate current to maximum rated value. When a filter input condenser larger than 4 µf, is used, it may be necessary to increase the plate supply impedance to limit the peak current to the rated value.



#### **RATING CHART 1**



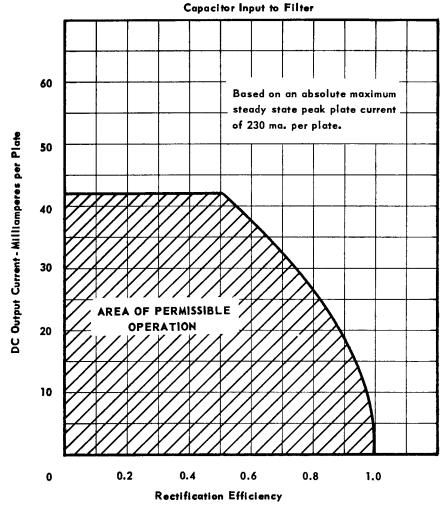
AC Plate Supply Voltage - (RMS) (per Plate) - Volts

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#### **RATING CHART 2**

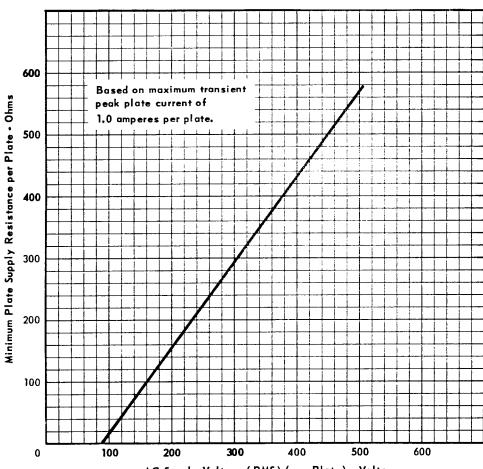
Maximum Rectification Efficiency To Keep Steady State Peak Current in Rating





#### **RATING CHART 3**

### Minimum Source Resistance to Keep Surge Current Within Rating



AC Supply Voltage (RMS) (per Plate) - Volts