REMOTE-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

*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:
Grid No.1 to plate .................. 0.05 max. μf
Grid No.1 to cathode, grid No.3 & internal shield, grid No.2, and heater. 9.5 μf
Plate to cathode, grid No.3 & internal shield, grid No.2, and heater ........ 4 μf

**Characteristics, Class A, Amplifier:**
Heater Voltage ................ 12.6 volts
Plate Voltage .................. 12.6 volts
Grid No.3 and Internal Shield. (Connected to cathode at socket)
Grid-No.2 Voltage ........ 12.6 volts
Grid-No.1 Supply Voltage ........ 0 volts
Grid-No.1 Resistor (Bypassed) ................ 10 megs
Grid-No.3 Resistor (Bypassed) ................ 10 megs
Plate Resistance (Approx.) ........ 25000 ohms
Transconductance .................. 3800 μmos
Plate Current .................. 4.5 ma
Grid-No.2 Current ............. 2.2 ma
Grids No.1 and No.3 Supply Voltage
(Approx.) for transconductance, grid No.1 to plate (μmos) = 10 ........ -10 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" ± 3/32" Diameter .................. 0.650" to 0.750"
Dimensional Outline .................. See General Section
Bulb .................................. T5-1/2
Base ................................ Small-Button Miniature 7-Pin (JEDEK 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

Without external shield.
### AMPLIFIER — Class A

#### Maximum Ratings, Design-Maximum Values:

- **PLATE VOLTAGE**: 16 max. volts
- **GRID No.3 (SUPPRESSOR GRID)**: Connect to cathode at socket
- **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**: 10 max. megohms
- **Grid-No.3-Circuit Resistance**: 10 max. megohms
AVERAGE CHARACTERISTICS

$E_f = 12.6$ VOLTS
GRID N°3 AND INTERNAL SHIELD CONNECTED TO CATHODE AT SOCKET.
GRID N°2 VOLTS = 12.6

PLATE (I_b) OR GRID N°2 (I_c2) MILLIAMPERES

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AVERAGE CHARACTERISTICS

$E_F = 12.6$ VOLTS
PLATE VOLTS = 12.6
GRID N$\#3$ AND INTERNAL SHIELD CONNECTED TO CATHODE AT SOCKET.
GRID-N$\#2$ VOLTS = 12.6

TRANSMITTED VOLTAGE (g$\text{m}$) - MICROhmOS

GRID-N$\#1$ VOLTS

PLATE (I$\text{p}$) OR GRID-N$\#2$ (I$\text{c}$) MILLIAMPERES

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