



5V3

FULL-WAVE VACUUM RECTIFIER

GENERAL DATA

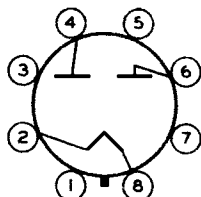
Electrical:

Filament, Coated:
 Voltage (AC or DC) 5 volts
 Current 3.8 amp

Mechanical:

Operating Position. Vertical, or Horizontal with pins 2 and 4 in vertical plane
 Maximum Overall Length. 4-5/8"
 Maximum Seated Length 4-1/16"
 Diameter. 1.438" to 1.562"
 Bulb. T12
 Base. Short Medium-Shell Octal 8-Pin with External Barriers, Style B (JEDEC Group 1, No. B8-118)
 Basing Designation for BOTTOM VIEW. 5T

Pin 1 - No Connection
 Pin 2 - Filament
 Pin 3 - Same as Pin 1
 Pin 4 - Plate No. 2



Pin 5 - Same as Pin 1
 Pin 6 - Plate No. 1
 Pin 7 - Same as Pin 1
 Pin 8 - Filament

FULL-WAVE RECTIFIER

Maximum Ratings, Design-Center Values:

For power-supply frequencies of 25 to 1000 cps

PEAK INVERSE PLATE VOLTAGE 1400 max. volts
 AC PLATE SUPPLY VOLTAGE PER PLATE (RMS)
 (See Rating Chart I) 500 max. volts
 STEADY-STATE PLATE CURRENT PER PLATE
 (See Rating Chart II) 1.2 max. amp
 TRANSIENT PEAK PLATE CURRENT PER PLATE
 (See Rating Chart III) 5.5 max. amp
 DC OUTPUT CURRENT. See Rating Chart I

Typical Operation:

	With capacitor input to filter		With choke input to filter	
AC Plate-to-Plate Supply Voltage (RMS)▲	600	850	1000	volts
Filter-Input Capacitor	40	40	-	μf
Filter-Input Choke	-	-	10	henries
Total Effective Plate Supply Impedance Per Plate	24	56	-	ohms
DC Output Voltage at input to filter	285	430	385	volts
DC Output Current	380	350	350	ma

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Characteristics:

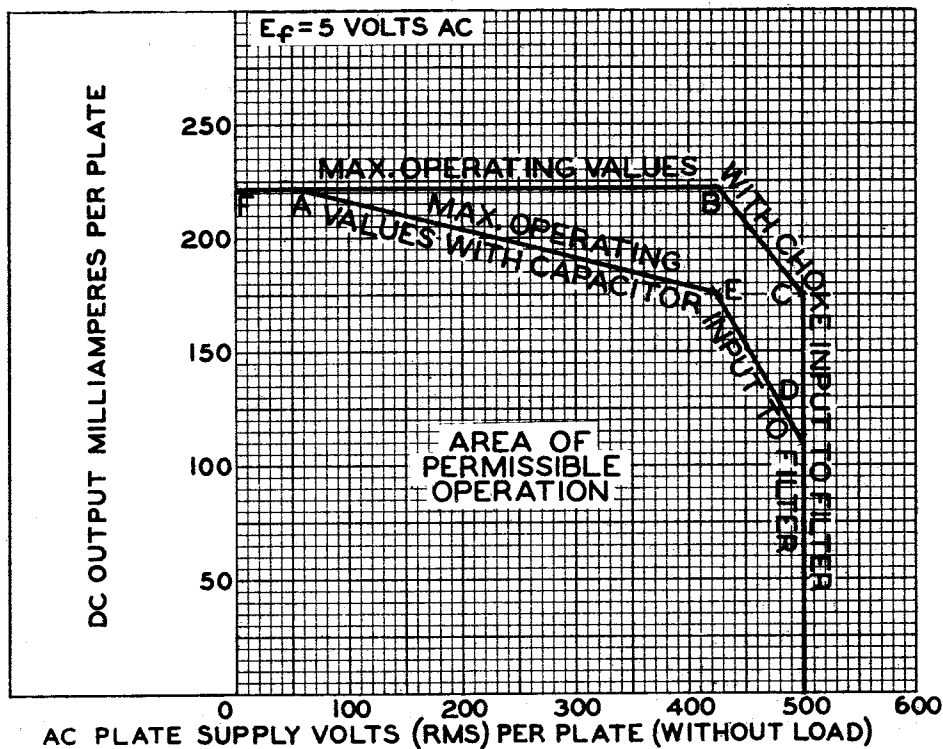
Tube-Voltage Drop for plate ma. = 350 (Per plate). 47 volts

▲ AC plate supply voltage is measured without load.

10-59

DATA

RATING CHART I



ELECTRON TUBE DIVISION

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

92CS-10231



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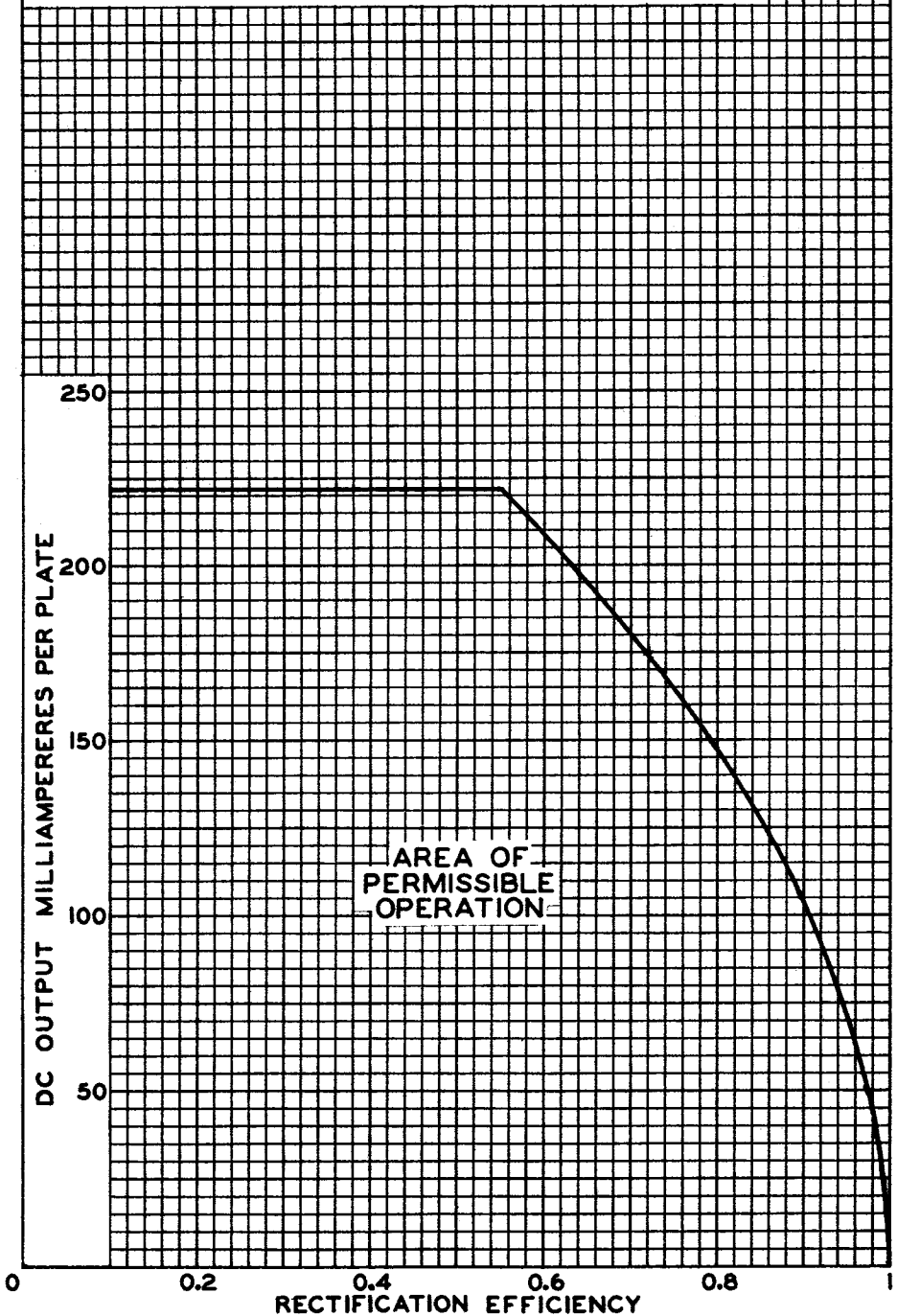
RATING CHART II CAPACITOR INPUT TO FILTER

$E_f = 5$ VOLTS AC

STEADY-STATE PEAK PLATE CURRENT PER PLATE
(AMPERES) = 1.2

$$\text{RECTIFICATION EFFICIENCY} = \frac{\bar{E}}{\sqrt{2} E_s}$$

WHERE $\bar{E}$ = DC OUTPUT VOLTS AT INPUT TO FILTER
 E_s = AC PLATE SUPPLY VOLTS (RMS) PER PLATE
(WITHOUT LOAD)

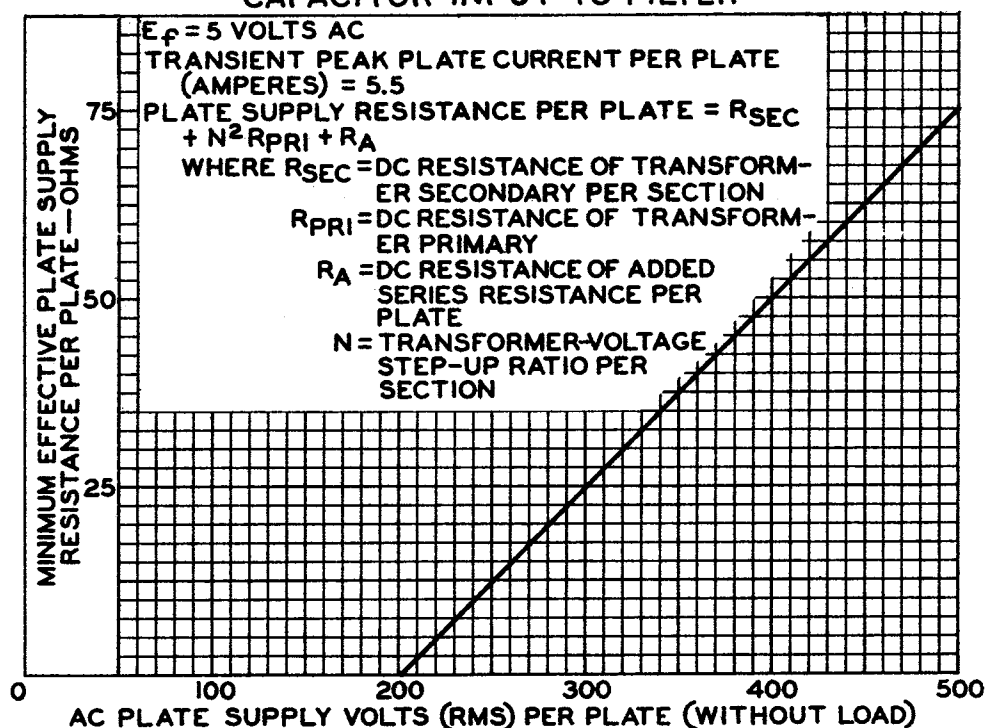


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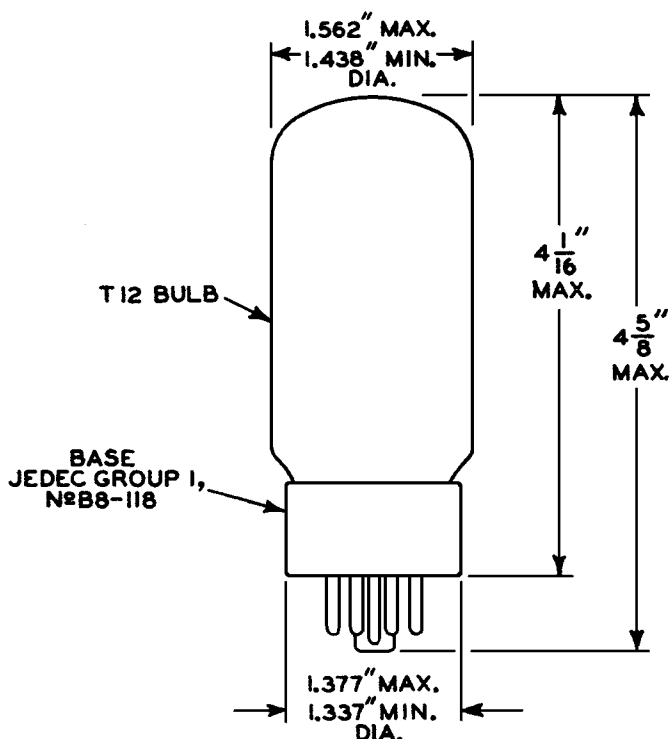


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RATING CHART III CAPACITOR INPUT TO FILTER



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92CS-10233