

**Sharp-Cutoff Pentode****7-PIN MINIATURE TYPE****GENERAL DATA****Electrical:****Heater Characteristics and Ratings:**

Voltage (AC or DC) . . . . .	20.0	$\pm 1.0$	volts
Current at heater volts = 20.0 . . . . .	0.050		amp
Peak heater-cathode voltage:			
Heater negative with respect to cathode. . . . .	100	max.	volts
Heater positive with respect to cathode. . . . .	100	max.	volts
Direct Interelectrode Capacitances: <sup>a</sup>			
Grid No.1 to plate. . . . .	0.01		pf
Grid No.1 to cathode & grid No.3 & internal shield, grid No.2, and heater. . . . .	4.0		pf
Plate to cathode & grid No.3 & internal shield, grid No.2, and heater. . . . .	2.8		pf

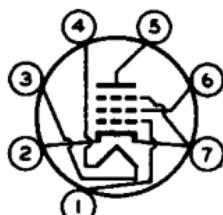
**Characteristics, Class A, Amplifier:**

Plate Supply Voltage. . . . .	120	volts
Grid-No.2 Supply Voltage. . . . .	120	volts
Cathode Resistor <sup>b</sup> . . . . .	200	ohms
Plate Resistance (Approx.). . . . .	0.34	megohm
Transconductance. . . . .	5000	$\mu$ hos
Plate Current . . . . .	7	ma
Grid-No.2 Current . . . . .	2.2	ma
Grid-No.1 Voltage for maximum plate $\mu$ a = 200. . . . .	-10	volts

**Mechanical:**

Operating Position. . . . .	Any
Type of Cathode . . . . .	Coated Unipotential
Maximum Overall Length. . . . .	1-3/4"
Maximum Seated Length . . . . .	1-1/2"
Length, Base Seat to Bulb Top (Excluding tip). . . . .	1-1/8" $\pm$ 3/32"
Diameter. . . . .	0.650" to 0.750"
Dimensional Outline . . . . .	See General Section
Bulb. . . . .	T6-1/2
Base. . . . .	Small-Button Miniature 7-Pin (JEDEC No.E7-1)
Basing Designation for BOTTOM VIEW. . . . .	7BD

- Pin 1-Grid No.1
- Pin 2-Cathode,  
    Grid No.3
- Pin 3-Heater
- Pin 4-Heater



- Pin 5-Plate
- Pin 6-Grid No.2
- Pin 7-Cathode,  
    Grid No.3



408A

**AMPLIFIER — Class A**

### **Maximum Ratings, Absolute-Maximum Values:**

PLATE VOLTAGE . . . . . 180 max. volts

GRID-NO.2 (SCREEN-GRID) SUPPLY VOLTAGE. . . 180 max. volts

GRID-No.2 VOLTAGE . . . . . See Grid-No.2 Input Rating Chart at front of Receiving Tube Section

**GRID-No.1 (CONTROL-GRID) VOLTAGE:**

Positive-bias value . . . . . 0 max. volts

**GRID-No. 2 INPUT:**

For grid-No.2 voltages

For grid-No.2 voltages be-

See Grid-No.2 Input Rating Chart at front of Receiving Tube Section

PLATE DISSIPATION . . . . . 1.7 max. watts

\* With external shield JEDEC No.316 connected to cathode.

**b** Fixed-bias operation is not recommended.

