

Full-Wave Vacuum Rectifier

GENERAL DATA

Electrical:

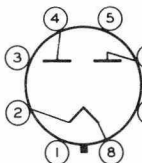
Filament, Coated:

Voltage (AC or DC) 5 volts
Current 3 amp

Mechanical:

Operating Position. Vertical, base down or up, or
Horizontal with pins 1 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 5-Pin
with External Barriers, Style B, Arrangement 1
(JEDEC Group 1, No. B5-121), or
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^a - No Connection



Pin 4 - Plate No. 2
Pin 5 - Same as Pin 3
Pin 6 - Plate No. 1
Pin 7 - Same as Pin 3
Pin 8 - Filament

FULL-WAVE RECTIFIER

Maximum Ratings, Design-Center Values:

For power-supply frequencies of 25 to 1000 cps

PEAK INVERSE PLATE VOLTAGE. 1550 max. volts
AC PLATE SUPPLY VOLTAGE PER PLATE
(RMS, without load) See Rating Chart I
STEADY-STATE PEAK PLATE CURRENT
PER PLATE (See Rating Chart II) 1 max. amp
TRANSIENT PEAK PLATE CURRENT
PER PLATE (See Rating Chart III). 4.6 max. amp
DC OUTPUT CURRENT See Rating Chart I

Typical Operation:

With capacitor- With choke-
input filter input filter

AC Plate-to-Plate Supply Voltage (RMS, without load) . .	600	900	1100	volts
Filter-Input Capacitor ^b .	40	40	-	μf
Filter-Input Choke. . . .	-	-	10	henrys

← Indicates a change.



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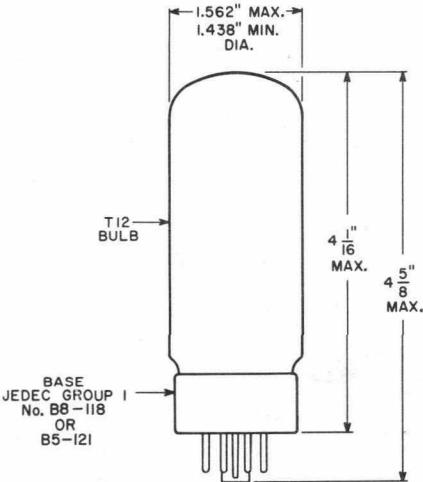
Total Effective Plate Supply Impedance				
Per Plate	21	67	-	ohms
DC Output Voltage at input to filter	290	460	420	volts
DC Output Current	300	275	275	ma

→ **Characteristics:**

Tube Voltage Drop for plate ma. (Per plate) =			
225			44 volts
275			50 volts
300			54 volts

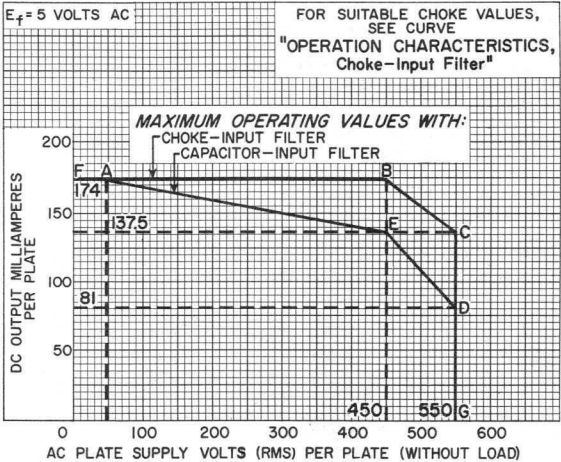
- ^a On the 5-pin base, pins 3, 5, and 7 are omitted.
- ^b Values of capacitance greater than 40 μ f may be used, provided the plate supply impedance is increased to prevent exceeding the maximum peak-plate-current rating.

→ Indicates a change.

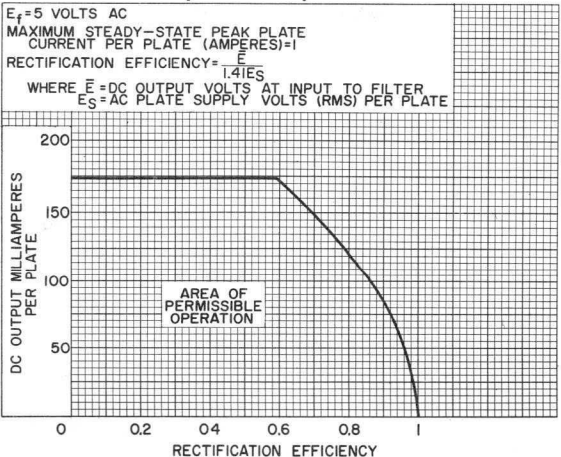


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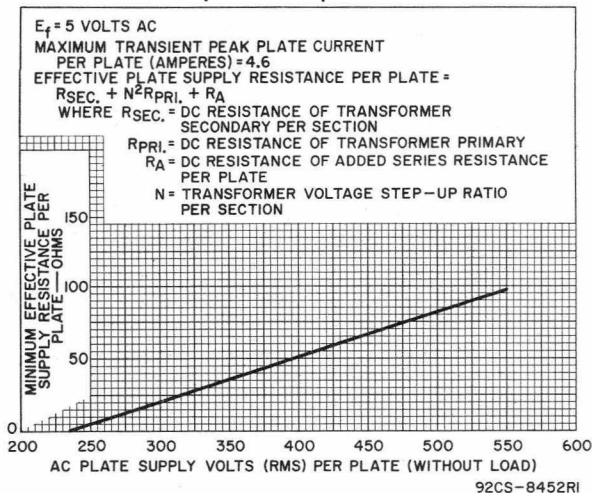
RATING CHART I



RATING CHART II Capacitor-Input Filter



RATING CHART III Capacitor-Input Filter



OPERATION CHARACTERISTICS Full-Wave Circuit, Capacitor-Input Filter

$E_f = 5$ VOLTS AC

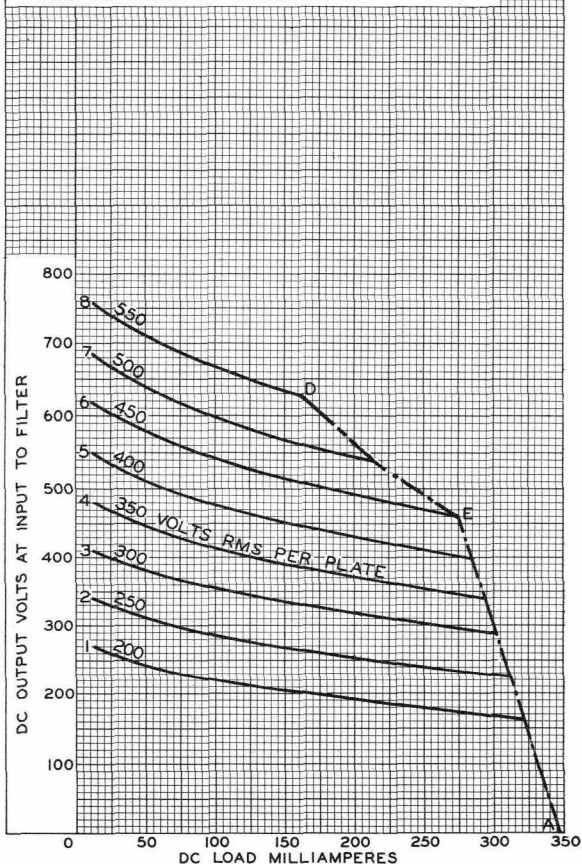
SUPPLY FREQUENCY (CPS) = 60

CAPACITOR (C) INPUT TO FILTER: (μf) = 40

TOTAL EFFECTIVE PLATE SUPPLY IMPEDANCE

PER PLATE	CURVE	1	2	3	4	5	6	7	8
	OHMS	11	11	20	36	52	67	82	97

CURRENT- AND VOLTAGE-BOUNDARY LINE 'DEA' IS THE SAME AS SHOWN ON RATING CHART I



92CM-8446RI



RADIO CORPORATION OF AMERICA
Electron Tube Division
Harrison, N. J.

DATA 3
7-61

OPERATION CHARACTERISTICS

Full-Wave Circuit, Choke-Input Filter

IS THE SAME AS SHOWN ON RATING CHART

