

# Beam Power Tube

## GENERAL DATA

### Electrical:

Heater Characteristics and Ratings ( <i>Design-Maximum Values</i> ):		
Voltage (AC or DC) . . . . .	6.3 ± 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	μf
Grid No.1 to cathode & grid No.3, grid No.2, and heater . . . . .	9	μf
Plate to cathode & grid No.3, grid No.2, and heater . . . . .	7.5	μf

### 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 <i>General Section</i>
Bulb . . . . .	T9

### Bases (Alternates):

Intermediate-Shell Octal:

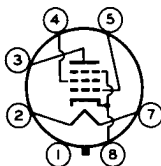
7-Pin, Arrangement 1 (JEDEC Group 1, No.B7-7)

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



# 7408

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.

