

Refer to type 6LJ8.

5LJ8

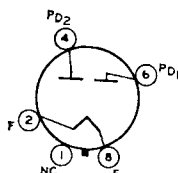
Refer to type 6MB8.

5MB8

For replacement use type 5J6.

5MHH3

Refer to type 6MQ8.

5MQ8**5T****FULL-WAVE
VACUUM RECTIFIER****5R4GB**
INDUSTRIAL
TYPE

Glass octal type for industrial and military applications. Outlines section, 19D; requires octal socket.

Filament Voltage (ac/dc)	5	volts
Filament Current	2	amperes
Operating Position	Vertical, base down or up, or Horizontal with pins 2 and 4 in vertical plane	

Full-Wave Rectifier**MAXIMUM RATINGS** (Absolute-Maximum Values)

For altitudes up to	40000	20000	feet
Peak Inverse Plate Voltage	2650	3100	volts
AC Plate Supply Voltage Per Plate (RMS, without load)	See Rating Chart		
Peak Plate Current Per Plate	715	715	mA
DC Output Current Per Plate	See Rating Chart		
Hot-Switching Transient Plate Current Per Plate	*	*	
Bulb Temperature (At hottest point on bulb surface)	230	230	°C

TYPICAL OPERATION (With Capacitor-Input Filter)

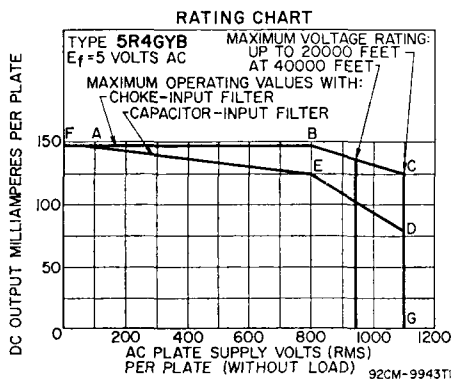
For altitudes up to	40000	20000	feet
AC Plate-to-Plate Supply Voltage (RMS, without load)	1400	1500	volts
Filter-Input Capacitor	20	20	μ F
Total Effective Plate Supply Impedance Per Plate**	225	250	ohms
DC Output Voltage at Input to Filter (approx.):			
At half-load current of			
75 mA	—	910	volts
125 mA	750	—	volts
150 mA	—	800	volts
250 mA	605	—	volts
Voltage Regulation (approx.):			
Half-load to full-load current	145	110	volts
DC Output Current	250	150	mA

TYPICAL OPERATION (With Choke-Input Filter)

For altitudes up to	40000	20000	feet
AC Plate-to-Plate Supply Voltage (RMS, without load)	1500	1900	volts
Filter-Input Choke	5	10	henries
DC Output Voltage at Input to Filter for dc output (approx.):			
87.5 mA	—	800	volts
125 mA	600	—	volts
175 mA	—	760	volts
250 mA	560	—	volts
Voltage Regulation (Approx.):			
Half-load to full-load current	40	40	volts
DC Output Current	250	175	mA

* If hot-switching is required in operation, choke-input circuits are recommended. Such circuits limit the hot-switching current to a value no higher than that of the peak plate current. When capacitor-input circuits are used, a maximum value of 3 amperes should not be exceeded.

** Indicated values for conditions shown will limit peak plate current to the maximum-rated value. When a filter-input capacitor larger than 20 μ F is used, it may be necessary to increase plate-supply impedance to a higher value than that shown in the data to limit the peak plate current to the maximum-rated value.



5R4GY 5R4GYB

For replacement use type 5R4GB.

5T4

Refer to chart at end of section.

5T8

Refer to type 6T8A.

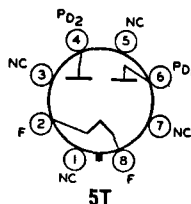
5U4G

Refer to chart at end of section.

5U4GB

FULL-WAVE VACUUM RECTIFIER

Glass octal type used in power supplies of radio and color and black-and-white television receivers having high dc requirements. Outlines section, 19E; requires octal socket. This type may be supplied with pins 3, 5, and 7 omitted. Vertical mounting is preferred, but horizontal mounting is permissible if pins 2 and 4 are in vertical plane. The coated filament is designed to operate from the ac line through a step-down transformer. The voltage at the filament terminals should be 5 volts at an average line voltage of 117 volts. It is especially important that this tube, like other power-handling tubes, be adequately ventilated. For discussion of Rating Chart and Operation Characteristics, refer to Interpretation of Tube Data. Filament: volts (ac), 5; amperes, 3.



Full-Wave Rectifier

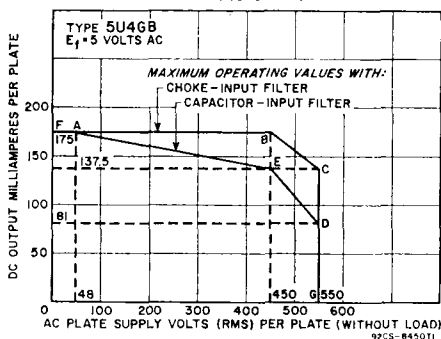
MAXIMUM RATINGS (Design-Maximum Values)

Peak Inverse Plate Voltage	1550	volts
Peak Plate Current (Per Plate)	1	ampere
Hot-Switching Transient Plate Current (Per Plate)	#	
AC Plate Supply Voltage (Per Plate, rms)	See Rating Chart	
Average Output Current (Per Plate)	See Rating Chart	

TYPICAL OPERATION WITH CAPACITOR INPUT TO FILTER

AC Plate-to-Plate Supply Voltage (rms)	600	900	1100	volts
Filter-Input Capacitor*	40	40	40	μ F
Total Effective Plate-Supply Impedance per Plate	21	67	97	ohms
DC Output Voltage at Input to Filter (Approx.):				
At full-load current of	150 mA	335	—	volts
	137.5 mA	—	520	volts
	81 mA	—	680	volts
	300 mA	290	—	volts
At half-load current of	275 mA	460	—	volts
	162 mA	—	630	volts
Voltage Regulation (Approx.):				
Half-load to full-load current	45	60	50	volts

RATING CHART



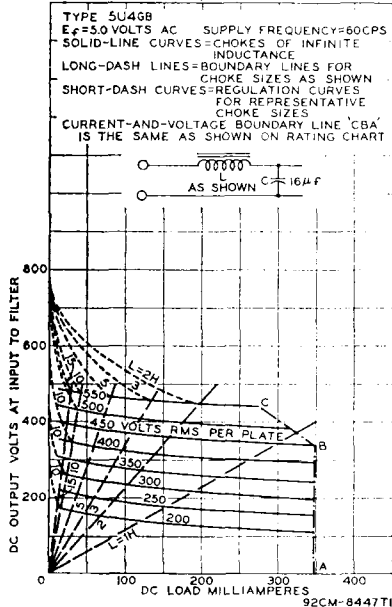
TYPICAL OPERATION WITH CHOKE INPUT TO FILTER

AC Plate-to-Plate Supply Voltage (rms)	900	1100	volts
Filter-Input Choke	10	10	henries
DC Output Voltage at Input to Filter (Approx.):			
At half-load current of { 174 mA	355	—	volts
137.5 mA	—	455	volts
At full-load current of { 348 mA	340	—	volts
275 mA	—	440	volts
Voltage Regulation (Approx.):			
Half-load to full-load current	15	15	volts

If hot switching is regularly 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. When capacitor-input circuits are used, a maximum peak current value per plate of 4.6 amperes during the initial cycles of the hot-switching transient should not be exceeded.

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

OPERATION CHARACTERISTICS
FULL-WAVE CIRCUIT, CHOKE INPUT TO FILTER



OPERATION CHARACTERISTICS
FULL-WAVE CIRCUIT, CAPACITOR INPUT TO FILTER

