



## ELECTRONIC TUBE REFERENCE

# 808

Power - Triode electronic tube

CONSOLIDATED TECHNICAL DATA

**1 SECTION**

CONSTRUCTION

**TRIODE**

Transmitting power triode intended for RF amplifier and oscillator service, with manufacturer ratings emphasizing radio-frequency output, substantial plate loading, and professional transmitter operation.

## GENERAL CHARACTERISTICS

|                     |                   |                      |               |
|---------------------|-------------------|----------------------|---------------|
| BASE DESIGNATION    | —                 | BASE PINS            | 4             |
| NOMINAL HEATER      | 7.5 V / 4 A       | PARALLEL HEATER      | — / —         |
| HEATING             | Direct            | SERIES OPERATION     | Not specified |
| CATHODE ARRANGEMENT | Separate cathodes | SECTION CONSTRUCTION | Similar       |

## SECTION RATINGS

|                                                                 |        |
|-----------------------------------------------------------------|--------|
| <b>SECTION 1</b> Triode                                         |        |
| AMPLIFICATION FACTOR                                            | 47     |
| MAXIMUM PLATE VOLTAGE                                           | 1500 V |
| MAXIMUM PLATE DISSIPATION                                       | 50 W   |
| MAXIMUM CATHODE CURRENT                                         | 150 mA |
| <i>Published ratings and characteristics from source sheet.</i> |        |

Thoriated-tungsten power triode for RF power-amplifier and oscillator service, usable with full input to about 80 MHz.

## SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

# 1938 RCA Transmitting Tubes

Published test conditions and operating points. Values on this page are preserved as reported by this source.

## 1938 RCA TRANSMITTING TUBES

## Section 1 · Triode

| OTHER                                                 |                 |                                                                                  |
|-------------------------------------------------------|-----------------|----------------------------------------------------------------------------------|
| PARAMETER                                             | PUBLISHED VALUE | CONDITION / NOTE                                                                 |
| operated at maximum ratings at frequencies as high as | 30 MHz          | operated at maximum ratings at frequencies as high as 30 megacycles. The maximum |
| plate dissipation is                                  | 50 W            | plate dissipation is 50 watts for class C telegraph and class B services.        |
| D-C Plate Voltage .. 1250                             | 1500 V          | D-C Plate Voltage .. 1250 1500 Volts                                             |
| Effective Load Res. (Plate-to-plate) ... 12700        | 18300 $\Omega$  | Effective Load Res. (Plate-to-plate) ... 12700 18300 Ohms                        |
| D-C Plate Current                                     | 75 mA           | D-C Plate Current.... ---- 75 max. Milliamperes                                  |
| Plate Input                                           | 75 W            | Plate Input.. 75 Watts                                                           |
| Plate Dissipation                                     | 50 W            | Plate Dissipation -- 50 max. Watts                                               |
| D-C Plate Voltage. . 1250                             | 1500 V          | D-C Plate Voltage. . 1250 1500 Volts                                             |
| Peak R-F Grid Voltage .. . 65                         | 60 V            | Peak R-F Grid Voltage .. . 65 60 Volts                                           |
| D-C Plate Current... . 55                             | 45 mA           | D-C Plate Current... . 55 45 Milliamperes                                        |
| D-C Grid Current (Approx.) ... . 1                    | 1 mA            | D-C Grid Current (Approx.) ... . 1 1 Milliampere                                 |
| D-C Plate Voltage                                     | 1250 V          | D-C Plate Voltage . 1250 max. Volts                                              |
| D-C Grid Voltage                                      | -400 V          | D-C Grid Voltage . -400 max. Volts                                               |
| D-C Plate Current                                     | 125 mA          | D-C Plate Current. 125 max. Milliamperes                                         |
| D-C Grid Current                                      | 35 mA           | D-C Grid Current . .... 35 max. Milliamperes                                     |
| Plate Dissipation                                     | 35 W            | Plate Dissipation . 35 max. Watts                                                |
| D-C Plate Voltage . 1000                              | 1250 V          | D-C Plate Voltage . 1000 1250 Volts                                              |
| Peak R-F Grid Voltage . 360                           | 360 V           | Peak R-F Grid Voltage . 360 360 Volts                                            |
| D-C Plate Current . 120                               | 100 mA          | D-C Plate Current . 120 100 Milliamperes                                         |

| PARAMETER                                                      | PUBLISHED VALUE | CONDITION / NOTE                                                                                      |
|----------------------------------------------------------------|-----------------|-------------------------------------------------------------------------------------------------------|
| D-C Grid Current (Approx.)<br>.. 35                            | 32 mA           | D-C Grid Current (Approx.) .. 35 32 Milliamperes                                                      |
| Driving Power (Approx.) .<br>11.5                              | 10.5 W          | Driving Power (Approx.) . 11.5 10.5 Watts                                                             |
| Power Output (Approx.) . 85                                    | 105 W           | Power Output (Approx.) . 85 105 Watts                                                                 |
| D-C Plato Voltage                                              | 1500 V          | D-C Plato Voltage .... 1500 max. Volts                                                                |
| D-C Grid Voltage                                               | -400 V          | D-C Grid Voltage.... -400 max. Volts                                                                  |
| D-C Plate Current                                              | 150 mA          | D-C Plate Current... 150 max. Milliamperes                                                            |
| D-C Grid Current                                               | 35 mA           | D-C Grid Current ..... 35 max. Milliamperes                                                           |
| Plate Dissipation                                              | 50 W            | Plate Dissipation .. 50 max. Watts                                                                    |
| D-C Plate Voltage. 1250                                        | 1500 V          | D-C Plate Voltage. 1250 1500 Volts                                                                    |
| Peak R-F Grid Voltage. 300                                     | 350 V           | Peak R-F Grid Voltage. 300 350 Volts                                                                  |
| D-C Plate Current . 135                                        | 125 mA          | D-C Plate Current . 135 125 Milliamperes                                                              |
| D-C Grid Current (Approx.)<br>.. 30                            | 30 mA           | D-C Grid Current (Approx.) .. 30 30 Milliamperes                                                      |
| Grid Resistor . 5000                                           | 6670 $\Omega$   | Grid Resistor . 5000 6670 Ohms                                                                        |
| Driving Power (Approx.) . 8                                    | 9.5 W           | Driving Power (Approx.) . 8 9.5 Watts                                                                 |
| Power Output (Approx.) . 120                                   | 140 W           | Power Output (Approx.) . 120 140 Watts                                                                |
| each stated value of grid<br>voltage should be decreased<br>by | 5 V             | each stated value of grid voltage should be decreased by 5 volts and ttie circuit returns made to the |
| when the 808 is operated at<br>a plate voltage of              | 1000 V          | when the 808 is operated at a plate voltage of 1000 volts or less. If the grid                        |
| For high-frequency operation<br>above                          | 30 MHz          | For high-frequency operation above 30 megacycles, see page 144.                                       |



SOURCE DATA APPENDIX

## SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

# 1956 RCA Transmitting Tubes

Published test conditions and operating points. Values on this page are preserved as reported by this source.

## 1956 RCA TRANSMITTING TUBES

| CHARACTERISTIC       |                 |                  |
|----------------------|-----------------|------------------|
| PARAMETER            | PUBLISHED VALUE | CONDITION / NOTE |
| Amplification Factor | 47              | —                |

| OTHER                                  |                 |                                |
|----------------------------------------|-----------------|--------------------------------|
| PARAMETER                              | PUBLISHED VALUE | CONDITION / NOTE               |
| Maximum Plate Voltage                  | 2000 V          | —                              |
| Maximum Plate Dissipation              | 75 W            | —                              |
| Maximum Cathode Current                | 150 mA          | —                              |
| Full-Input Operating Frequency Maximum | 80 MHz          | —                              |
| Power Output                           | 225 W           | ClassC,RF                      |
| Typical Plate Voltage                  | 750 V           | Representative published point |
| Typical Plate Current                  | 100 mA          | Representative published point |

### TUBE TINKER

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