DESCRIPTION

The GL-5814 is a nine-pin miniature medium-mu tube with two triode sections with individual cathode connections. It is similar in electrical characteristics to the 12AU7 receiving tube. The GL-5814, however, incorporates distinctive mechanical design features, and increased heater current which provides a safety factor in cathode performance. These features combine to produce a sturdy shock-resistant tube and one which will give long life under conditions of intermittent operation.

TECHNICAL INFORMATION

GENERAL

Electrical Data

<table>
<thead>
<tr>
<th></th>
<th>Parallel</th>
<th>Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cathode—Coated Unipotential</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heater voltage</td>
<td>6.3</td>
<td>12.6 volts</td>
</tr>
<tr>
<td>Heater current</td>
<td>0.350</td>
<td>0.175 amperes</td>
</tr>
<tr>
<td>Direct interelectrode capacitances†</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grid to plate (section number 1)</td>
<td>1.5 uuf</td>
<td></td>
</tr>
<tr>
<td>Grid to plate (section number 2)</td>
<td>1.5 uuf</td>
<td></td>
</tr>
<tr>
<td>Input (section number 1)</td>
<td>1.6 uuf</td>
<td></td>
</tr>
<tr>
<td>Input (section number 2)</td>
<td>1.6 uuf</td>
<td></td>
</tr>
<tr>
<td>Output (section number 1)</td>
<td>0.50 uuf</td>
<td></td>
</tr>
<tr>
<td>Output (section number 2)</td>
<td>0.35 uuf</td>
<td></td>
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</table>
TECHNICAL INFORMATION (CONT'D)

Mechanical Data
Mounting position—Any
Envelope—T-6½ glass

MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS

<table>
<thead>
<tr>
<th>Maximum Ratings</th>
<th>Design Center</th>
<th>Absolute</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plate voltage</td>
<td>300</td>
<td>330 volts</td>
</tr>
<tr>
<td>Cathode current (each section)</td>
<td>20</td>
<td>22 milliamperes</td>
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<tr>
<td>Plate dissipation (each section)</td>
<td>2.75</td>
<td>3.03 watts</td>
</tr>
<tr>
<td>Peak heater-cathode voltage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heater negative with respect to cathode</td>
<td>90</td>
<td>100 volts</td>
</tr>
<tr>
<td>Heater positive with respect to cathode</td>
<td>90</td>
<td>100 volts</td>
</tr>
</tbody>
</table>

Typical Operation
Class A1 amplifier (each triode section)
Plate voltage                               | 100           | 250 volts    |
Grid voltage†                                | 0             | -8.5 volts   |
Amplification factor                         | 19.5          | 17           |
Plate resistance                             | 6250          | 7700 ohms    |
Transconductance                             | 3100          | 2200 micromhos |
Plate current                                | 11.8          | 10.5 milliamperes |

†Measured with no external shield.
‡The d-c resistance in the grid circuit under rated maximum conditions should not exceed 0.25 megohm for fixed-bias operation and 1.0 megohm for cathode-bias operation.

GL-5814
AVERAGE CHARACTERISTICS
$E_f = 6.3$ VOLTS  PLATE VOLTAGE = 250

[Graph showing average characteristics]
GL-5814
AVERAGE PLATE CHARACTERISTICS
EACH TRIODE SECTION $E_t = 6.3$ VOLTS

GL-5814
AVERAGE PLATE CHARACTERISTICS
EACH TRIODE SECTION $E_t = 6.3$ VOLTS
HEATERS CONNECTED IN PARALLEL
OUTLINE
PLIOTRON GL-5814

*MEASURED FROM BASE SEAT TO BULB-TOP LINE
AS DETERMINED BY RING GAGE OF 7/16" I.D.

BASING DIAGRAM

PIN 1: PLATE (SECTION NO. 2)
PIN 2: GRID (SECTION NO. 2)
PIN 3: CATHODE (SECTION NO. 2)
PIN 4: HEATER
PIN 5: HEATER
PIN 6: PLATE (SECTION NO. 1)
PIN 7: GRID (SECTION NO. 1)
PIN 8: CATHODE (SECTION NO. 1)
PIN 9: HEATER CENTER-TAP

Tube Department

GENERAL ELECTRIC
Schenectady, N.Y.