



5R4-GY

FULL-WAVE VACUUM RECTIFIER

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GENERAL DATA

Electrical:

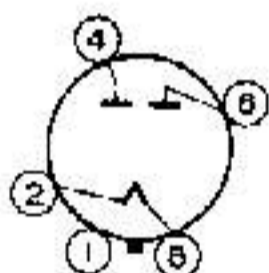
Filament, Coated:\*

Voltage. . . . . 5 . . . . . ac or dc volts
Current. . . . . 2 . . . . . amp

Mechanical:

Mounting Position. . . . . Vertical, or Horizontal with pins
1 and 4 in vertical plane
Maximum Overall length . . . . . 5-5/16"
Maximum Seated Length. . . . . 4-3/4"
Maximum Diameter . . . . . 2-1/16"
Bulb . . . . . ST-16
Base . . . . . Medium-Shell Octal 5 Pin, Micanol
Basing Designation for BOTTOM VIEW . . . . . G-5T

Pin 1 - No Connection
Pin 2 - Filament
Pin 4 - Plate No. 2



Pin 6 - Plate No. 1
Pin 8 - Filament

FULL-WAVE RECTIFIER

Maximum Ratings, Design-Center Values:

For Altitudes up to 40000 ft. For Altitudes up to 20000 ft.

Table with 4 columns: Parameter, Altitude 40000 ft., Altitude 20000 ft., Units. Rows include PEAK INVERSE PLATE VOLT., PEAK PLATE CURRENT PER PLATE, DC OUTPUT CURRENT (with capacitor and choke input).

Typical Operation with Capacitor-Input Filter:

For Altitudes up to 40000 ft. For Altitudes up to 20000 ft.

Table with 4 columns: AC Plate-to-Plate Supply Voltage (RMS) Full Load, No Load, Filter Input Capacitor, Altitude 40000 ft., Altitude 20000 ft., Units.

\* See curve for conditions necessitating delay in application of plate voltage until filament has reached operating temperature.

0, #; See next page.

← Indicates a change.

SEPT. 30, 1948

TUBE DEPARTMENT RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

DATA

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## FULL-WAVE VACUUM RECTIFIER

For Altitudes  
up to 40000 ft.

For Altitudes  
up to 20000 ft.

Total Effect. Plate-Supply Impedance per Plate <sup>▲</sup> . . .	125 . . .	500 . . .	575 . . .	ohms
DC Output Current . . .	250 . . .	150 . . .	150 . . .	ma
DC Output Volt. at Input to Filter:				
At Half Load . . .	790* . . .	900* . . .	1060* . . .	volts
At Full Load . . .	700* . . .	810* . . .	950* . . .	volts
Voltage Regulation, Half-Load to Full-Load Current . . .	90* . . .	90* . . .	110* . . .	volts

## → Typical Operation with Choke-Input Filter:

For Altitudes  
up to 40000 ft.

For Altitudes  
up to 20000 ft.

AC Plate-to-Plate Supply Voltage (RMS):				
Full Load . . . . .	1500		1900 . . .	volts
No Load . . . . .	1700		2000 . . .	volts
Filter Input Choke . . . . .	5		10 . . .	henries
DC Output Current . . . . .	250		175 . . .	ma
DC Output Voltage at Input to Filter:				
At Half Load . . . . .	590*		810* . . .	volts
At Full Load . . . . .	550*		750* . . .	volts
Voltage Regulation, Half-Load to Full-Load Current . . . . .	40*		60* . . .	volts

○ For choke not less than 5 henries.

● For choke not less than 10 henries.

▲ Indicated values for conditions shown will limit peak plate current to max. rated value. When a filter-input capacitor larger than  $\frac{1}{2}$   $\mu$ f is used, it may be necessary to use more plate-supply impedance than the value shown to limit the peak plate current to the rated value.

\* values are approximate.

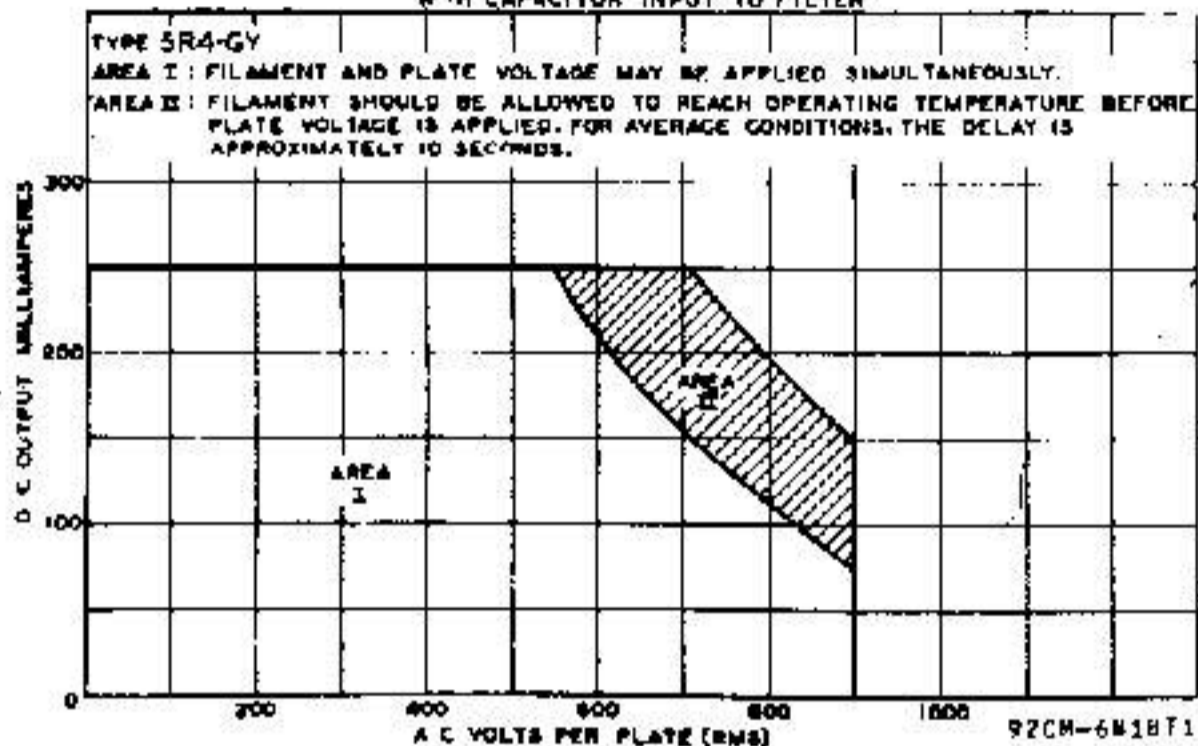


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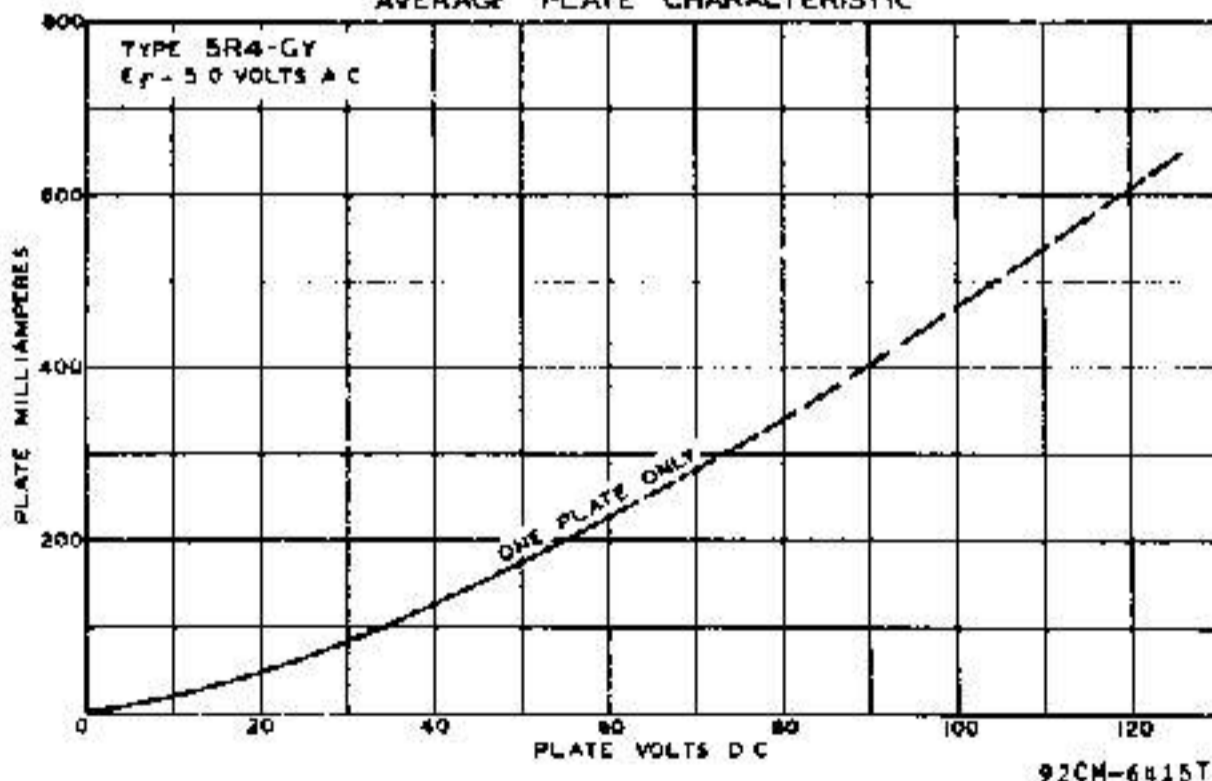
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OPERATION CHARACTERISTICS  
WITH CAPACITOR INPUT TO FILTER



AVERAGE PLATE CHARACTERISTIC



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SR4-GY



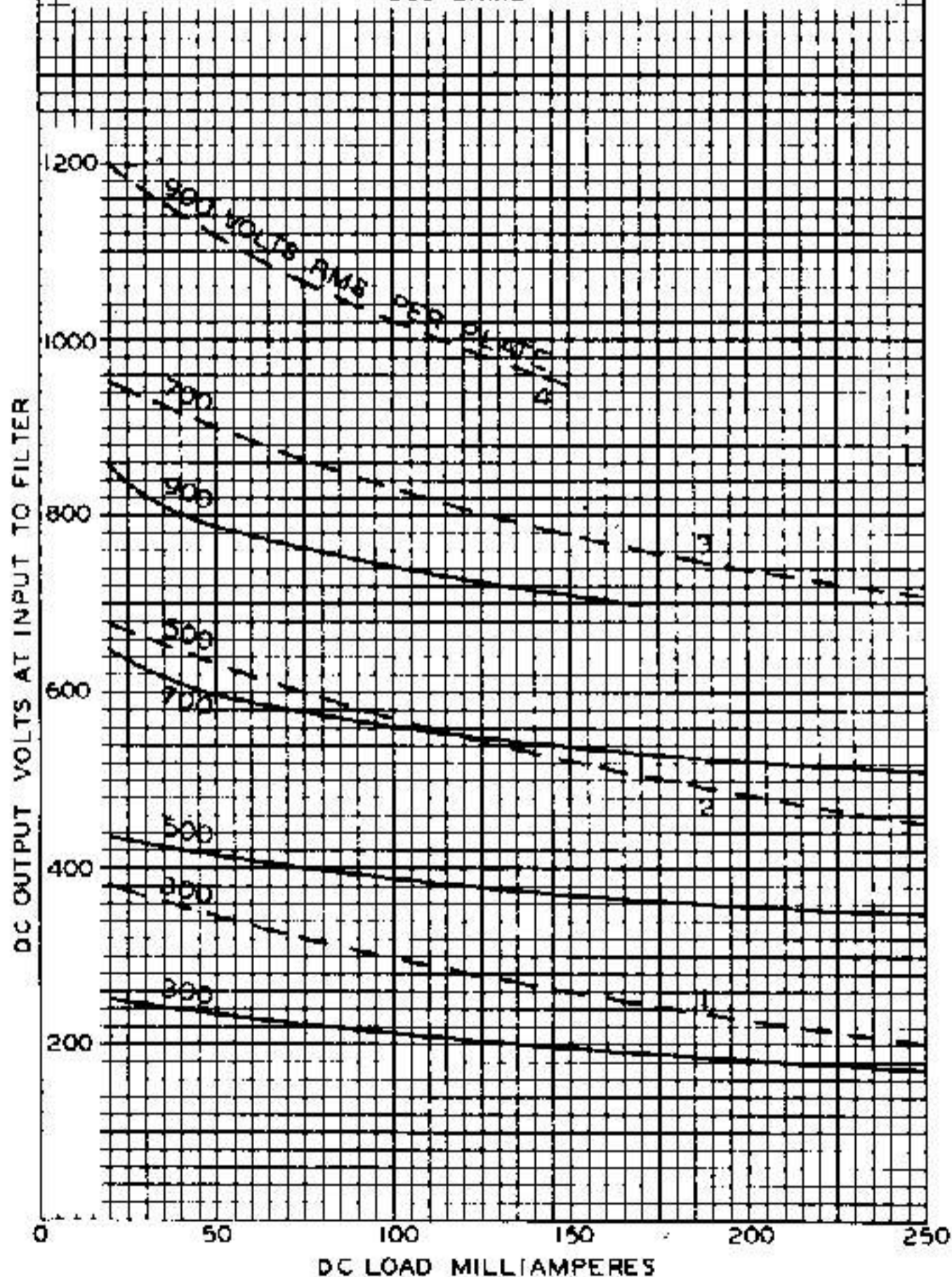
SR4-GY

OPERATION CHARACTERISTICS

$E_f = 5.0$  VOLTS AC

———— CHOKE (L) INPUT TO FILTER:  
L = 10 HENRIES (M'N.)

- - - - CAPACITOR (C) INPUT TO FILTER:  
C = 4  $\mu$ F; TOTAL EFFECT. PLATE-SUPPLY  
IMPEDANCE PER PLATE FOR CURVES  
1, 2 & 3 IS 100 OHMS; FOR CURVE 4,  
500 OHMS.



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