TUNG-SOL

PENTODE
MINIATURE TYPE

COATED UNIPOTENTIAL CATHODE

FOR AUDIO OUTPUT
STAGE APPLICATIONS
IN RADIO AND T.V.
RECEIVERS
ANY MOUNTING POSITION

GLASS BULB
MINIATURE BUTTON
7 PIN BASE E7-1
OUTLINE DRAWING
JEDEC 5-2

THE 6GZ5 IS A POWER PENTODE IN THE 7 PIN MINIATURE CONSTRUCTION. IT IS
INTENDED FOR USE IN THE AUDIO OUTPUT STAGE OF RADIO AND TELEVISION RE-
CEIVERS. ITS HEATER IS DESIGNED FOR TRANSFORMER OPERATION.

EXCEPT FOR HEATER CHARACTERISTICS, THE 6GZ5 IS IDENTICAL TO THE 4GZ5.

DIRECT INTERELECTRODE CAPACITANCES
WITHOUT EXTERNAL SHIELD

GRID #5 TO PLATE: GI TO P
INPUT: GI TO [H*K+G2]
OUTPUT: P TO [H*K+G2]

0.24 pf
8.5 pf
3.8 pf

HEATER CHARACTERISTICS AND RATINGS

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

AVERAGE CHARACTERISTICS
6.3 VOLTS
380 MA.

HEATER SUPPLY LIMITS:
VOLTAGE OPERATION
6.3±0.6 VOLTS

MAXIMUM HEATER–CATHODE VOLTAGE:
HEATER NEGATIVE WITH RESPECT TO CATHODE
TOTAL DC AND PEAK
200 VOLTS

HEATER POSITIVE WITH RESPECT TO CATHODE
DC
100 VOLTS
TOTAL DC AND PEAK
200 VOLTS

MAXIMUM RATINGS

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

PLATE VOLTAGE
300 VOLTS
GRID #2 VOLTAGE
300 VOLTS
POSITIVE DC GRID #1 VOLTAGE
0 VOLTS
PLATE DISSIPATION
4.8 WATTS
GRID #2 DISSIPATION - CONTINUOUS
1.1 WATTS
CATHODE CURRENT- AVERAGE
30 MA.
GRID #1 CIRCUIT RESISTANCE
.5 MEGOHM
FIXED BIAS
1.0 MEGOHM
SELF BIAS
200 °C

CONTINUED ON FOLLOWING PAGE
## TYPICAL OPERATING CHARACTERISTICS
### CLASS A1 AUDIO AMPLIFIER

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value 1</th>
<th>Value 2</th>
<th>Unit</th>
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<tbody>
<tr>
<td>Plate Supply Voltage</td>
<td>250</td>
<td>250</td>
<td>Volts</td>
</tr>
<tr>
<td>Grid #2 Supply Voltage</td>
<td>250</td>
<td>250</td>
<td>Volts</td>
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<tr>
<td>Cathode Resistor</td>
<td>270</td>
<td>270</td>
<td>Ohms</td>
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<tr>
<td>Bypassing</td>
<td>None</td>
<td>Condenser</td>
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<tr>
<td>Peak Audio Grid #1 Voltage</td>
<td>9.8</td>
<td>2.0</td>
<td>Volts</td>
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<tr>
<td>Zero Signal Plate Current</td>
<td>16</td>
<td>16</td>
<td>MA</td>
</tr>
<tr>
<td>Maximum Signal Plate Current</td>
<td>16</td>
<td>16</td>
<td>MA</td>
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<tr>
<td>Zero Signal Grid #2 Current</td>
<td>2.7</td>
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<td>MA</td>
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<tr>
<td>Maximum Signal Grid #2 Current</td>
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<td>5.0</td>
<td>MA</td>
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<tr>
<td>Transconductance</td>
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<td>8400</td>
<td>(\mu)Mhos</td>
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<tr>
<td>Plate Resistance (Approx.)</td>
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<td>0.15</td>
<td>Megohms</td>
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<tr>
<td>Load Resistance</td>
<td>15 000</td>
<td>15 000</td>
<td>Ohms</td>
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<tr>
<td>Total Harmonic Distortion</td>
<td>10</td>
<td>10</td>
<td>Percent</td>
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<tr>
<td>Power Output</td>
<td>1.8</td>
<td>1.1</td>
<td>Watts</td>
</tr>
</tbody>
</table>

### Graphs

1. **Graph 1:**
   - Graph showing plate current (I) vs. plate voltage (V) for different grid voltages (\(E_{C2}, E_{C4}\)).
   - \(E_{C2} = 250\) Volts
   - \(E_{C4} = 0\) Volts

2. **Graph 2:**
   - Graph showing grid #2 current (Ib) vs. plate current (I) for different plate voltages (V).
   - Various plate voltages marked: 0, 1.5, 2, 2.5, 3, 4, 5, 6, 7, 8, 9, 10 V.
   - \(E_{C2} = 250\) Volts
   - \(E_{C4} = 0\) Volts