



5V4-GA

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FULL-WAVE VACUUM RECTIFIER

For use in full-wave power supplies having high dc requirements

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

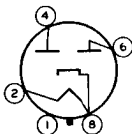
Voltage	5	ac or dc volts
Current	2	amp

Mechanical:

Operating Position	Any
Maximum Overall Length	3-7/8"
Maximum Seated Length	3-5/16"
Maximum Diameter	1-9/16"
Bulb	T12
Base	Medium-Shell Octal 5-Pin (JEDEC No. B5-15), or Short Medium-Shell Octal 5-Pin with External Barriers, Style B, Arrangement 1 (JEDEC No. B5-121)

Basing Designation for BOTTOM VIEW 5L

Pin 1 - No Connection
Pin 2 - Heater
Pin 4 - Plate of Unit No. 2



Pin 6 - Plate of Unit No. 1
Pin 8 - Heater, Cathode

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Maximum Ratings, Design-Center Values:

PEAK INVERSE PLATE VOLTAGE	1400 max.	volts
AC PLATE-SUPPLY VOLTAGE PER PLATE (RMS):		
With capacitor-input filter	375 max.	volts
With choke-input filter	500 max.	volts
PEAK PLATE CURRENT PER PLATE	525 max.	ma
DC OUTPUT CURRENT	175 max.	ma

HOT-SWITCHING TRANSIENT PLATE CURRENT PER PLATE:

Even occasional hot-switching with capacitor-input circuits permits the flow of plate current having magnitudes which can adversely affect the life and reliability of tubes. If capacitor-input circuits are to be used, protect the circuits against the possibility of hot-switching and do not exceed a maximum peak current value per plate of 3.5 amperes during the initial cycles of the hot-switching transient. If hot-switching is required in operation, the use of choke-input circuits is recommended. Such circuits limit the hot-switching current to a value no higher than that of the peak plate current.

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Typical Operation:

With capacitor input to filter

AC Plate-to-Plate Supply Voltage (RMS)	750	volts
Filter-Input Capacitor*	10	μ f
Total Effective Plate-Supply Impedance		
Per Plate	100	ohms
DC Output Voltage at Input to Filter (Approx.) for dc output current of 175 ma.	410	volts

With choke input to filter

AC Plate-to-Plate Supply Voltage (RMS)	1000	volts
Filter-Input Choke	4	henries
DC Output Voltage at Input to Filter (Approx.) for dc output current of 175 ma.	410	volts

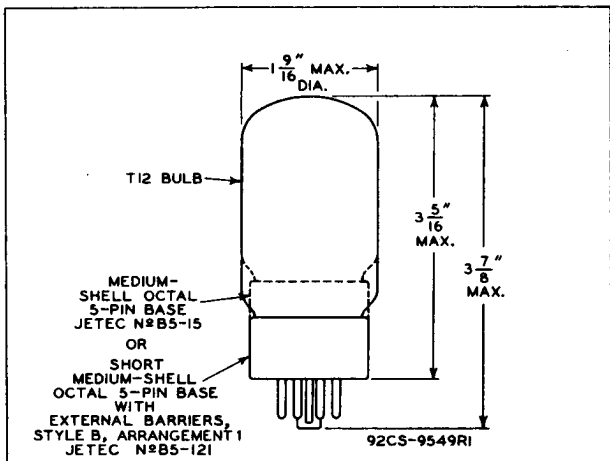
* Higher values of capacitance than indicated may be used, but the effective plate-supply impedance should be increased to prevent exceeding the maximum rating for peak plate current.



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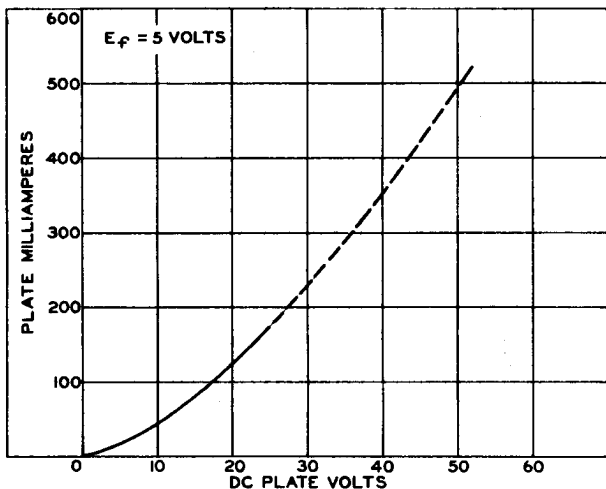
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CE-9549R1

AVERAGE PLATE CHARACTERISTIC EACH UNIT



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OPERATION CHARACTERISTICS FULL-WAVE RECTIFIER CIRCUIT

$E_f = 5$ VOLTS
 SUPPLY FREQUENCY = 60 CPS
 CHOKE (L) INPUT TO FILTER:
 $L = 4$ HENRIES (MINIMUM)
 CAPACITOR (C) INPUT TO FILTER:
 TOTAL EFFECTIVE PLATE-SUPPLY
 IMPEDANCE PER PLATE = 100 OHMS

