

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

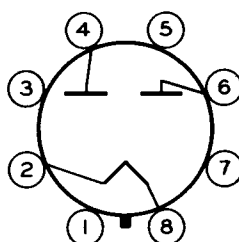
with External Barriers, Style B (JEDEC Group 1, No.B8-118)

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 - μ f

Filter-Input Choke. - - 10 henrys

← Indicates a change.



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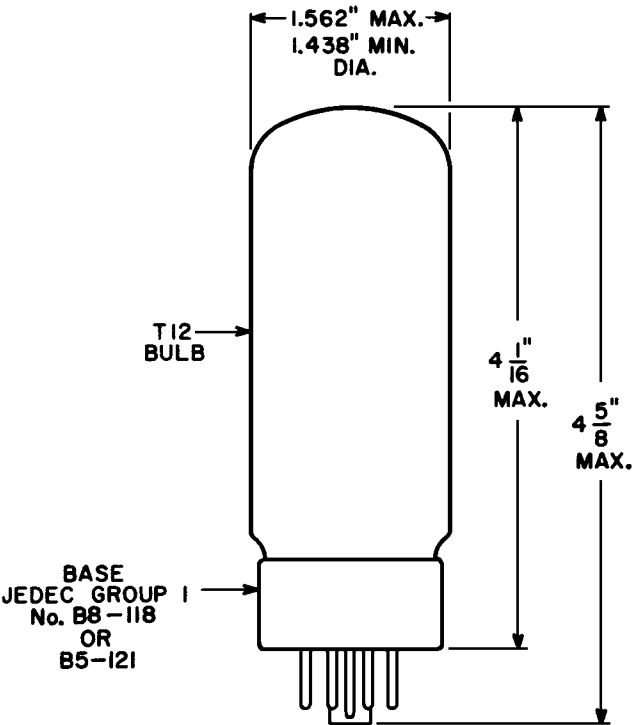
Total Effective Plate				
Supply Impedance				
Per Plate	21	67	—	ohms
DC Output Voltage at				
input to filter	290	460	420	volts
DC Output Current	300	275	275	ma

→ **Characteristics:**

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

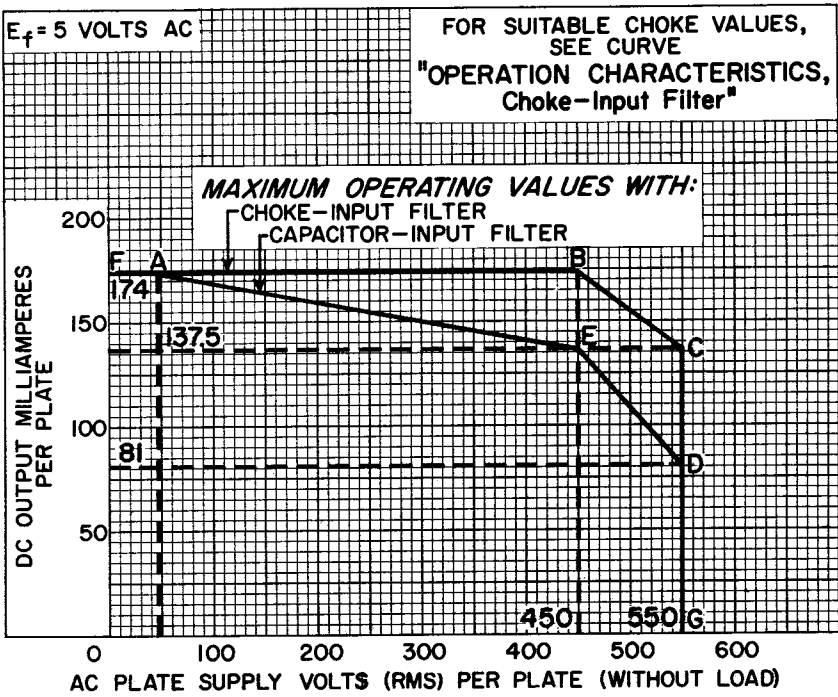
- ^a On the 5-pin base, pins 3, 5, and 7 are omitted.
- ^b Values of capacitance greater than 40 μ f may be used, provided the plate supply impedance is increased to prevent exceeding the maximum peak-plate-current rating.

→ Indicates a change.

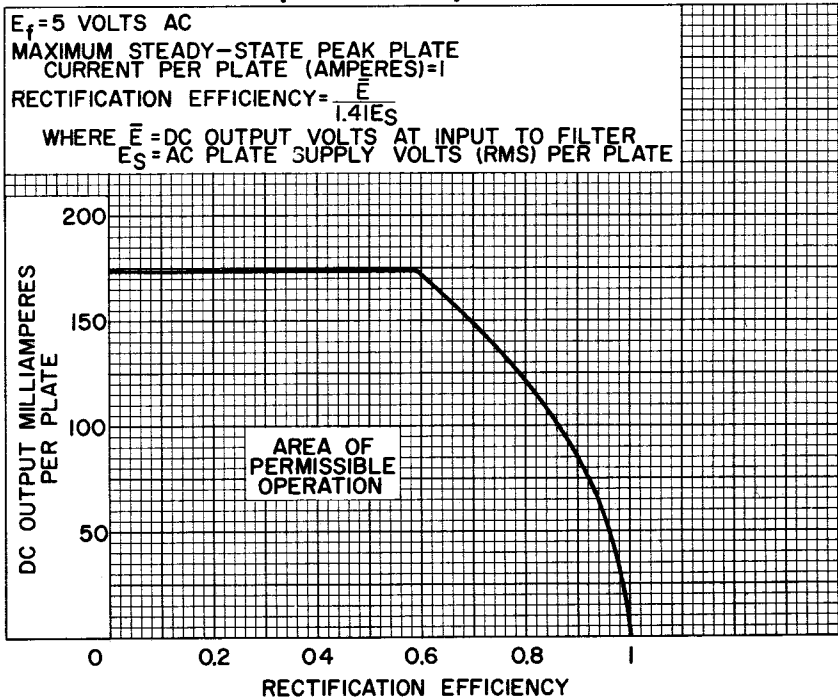


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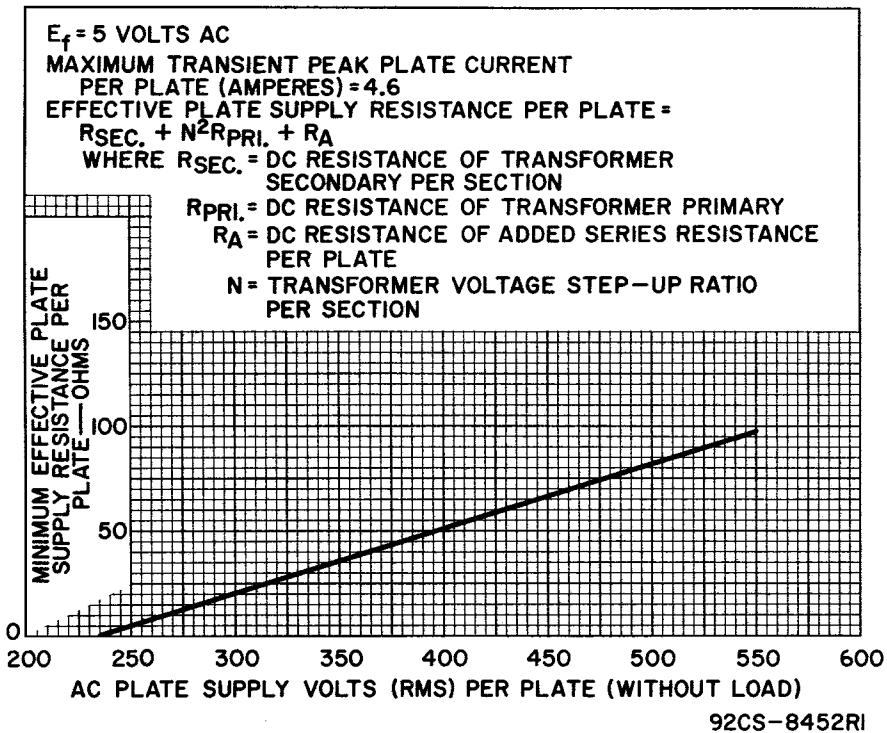
RATING CHART I



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

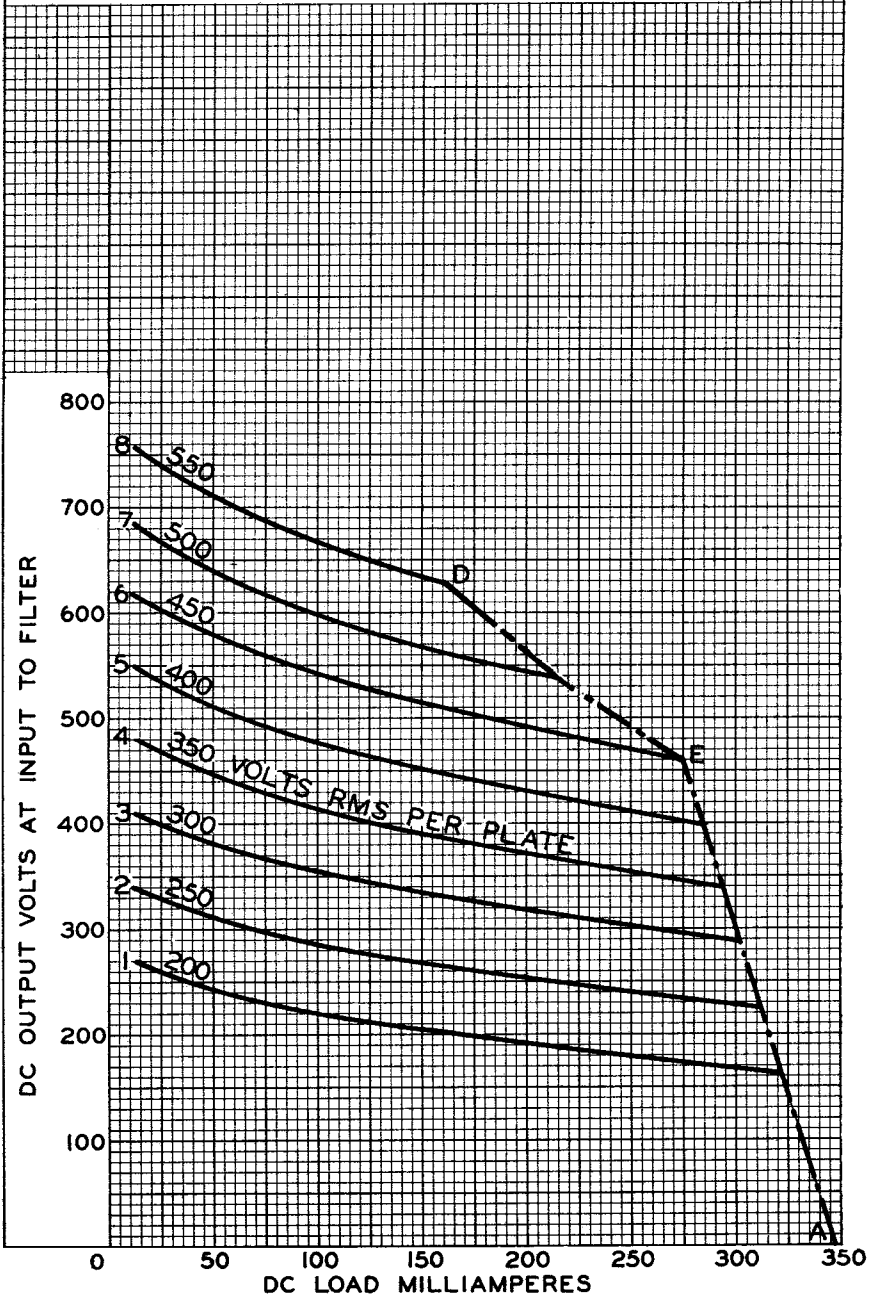
SUPPLY FREQUENCY (CPS) = 60

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



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RADIO CORPORATION OF AMERICA
Electron Tube Division

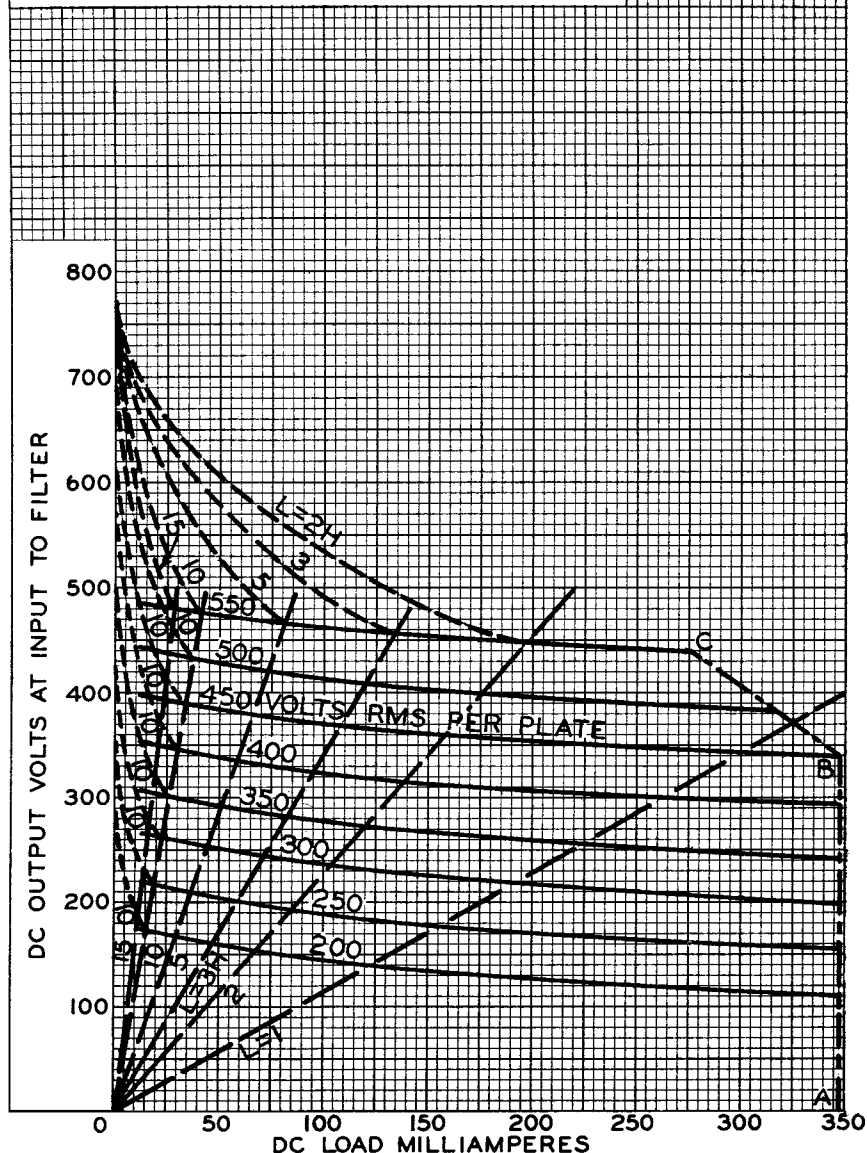
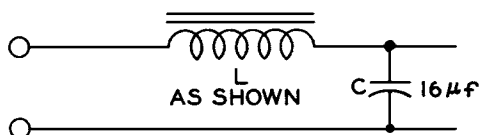
Harrison, N. J.

DATA 3
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OPERATION CHARACTERISTICS Full-Wave Circuit, Choke-Input Filter

$E_f = 5$ VOLTS AC
 SUPPLY FREQUENCY (CPS) = 60
 SOLID LINE CURVES = CHOKES OF INFINITE INDUCTANCE
 LONG-DASH LINES = BOUNDARY LINES FOR CHOKES SIZES AS SHOWN
 SHORT-DASH CURVES = REGULATION CURVES FOR REPRESENTATIVE CHOKES SIZES
 CURRENT- AND VOLTAGE-BOUNDARY LINE 'CBA' IS THE SAME AS SHOWN ON RATING CHART I



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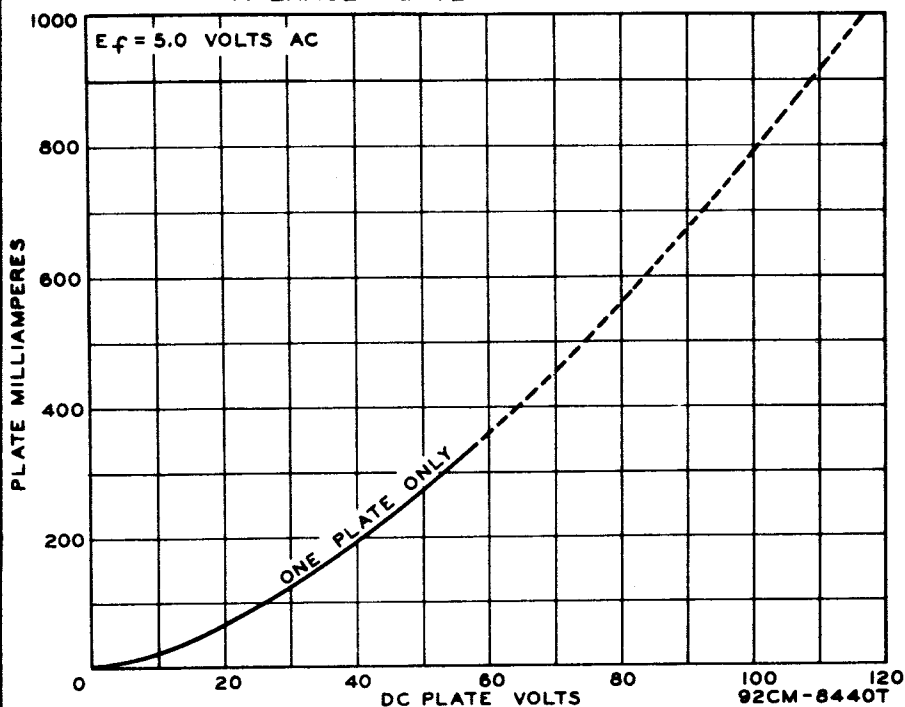
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FULL-WAVE VACUUM RECTIFIER

AVERAGE PLATE CHARACTERISTIC



NOV. 5, 1954

TUBE DIVISION
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

TENTATIVE DATA