MECHANICAL DATA
Bulb ........................................ ST16
Base ........................................ B7-12, Medium Shell Octal, 7-Pin
Outline ..................................... 16-3
Baseing ..................................... 7S
Cathode .................................... Coated Unipotential
Mounting Position ........................ Any

ELECTRICAL DATA
HEATER CHARACTERISTICS
Heater Voltage ................................ 6.3 Volts
Heater Current ................................ 900 Ma

DIRECT INTERELECTRODE CAPACITANCES (Unshielded)
Grid to Plate: (g1 to p) ...................... 0.9 μF
Input: g1 to (h+k+g2+bp) .................. 11.5 μF
Output: p to (h+k+g2+bp) .................. 9.5 μF

RATINGS (Design Center Values)

<table>
<thead>
<tr>
<th></th>
<th>Triode Connection</th>
<th>Pentode Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plate Voltage</td>
<td>275</td>
<td>360 Volts Max.</td>
</tr>
<tr>
<td>Grid No. 2 Voltage</td>
<td>19</td>
<td>270 Volts Max.</td>
</tr>
<tr>
<td>Plate Dissipation</td>
<td></td>
<td>19.0 Watts Max.</td>
</tr>
<tr>
<td>Grid No. 2 Dissipation</td>
<td></td>
<td>2.5 Watts Max.</td>
</tr>
<tr>
<td>Heater-Cathode Voltage</td>
<td>180</td>
<td>180 Volts Max.</td>
</tr>
<tr>
<td>Grid No. 1 Circuit Resistance</td>
<td>0.1</td>
<td>0.1 Megohms Max.</td>
</tr>
<tr>
<td>Fixed Bias</td>
<td></td>
<td>0.5 Megohms Max.</td>
</tr>
<tr>
<td>Cathode Bias</td>
<td>0.5</td>
<td>0.5 Megohms Max.</td>
</tr>
</tbody>
</table>

CHARACTERISTICS AND TYPICAL OPERATION

<table>
<thead>
<tr>
<th></th>
<th>Triode Connection</th>
<th>Pentode Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class A1 Amplifier (Single Tube)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plate Voltage</td>
<td>250</td>
<td>250</td>
</tr>
<tr>
<td>Grid No. 2 Voltage</td>
<td>250</td>
<td>200</td>
</tr>
<tr>
<td>Grid No. 1 Voltage</td>
<td>-20</td>
<td>-14</td>
</tr>
<tr>
<td>Peak A.F. Signal Voltage</td>
<td>20</td>
<td>14</td>
</tr>
<tr>
<td>Plate Current (Zero Signal)</td>
<td>40</td>
<td>72</td>
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<tr>
<td>Plate Current (Max. Signal)</td>
<td>44</td>
<td>79</td>
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<tr>
<td>Grid No. 2 Current (Zero Signal)</td>
<td>5.0</td>
<td>2.5</td>
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<tr>
<td>Grid No. 2 Current (Max. Signal)</td>
<td>7.3</td>
<td>4.7</td>
</tr>
<tr>
<td>Transconductance</td>
<td>4700</td>
<td>6000</td>
</tr>
<tr>
<td>Plate Resistance</td>
<td>1700</td>
<td>22500</td>
</tr>
<tr>
<td>Load Resistance</td>
<td>5000</td>
<td>2500</td>
</tr>
<tr>
<td>Power Output</td>
<td>1.4</td>
<td>6.5</td>
</tr>
<tr>
<td>Total Harmonic Distortion</td>
<td>5</td>
<td>10</td>
</tr>
</tbody>
</table>

Sylvania Type 6L6G is a beam power audio amplifier designed for service in the output stage of radio receivers or other equipment requiring high power output, power sensitivity and efficiency. Electrically, the 6L6G and 6L6 are identical.
### TYPICAL OPERATION CONT'D

<table>
<thead>
<tr>
<th>Push-Pull Amplifier</th>
<th>Class A₁</th>
<th>Class AB₁</th>
<th>Class AB₂</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plate Voltage</td>
<td>250</td>
<td>270</td>
<td>360</td>
</tr>
<tr>
<td>Grid No. 2 Voltage</td>
<td>250</td>
<td>270</td>
<td>270</td>
</tr>
<tr>
<td>Grid No. 1 Voltage¹</td>
<td>-16</td>
<td>-17.5</td>
<td>-22.5</td>
</tr>
<tr>
<td>Peak A F Grid to</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grid Voltage</td>
<td>32</td>
<td>35</td>
<td>45</td>
</tr>
<tr>
<td>Plate Current (Zero Signal)</td>
<td>120</td>
<td>134</td>
<td>88</td>
</tr>
<tr>
<td>Plate Current (Max. Signal)</td>
<td>140</td>
<td>155</td>
<td>132</td>
</tr>
<tr>
<td>Grid No. 2 Current (Zero Signal)</td>
<td>10</td>
<td>11</td>
<td>5</td>
</tr>
<tr>
<td>Grid No. 2 Current (Max. Signal)</td>
<td>16</td>
<td>17</td>
<td>15</td>
</tr>
<tr>
<td>Transconductance (Each Tube)</td>
<td>5500</td>
<td>5700</td>
<td><img src="image" alt="μmhos" /></td>
</tr>
<tr>
<td>Plate Resistance (Each Tube)</td>
<td>24500</td>
<td>23500</td>
<td><img src="image" alt="Ohms" /></td>
</tr>
<tr>
<td>Load Resistance</td>
<td>5000</td>
<td>5000</td>
<td>6600</td>
</tr>
<tr>
<td>Power Output</td>
<td>14.5</td>
<td>17.5</td>
<td>26.5</td>
</tr>
<tr>
<td>Total Harmonic Distortion</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

**NOTE:**

1. For fixed bias operation the grid bias resistor should not exceed 0.1 megohm. A grid circuit resistance of .25 megohms may be used for self bias providing the heater voltage will not exceed 7.0 volts under any probable operating condition.
AVERAGE PLATE CHARACTERISTICS

$E_f = 6.3$ VOLTS
$E_{CI} = 0$ VOLTS

CURRENTS IN MILLIAMPERES

PLATE VOLTAGE
\[ E_f = 6.3 \text{ VOLTS} \]
\[ E_b + E_c2 = 250 \text{ VOLTS} \]
\[ E_c1 = -14 \text{ VOLTS} \]
\[ R_L = 2500 \text{ OHMS} \]