



12EA6

SHARP-CUTOFF PENTODE

7-PIN MINIATURE TYPE

For use in automobile radio receivers operating directly from 6-cell storage-battery systems

12EA6

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage range (DC) 10 to 15.9 volts
This voltage range is on an absolute basis. For longest life, it is recommended that the heater be operated within the voltage range of 11 to 14 volts.

Current (Approx.) at 12.6 volts 0.19 amp

Direct Interelectrode Capacitances:⁰

Grid No.1 to plate 0.04 max. $\mu\mu\text{f}$

Grid No.1 to cathode, grid No.3 & internal shield, grid No.2, and heater 11 $\mu\mu\text{f}$

Plate to cathode, grid No.3 & internal shield, grid No.2, and heater 4 $\mu\mu\text{f}$

Characteristics, Class A₁ Amplifier:

Heater Voltage 12.6 volts

Plate Voltage 12.6 volts

Grid-No.3 Voltage 0 volts

Grid-No.2 Voltage 12.6 volts

Grid-No.1 Resistor (Bypassed) 10 megohms

Plate Resistance (Approx.) 32000 ohms

Transconductance 3800 μmhos

Plate Current 3.2 ma

Grid-No.2 Current 1.4 ma

Grid-No.1 Voltage (Approx.) for plate $\mu\text{a} = 10$ -3.4 volts

Mechanical:

Operating Position Any

Maximum Overall Length 2-1/8"

Maximum Seated Length 1-7/8"

Length, Base Seat to Bulb Top (Excluding tip) 1-1/2" $\pm 3/32$ "

Diameter 0.650" to 0.750"

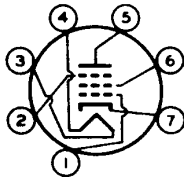
Dimensional Outline See General Section

Bulb T5-1/2

Base Small-Button Miniature 7-Pin (JEDEC No. E7-1)

Basing Designation for BOTTOM VIEW 7BK

Pin 1 - Grid No.1
Pin 2 - Grid No.3,
Internal
Shield
Pin 3 - Heater



Pin 4 - Heater
Pin 5 - Plate
Pin 6 - Grid No.2
Pin 7 - Cathode

⁰ Without external shield.

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AMPLIFIER — Class A₁

Maximum Ratings, Design-Maximum Values:

PLATE VOLTAGE	16 max.	volts
GRID-No.2 (SCREEN-GRID) VOLTAGE	16 max.	volts
GRID-No.1 (CONTROL-GRID) VOLTAGE:		
Positive-bias value	0 max.	volts
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode	16 max.	volts
Heater positive with respect to cathode	16 max.	volts

Maximum Circuit Values:

Grid-No.1-Circuit Resistance	12 max.	megohms
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