

RCA Transmitting Tubes

RF POWER AMPLIFIER AND OSCILLATOR—Class C Telegraphy#

and

RF POWER AMPLIFIER—Class C FM Telephony

Maximum CCS Ratings:

DC PLATE VOLTAGE.....	4000 max	volts
DC GRID-NO.2 (SCREEN-GRID) VOLTAGE.....	500 max	volts
DC GRID-NO.1 (CONTROL-GRID) VOLTAGE.....	-500 max	volts
DC PLATE CURRENT.....	350 max	ma
GRID-NO.2 INPUT.....	30 max	watts
GRID-NO.1 INPUT.....	10 max	watts
PLATE DISSIPATION.....	500 max	watts

Typical Operation at 110 Mc:

DC Plate Voltage.....	2500	3000	4000	volts
DC Grid-No.2 Voltage.....	500	500	500	volts
DC Grid-No.1 Voltage.....	-150	-150	-150	volts
DC Plate Current.....	310	310	315	ma
DC Grid-No.2 Current.....	26	24	22	ma
DC Grid-No.1 Current.....	15	16	16	ma
Driving Power (Approx.).....	5	5	5	watts
Useful Power Output (Approx.).....	475	600	835	watts

Key-down conditions per tube without amplitude modulation. Amplitude modulation essentially negative may be used if the positive peak of the audio-frequency envelope does not exceed 115 per cent of the carrier conditions.

OPERATING CONSIDERATIONS

Type 4X500A may be mounted in vertical position only, base up or down. *OUTLINE 73, Outlines Section.*

Adequate forced-air cooling must be provided to limit the temperature of the metal-to-glass seals and the radiator core to 150°C. Forced-air cooling must start before filament voltage is applied, and must be continued until all voltages have been removed from the tube. A minimum air flow of 40 cubic feet per minute is required when the tube is operated at maximum CCS ratings.

BEAM POWER TUBE

See type 4E27A/5-125B.

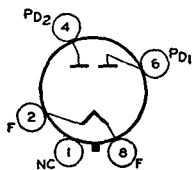
5-125B

BEAM POWER TUBE

See type 4-250A/5D22.

5D22

FULL-WAVE VACUUM RECTIFIER



Coated-filament type used in power supply of transmitting and industrial equipment. Rated for a maximum peak inverse plate voltage of 2800 volts and maximum peak plate current of

5R4-GY

650 milliamperes at altitudes up to 20,000 feet, it may be used at altitudes up to 40,000 feet with reduced plate voltages. Requires Octal socket and may be mounted in vertical position, base up or down, or in horizontal position with pins 1 and 4 in vertical plane. *OUTLINE 28, Outlines Section.*

FILAMENT VOLTAGE (AC/DC).....	5	volts
FILAMENT CURRENT.....	2	amperes
TUBE VOLTAGE DROP (Approx.):		
Measured with applied dc at 250 milliamperes per plate.....	67	volts

FULL-WAVE RECTIFIER

	For Altitudes up to 40000 Feet		For Altitudes up to 20000 Feet	
Maximum Ratings, Design-Center Values:				
PEAK INVERSE PLATE VOLTAGE (No load)...	2100 max	2400 max	2800 max	volts
PEAK PLATE CURRENT (Per plate).....	650 max	650 max	650 max	ma