

# Beam Power Tube

## GENERAL DATA

### Electrical:

Heater Characteristics and Ratings (*Design-Maximum Values*):

Voltage (AC or DC) . . . . .  $6.3 \pm 0.6$  volts

Current at heater volts = 6.3 . . . . . 0.450 amp

Peak heater-cathode voltage:

Heater negative with respect to cathode . . . . . 200 max. volts

Heater positive with respect to cathode . . . . . 200<sup>A</sup> max. volts

Direct Interelectrode Capacitances (Approx.):<sup>b</sup>

Grid No.1 to plate . . . . . 0.7  $\mu\text{f}$

Grid No.1 to cathode & grid No.3,  
grid No.2, and heater . . . . . 9  $\mu\text{f}$

Plate to cathode & grid No.3,  
grid No.2, and heater . . . . . 7.5  $\mu\text{f}$

### Mechanical:

Operating Position . . . . . Any

Type of Cathode . . . . . Coated Unipotential

Maximum Overall Length . . . . . 3-5/16"

Maximum Seated Length . . . . . 2-3/4"

Maximum Diameter . . . . . 1-9/32"

Dimensional Outline . . . . . See *General Section*

Bulb . . . . . T9

Bases (Alternates):

Intermediate-Shell Octal:

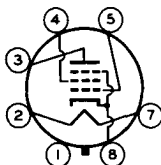
7-Pin, Arrangement 1 (JEDEC Group 1, No.B7-7)

Short Intermediate-Shell Octal with External Barriers:

7-Pin, Arrangement 1 (JEDEC Group 1, No.B7-59)

Basing Designation for BOTTOM VIEW . . . . . 7S

Pin 1—No Internal  
Connection  
Pin 2—Heater  
Pin 3—Plate  
Pin 4—Grid No.2



Pin 5—Grid No.1  
Pin 7—Heater  
Pin 8—Cathode,  
Grid No.3

## AF POWER AMPLIFIER — Class A<sub>1</sub>

Maximum Ratings, *Design-Maximum Values*:

PLATE VOLTAGE . . . . . 350 max. volts

GRID-No.2 (SCREEN-GRID) VOLTAGE . . . . . 315 max. volts

GRID-No.2 INPUT . . . . . 2.2 max. watts

PLATE DISSIPATION . . . . . 14 max. watts

Typical Operation and Characteristics:

Plate Voltage . . . . . 60 250 volts

Grid-No.2 Voltage . . . . . 250 250 volts

Grid-No.1 (Control-Grid) Voltage . . . . . 0 -12.5 volts

Peak AF Grid-No.1 Voltage . . . . . - 12.5 volts



|                                         |                  |       |            |
|-----------------------------------------|------------------|-------|------------|
| Zero-Signal Plate Current . . . . .     | 100 <sup>c</sup> | 45    | ma         |
| Max.-Signal Plate Current . . . . .     | -                | 47    | ma         |
| Zero-Signal Grid-No.2 Current . . . . . | 22 <sup>c</sup>  | 4.5   | ma         |
| Max.-Signal Grid-No.2 Current . . . . . | -                | 7     | ma         |
| Plate Resistance (Approx.) . . . . .    | -                | 50000 | ohms       |
| Transconductance . . . . .              | -                | 4100  | $\mu$ mhos |
| Load Resistance . . . . .               | -                | 5000  | ohms       |
| Total Harmonic Distortion . . . . .     | -                | 7     | %          |
| Max.-Signal Power Output . . . . .      | -                | 4.5   | watts      |

## Maximum Circuit Values:

Grid-No.1-Circuit Resistance:

|                                      |          |        |
|--------------------------------------|----------|--------|
| For fixed-bias operation . . . . .   | 0.1 max. | megohm |
| For cathode-bias operation . . . . . | 0.5 max. | megohm |

<sup>a</sup> The dc component must not exceed 100 volts.

<sup>b</sup> Without external shield.

<sup>c</sup> This value can be measured by a method involving a recurrent wave form such that the maximum ratings of the tube will not be exceeded.

