DESCRIPTION

The 5749 is a miniature remote-cut-off amplifier pentode intended for use as a radio-frequency or intermediate-frequency amplifier. This tube is designed for reliable life under conditions of intermittent operation.

TECHNICAL INFORMATION

GENERAL

Electrical Data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>With Shield</th>
<th>Without Shield</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cathode—Indirectly Heated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heater Voltage (A-c or D-c)</td>
<td>6.3 Volts</td>
<td></td>
</tr>
<tr>
<td>Heater Current</td>
<td>0.300 Ampere</td>
<td></td>
</tr>
<tr>
<td>Direct Interelectrode Capacitances</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grid to plate, maximum</td>
<td>0.0035</td>
<td>0.0035 uuf</td>
</tr>
<tr>
<td>Input</td>
<td>5.5</td>
<td>5.5 uuf</td>
</tr>
<tr>
<td>Output</td>
<td>5.5</td>
<td>5.0 uuf</td>
</tr>
</tbody>
</table>

Mechanical Data

Mounting position—any
Envelope—T-5½ glass
MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS

Maximum ratings, design center
- Plate voltage: 300 volts
- Screen voltage: 125 volts
- Screen supply voltage: 300 volts
- Positive grid—No. 1 bias voltage: 0 volts
- Negative grid—No. 1 bias voltage: 50 volts
- Plate dissipation: 3.0 watts
- Screen dissipation: 0.6 watts
- Heater-cathode voltage: 90 volts

Typical operation
- Class A1 amplifier
- Plate voltage: 100 volts
- Grid—No. 3 voltage: 0 volts
- Screen voltage: 100 volts
- Cathode bias resistor: 68 ohms
- Plate resistance, approximate: 0.25 megohms
- Transconductance: 4300 micromhos
- Plate current: 10.8 milliamperes
- Screen current: 4.4 milliamperes
- Grid—No. 1 voltage, $Gm = 40 \text{ umhos}$: $-20$ volts

*With external shield No. 316 connected to pin 7.

GL-5749
AVERAGE CHARACTERISTICS
PENTODE CONNECTION
$E_i = 6.3 \text{ VOLTS}, E_s = 250 \text{ VOLTS}$
$E_{gd} = \text{GRID NO. 2 VOLTAGE, } E_{g2} = 0 \text{ VOLTS}$
$E_{css} = \text{GRID NO. 2 SUPPLY VOLTAGE}$

<table>
<thead>
<tr>
<th>Grid—No. 1 Voltage in Volts</th>
<th>Grid—No. 2 Current in Milliamperes</th>
</tr>
</thead>
<tbody>
<tr>
<td>-28</td>
<td>2.0</td>
</tr>
<tr>
<td>-24</td>
<td>4.0</td>
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<tr>
<td>-20</td>
<td>6.0</td>
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<tr>
<td>-16</td>
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<tr>
<td>-12</td>
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<tr>
<td>-8</td>
<td></td>
</tr>
<tr>
<td>-4</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>
GL-5749
AVERAGE CHARACTERISTICS
PENTODE CONNECTION

$E_i = 6.3$ VOLTS, $E_e = 250$ VOLTS
$E_{gs} =$ GRID NO. 2 VOLTAGE, $E_{e2} = 0$ VOLTS
$E_{ne} =$ GRID NO. 2 SUPPLY VOLTAGE

GL-5749
AVERAGE PLATE CHARACTERISTICS
$E_i = 6.3$ VOLTS, $E_{e2} = 100$ VOLTS
$E_{ne} = 0$ VOLTS

GL-5749
AVERAGE PLATE CHARACTERISTICS
$E_i = 6.3$ VOLTS, $E_{e2} = 100$ VOLTS
$E_{ne} = 0$ VOLTS
GL-5749
AVERAGE CHARACTERISTICS
PENTODE CONNECTION

$E_j = 6.3$ VOLTS, $E_b = 250$ VOLTS
$E_{cl} =$ GRID NO. 2 VOLTAGE, $E_{cl} = 0$ VOLTS
$E_{grid} =$ GRID NO. 2 SUPPLY VOLTAGE

OUTLINE
GL-5749

BASING DIAGRAM

PIN 1: GRID NO.1
PIN 2: GRID NO.3 AND INTERNAL SHIELD
PIN 3: HEATER
PIN 4: HEATER
PIN 5: PLATE
PIN 6: GRID NO.2 (SCREEN)
PIN 7: CATHODE

Tube Department
GENERAL ELECTRIC
Schenectady, N. Y.