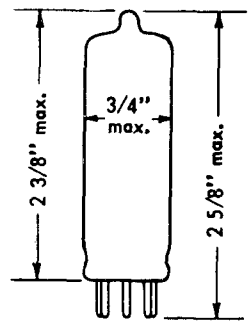
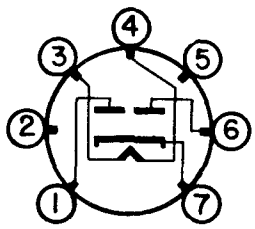
DOUBLE DIODE

TYPE 6X4W

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.





BOTTOM VIEW

5BS

MECHANICAL DATA

ENVELOPE: T-5½ Glass

BASE: Miniature Button 7-Pin

TERMINAL CONNECTIONS:

Pin 1 Plate, Diode #2	Pin 5 No Connections
Pin 2 No Connection	Pin 6 Plate, Diode #1
Pin 3 Heater	Pin 7 Cathode
Pin 4 Heater	

MECHANICAL RATINGS:

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

MOUNTING POSITION: Any

ELECTRICAL DATA

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 Output Current	77 ma.

CHARACTERISTICS AND TYPICAL OPERATION - FULL-WAVE RECTIFIER:

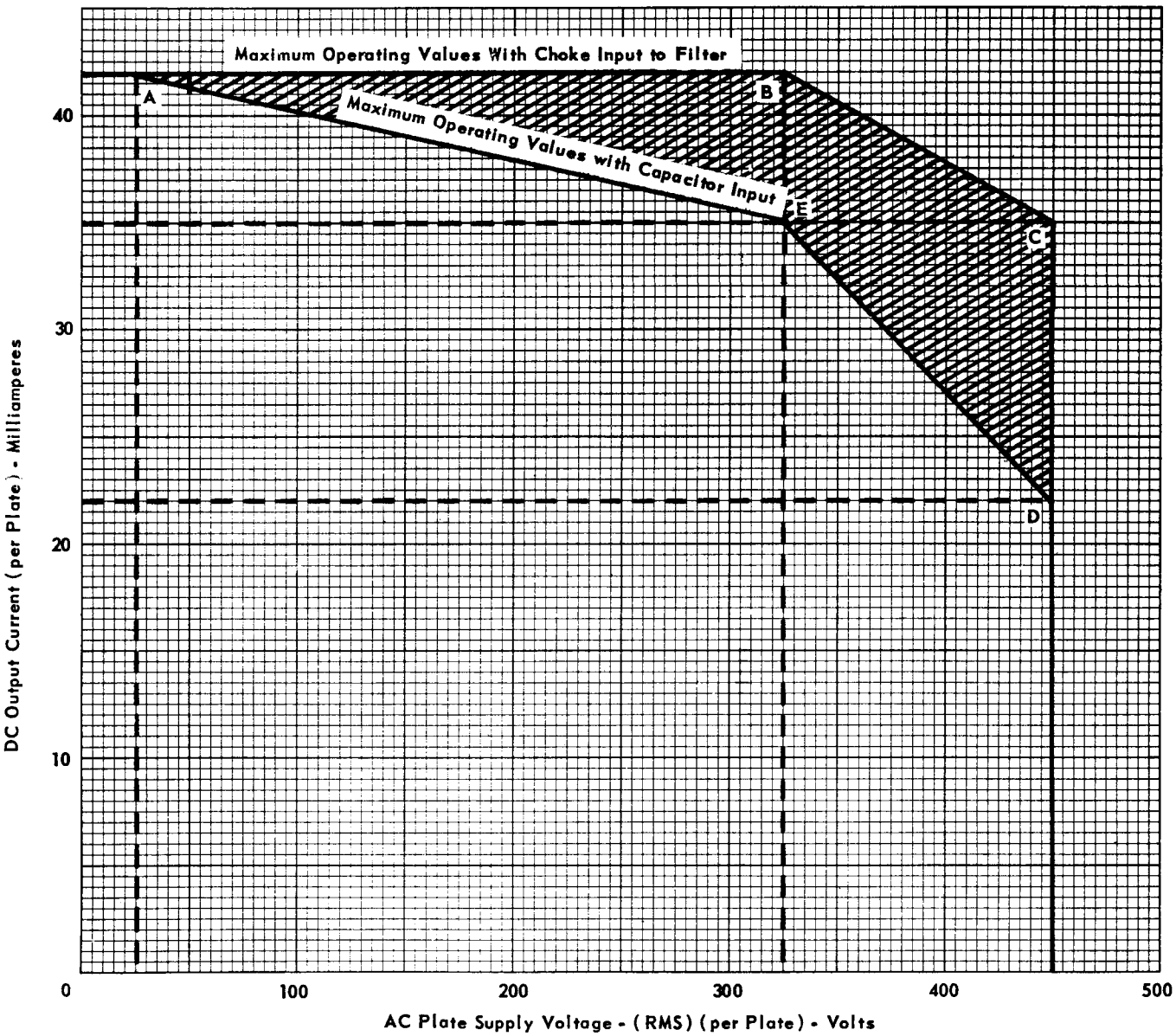
	Choke Input	Condenser Input
AC Plate Voltage, per Plate (RMS)	450	325 volts
Filter Input Condenser	---	4 μf.
Minimum Filter Input Choke	8	--- henries
Total Effective Plate Supply Impedance, per Plate *	---	150 ohms
DC Output Current	70	70 ma.
DC Output Voltage at Input to Filter:		
At half-load (35 ma.)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

* *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.*

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.

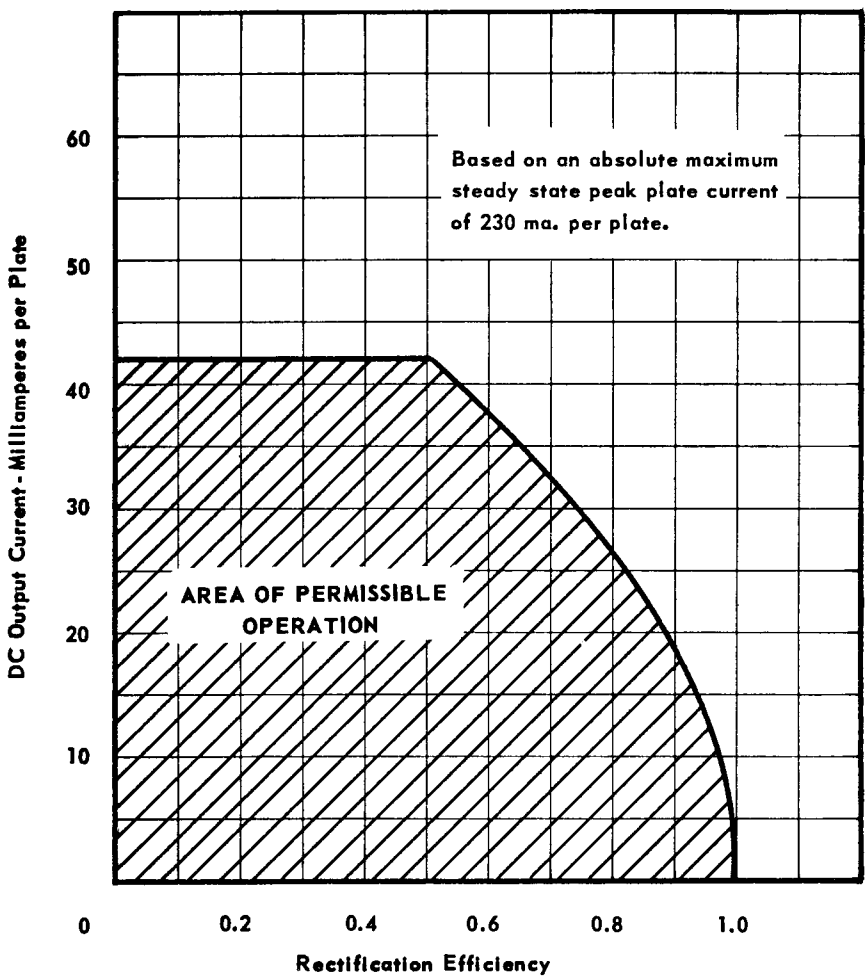
RATING CHART 1

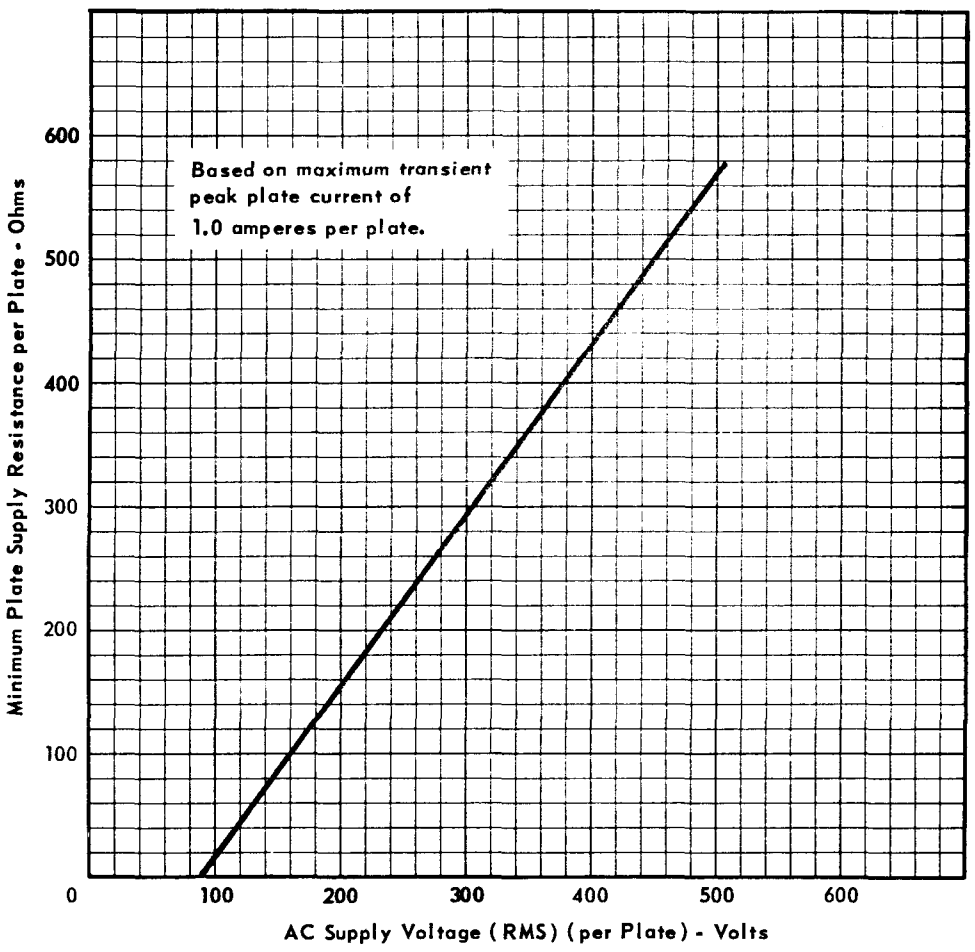


DOUBLE DIODE

RATING CHART 2

Maximum Rectification Efficiency
To Keep Steady State Peak
Current in Rating
Capacitor Input to Filter



RATING CHART 3

Minimum Source Resistance to Keep
Surge Current Within Rating