Remote-Cutoff Pentode

7-PIN MINIATURE TYPE

GENERAL DATA

Electrical:
Heater, for Unipotential Cathode:
Voltage (AC or DC)............... 6.3 ± 10% volts
Current at 6.3 volts............... 0.3 amp
Direct Interelectrode Capacitances:

<table>
<thead>
<tr>
<th>Without External Shield</th>
<th>With External Shield</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grid No.1 to plate</td>
<td>0.0035 max.</td>
</tr>
<tr>
<td>Grid No.1 to cathode,</td>
<td>0.0035 max.</td>
</tr>
<tr>
<td>grid No.3 &amp; internal</td>
<td>μf</td>
</tr>
<tr>
<td>shield, grid No.2,</td>
<td>5.5</td>
</tr>
<tr>
<td>and heater...</td>
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<td>Plate to cathode, grid</td>
<td>μf</td>
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<tr>
<td>No.3 &amp; internal shield,</td>
<td>5</td>
</tr>
<tr>
<td>grid No.2, and heater...</td>
<td>5.5</td>
</tr>
</tbody>
</table>

Characteristics, Class A1 Amplifier:
Plate Supply Voltage......... 100 250 volts
Grid No.3................... Connected to cathode at socket
Grid-No.2 Supply Voltage... 100 100 volts
Cathode Resistor............ 68 68 ohms
Plate Resistance (Approx.) 0.25 1 megohm
Transconductance............ 4300 4400 μmhos
Plate Current............... 10.8 11 ma
Grid-No.2 Current........... 4.4 4.2 ma
Grid-No.1 Voltage (Approx.) for transconductance (μmhos) = 40...
                                          -20 -20 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 (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

→ indicates a change.
AMPLIFIER - Class A1

Maximum Ratings, Design-Maximum Values:

PLATE VOLTAGE: ........................................ 330 max. volts
GRID No.3 (SUPPRESSOR GRID) . . . Connect to cathode at socket
GRID-No.2 (SCREEN-GRID) SUPPLY
VOLTAGE: ........................................ 330 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:
    Negative-bias value: ............................. 55 max. volts
    Positive-bias value: ............................. 0 max. volts
GRID-No.2 INPUT:
    For grid-No.2 voltages up to
    165 volts: ...................................... 0.7 max. watt
    For grid-No.2 voltages between
    165 and 330 volts: ............................. See Grid-No.2 Input Rating
Chart at front of Receiving Tube Section
PLATE DISSIPATION: ........................................ 3.4 max. watts
PEAK HEATER-CATHODE VOLTAGE:
    Heater negative with respect to cathode. 200 max. volts
    Heater positive with respect to cathode. 200* max. volts

- With external shield JEDEC No.316 connected to cathode.
- The dc component must not exceed 100 volts.
AVERAGE CHARACTERISTICS
PENTODE CONNECTION

$E_I = 6.3 \text{ VOLTS} \quad \text{PLATE VOLTS} = 250$

GRID-NO. 3 VOLTS = 0
EC2 = GRID-NO. 2 VOLTS
ECC2 = GRID-NO. 2 SUPPLY VOLTS
AVERAGE CHARACTERISTICS
PENTODE CONNECTION

\[ E_T = 6.3 \text{ VOLTS} \]
\[ \text{PLATE VOLTS} = 250 \]
\[ \text{GRID-\#3 VOLTS} = 0 \]
\[ E_{C2} = \text{GRID-\#2 VOLTS} \]
\[ E_{CC2} = \text{GRID-\#2-SUPPLY VOLTS} \]