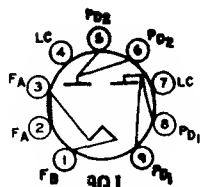


5BC3A

FULL-WAVE
VACUUM RECTIFIER

Novar types used in power supplies of radio equipment and television receivers having high dc requirements. Outlines section, 31C; requires novar 9-contact socket. Vertical operation is preferred, but tubes may be operated in horizontal position if pins 2 and 7 are in vertical plane. It is especially important that these tubes, like other power-handling tubes, be adequately ventilated. Filament: volts (ac), 5; amperes, 3.

Full-Wave Rectifier

MAXIMUM RATINGS (Design-Maximum Values)

Peak Inverse Plate Voltage	1700	volts
Peak Plate Current (Per Plate)	1	ampere
Hot-Switching Transient Plate Current (Per Plate)*	5	amperes
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 load current of: 300 mA	290	—	—	volts
275 mA	—	460	—	volts
162 mA	—	—	630	volts
150 mA	335	—	—	volts
137.5 mA	—	520	—	volts
81 mA	—	—	680	volts

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 load current of: 348 mA	340	—	volts
275 mA	—	440	volts
174 mA	355	—	volts
137.5 mA	—	445	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 5 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.

