



12EA6

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SHARP-CUTOFF PENTODE

7-PIN MINIATURE TYPE

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

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 with-
in the voltage range of 11 to 14 volts.*

Current (Approx.) at 12.6 volts 0.19 amp

Direct Interelectrode Capacitances:⁰Grid No.1 to plate. 0.04 max. μf

Grid No.1 to cathode, grid No.3 &
internal shield, grid No.2,
and heater. 11 μf

Plate to cathode, grid No.3 &
internal shield, grid No.2,
and heater. 4 μf

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

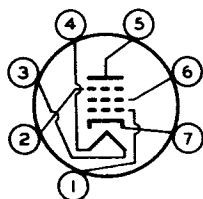
Pin 1-Grid No.1

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 A₁Maximum 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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