R.F. PENTODE

Physical Specifications

Filament
Base
Bulb
Maximum overall length
Maximum seated height
Bulb length excluding tip
Maximum diameter
Mounting position
Basing connections - JETEC basing designation

Coated
Miniature button 7-pin
T5
2.205"
1.955"
1.580" ± 0.094"
3/4"
any
7DP

Pin 1 - filament (-)
grid No.3
internal shield

Bottom view of base

Pin 2 - plate
Pin 3 - grid No.2
Pin 4 - not connected
Pin 5 - filament (-)
grid No.3
internal shield
Pin 6 - grid No.1
Pin 7 - filament (+)

General Electrical Data

Filament voltage
Filament current

1.4 volts
25 m amps

Direct Interelectrode Capacitances

Grid No.1 to all other elements except plate
Plate to all other elements except grid No.1
Plate to grid No.1

3.3 μF
7.8 μF
max. 0.01 μF

4.4.1953
N.V. PHILIPS'GLOEILAMPENFABRIKEN, Eindhoven, Holland.
**Ratings** (Design center values)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery voltage</td>
<td>90 volts(^x)</td>
</tr>
<tr>
<td>Plate voltage</td>
<td>90 volts</td>
</tr>
<tr>
<td>Plate dissipation</td>
<td>0.25 watt</td>
</tr>
<tr>
<td>Grid No.2 voltage</td>
<td>90 volts</td>
</tr>
<tr>
<td>Grid No.2 dissipation</td>
<td>0.1 watt</td>
</tr>
<tr>
<td>Cathode current</td>
<td>2.2 m amps</td>
</tr>
<tr>
<td>Grid No.1 circuit resistance</td>
<td>3 megohms</td>
</tr>
<tr>
<td>Grid current starting point.</td>
<td></td>
</tr>
<tr>
<td>Grid No.1 voltage when grid No.1 current</td>
<td>+ 0.3 μamp</td>
</tr>
</tbody>
</table>

**Operating characteristics** for use as R.F. or I.F. amplifier

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plate voltage(^+)</td>
<td>85 64 64 volts</td>
</tr>
<tr>
<td>Grid No.2 series resistor</td>
<td>39000 0 ohms</td>
</tr>
<tr>
<td>Grid No.1 bias</td>
<td>0 -5.5 0 -4.1 volts</td>
</tr>
<tr>
<td>Grid No.2 voltage</td>
<td>64 85 64 64 volts</td>
</tr>
<tr>
<td>Plate current</td>
<td>1.65 - 1.65  m amps</td>
</tr>
<tr>
<td>Grid No.2 current</td>
<td>0.55 - 0.55  m amp</td>
</tr>
<tr>
<td>Transconductance</td>
<td>750 10 750 10 micromhos</td>
</tr>
<tr>
<td>Plate resistance</td>
<td>0.7 &gt;5 1.0 &gt;5 megohms</td>
</tr>
</tbody>
</table>

\(^x\) The absolute permissible maximum of the battery voltage is 110 volts

\(^+\) Based on a supply voltage of 90 or 67.5 volts reduced by the bias for the output tube.

N.V. PHILIPS' GLOEILAMPENFABRIEKEN, Eindhoven, Holland.
Plate voltage = 64 - 85 volts

Plate voltage = 85 volts
Battery voltage = 85 volts
Grid No2 series resistor = 39000 ohms

Plate voltage = 64 volts
Grid No2 voltage = 64 volts
Plate voltage = 85 volts
Battery voltage = 85 volts
Grid No2 series resistor = 39000 ohms

Grid No1 bias (volts)

Plate resistance (megohms)

Plate resistance

Plate current

Grid No2 current

Transconductance

Currents (micro-amps)

Transconductance (micromhos)