

# RCA-808

## R-F Power Amplifier, Oscillator, Class B Modulator

RCA-808 is a three-electrode high- $\mu$ , transmitting tube of the thoriated-tungsten filament type for use as a radio-frequency amplifier, oscillator and class B audio-frequency amplifier. The plate connection is brought out through a separate seal at the top of the bulb; the grid connection is brought out through a separate seal in the lower part of the bulb near the filament base. This design insures good insulation and low inter-electrode capacitances. In r-f service, the 808 may be operated at maximum ratings at frequencies as high as 30 megacycles. The maximum plate dissipation is 50 watts for class C telegraph and class B services.

### CHARACTERISTICS

Filament Volts (a-c or d-c).....	7.5	Grid-Plate Capacitance .....	2.8 $\mu\text{f}$
Filament Amperes .....	4	Grid-Filament Capacitance .....	5.3 $\mu\text{f}$
Amplification Factor .....	47	Plate-Filament Capacitance .....	0.15 $\mu\text{f}$

### MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS

#### As A-F Power Amplifier and Modulator—Class B

D-C PLATE VOLTAGE .....	1500 max.	Volts
MAX-SIGNAL D-C PLATE CURRENT* .....	150 max.	Milliamperes
MAX-SIGNAL PLATE INPUT* .....	150 max.	Watts
PLATE DISSIPATION* .....	50 max.	Watts

#### TYPICAL OPERATION:

*Unless otherwise specified, values are for 2 tubes*

D-C Plate Voltage .....	1250	1500	Volts
D-C Grid Voltage <sup>†</sup> .....	-15	-25	Volts
Peak A-F Grid-to-Grid Voltage .....	240	220	Volts
Zero-Sig. D-C Plate Current .....	40	30	Milliamperes
Max-Sig. D-C Plate Current .....	230	190	Milliamperes
Load Resistance (Per tube) .....	3175	4575	Ohms
Effective Load Res. (Plate-to-plate) .....	12700	18300	Ohms
Max-Sig. Driving Power (Approx.) .....	7.8	4.8	Watts
Max-Sig. Power Output (Approx.) .....	190	185	Watts

#### As R-F Power Amplifier—Class B Telephony

*Carrier conditions per tube for use with a max. modulation factor of 1.0*

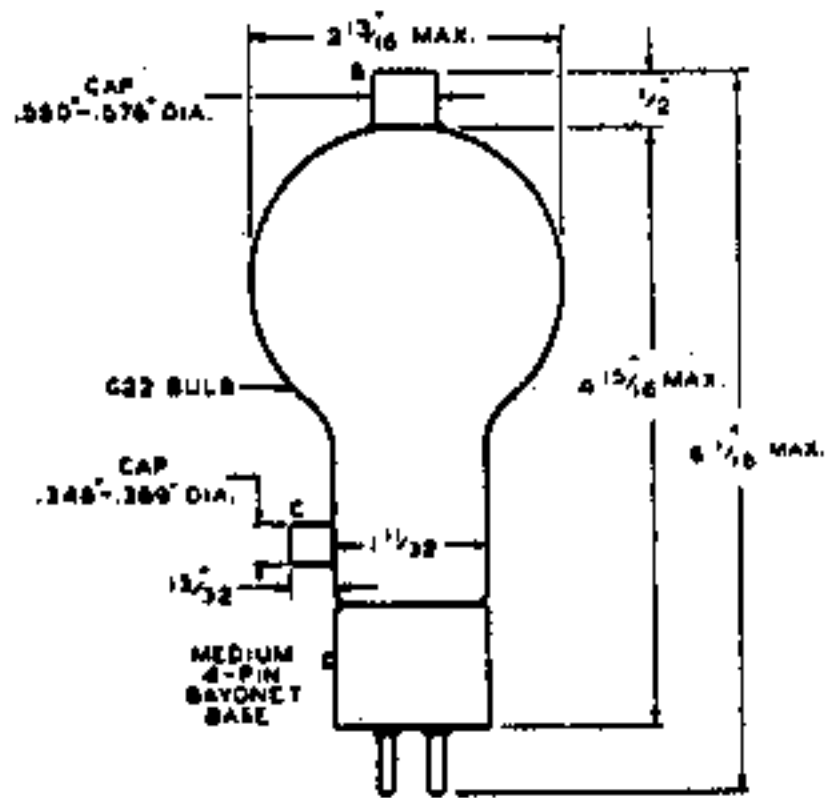
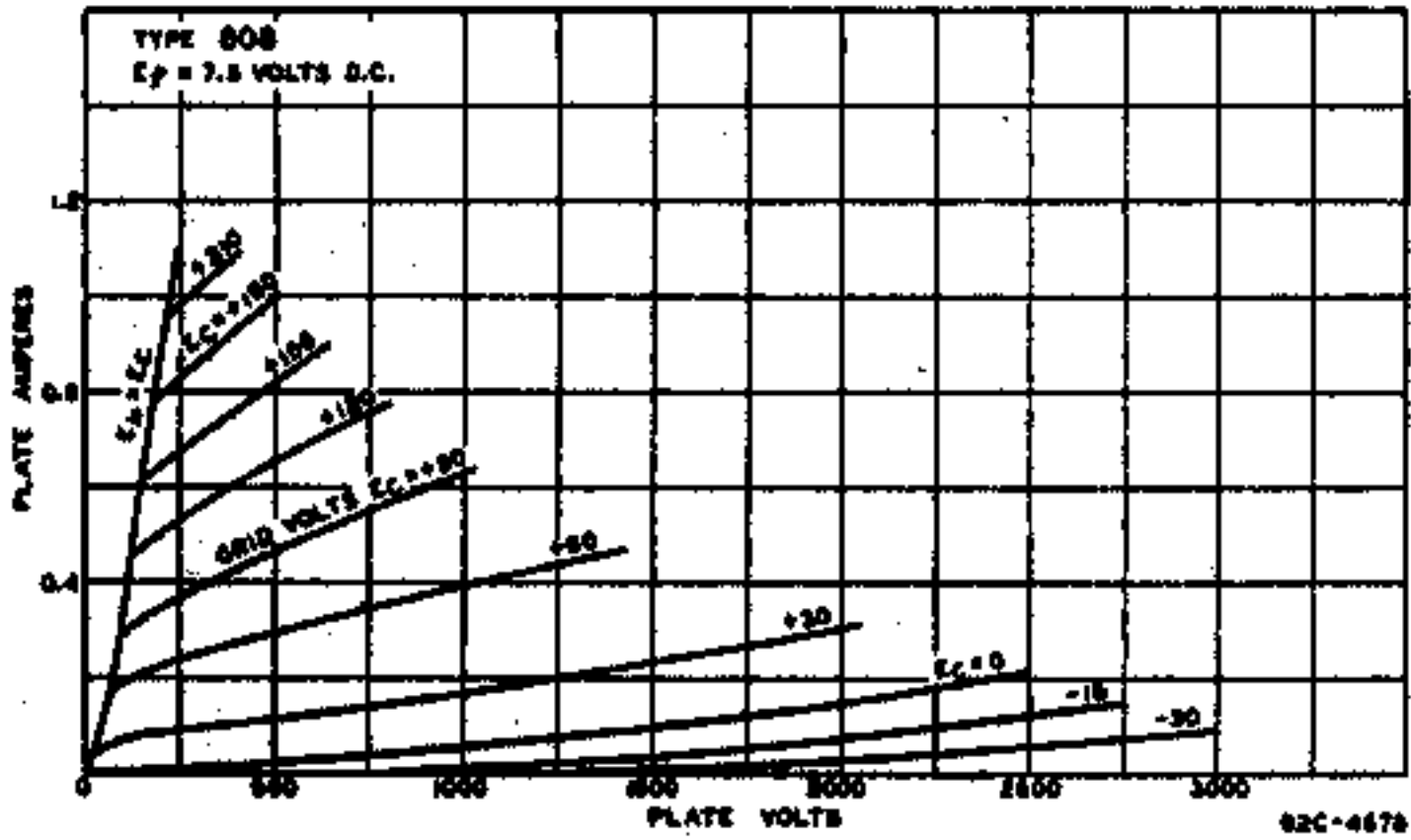
D-C PLATE VOLTAGE .....	1500 max.	Volts
D-C PLATE CURRENT .....	75 max.	Milliamperes
PLATE INPUT .....	75 max.	Watts
PLATE DISSIPATION .....	50 max.	Watts

#### TYPICAL OPERATION:

D-C Plate Voltage .....	1250	1500	Volts
D-C Grid Voltage <sup>†</sup> .....	-30	-35	Volts
Peak R-F Grid Voltage .....	65	60	Volts
D-C Plate Current .....	55	45	Milliamperes
D-C Grid Current (Approx.) .....	1	1	Milliampere
Driving Power (Approx.) <sup>†</sup> .....	3	2	Watts
Power Output (Approx.) .....	22	22	Watts

\* , §, †: see next page.

### AVERAGE PLATE CHARACTERISTICS



### Top View of Socket Connections

