BEAM POWER AMPLIFIER

UNIPOTENTIAL CATHODE

HEATER
35 VOLTS 0.15 AMPERE
AC OR DC

GLASS BULB

7 PIN OCTAL BASE

THE TUNG-SOL 35L6GT IS DESIGNED PRIMARILY FOR SERVICE IN THE OUTPUT STAGE OF AC-DC RECEIVERS EMPLOYING 150 MA. HEATER TUBES.

OPERATING CONDITIONS AND CHARACTERISTICS

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLATE VOLTAGE MAX.</td>
<td>110</td>
<td>VOLTS</td>
</tr>
<tr>
<td>SCREEN VOLTAGE MAX.</td>
<td>110</td>
<td>VOLTS</td>
</tr>
<tr>
<td>GRID VOLTAGE G</td>
<td>-7.5</td>
<td>VOLTS</td>
</tr>
<tr>
<td>PEAK AF SIGNAL VOLTAGE</td>
<td>7.5</td>
<td>VOLTS</td>
</tr>
<tr>
<td>GRID CIRCUIT RESISTANCE, SELF BIAS</td>
<td>0.75</td>
<td>MEGOHM</td>
</tr>
<tr>
<td>AMPLIFICATION FACTOR APPROX.</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>TRANSCONDUCTANCE</td>
<td>5800</td>
<td>MHO</td>
</tr>
<tr>
<td>ZERO-SIGNAL PLATE CURRENT</td>
<td>40</td>
<td>MA</td>
</tr>
<tr>
<td>MAX.-SIGNAL PLATE CURRENT</td>
<td>41</td>
<td>MA</td>
</tr>
<tr>
<td>ZERO-SIGNAL SCREEN CURRENT</td>
<td>3</td>
<td>MA</td>
</tr>
<tr>
<td>MAX.-SIGNAL SCREEN CURRENT</td>
<td>7</td>
<td>MA</td>
</tr>
<tr>
<td>LOAD RESISTANCE</td>
<td>2500</td>
<td>OHMS</td>
</tr>
<tr>
<td>DISTORTION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL HARMONIC</td>
<td>6.5</td>
<td>PERCENT</td>
</tr>
<tr>
<td>SECOND HARMONIC</td>
<td>4.0</td>
<td>PERCENT</td>
</tr>
<tr>
<td>THIRD HARMONIC</td>
<td>5.0</td>
<td>PERCENT</td>
</tr>
<tr>
<td>POWER OUTPUT</td>
<td>1.5</td>
<td>WATTS</td>
</tr>
</tbody>
</table>

6 A 150 OHM CATHODE BIAS RESISTOR IS RECOMMENDED FOR CONDITIONS ENCOUNTERED IN AC-DC RECEIVERS.

from RMA release #155, Jan. 6, 1939
MECHANICAL DATA

Coated unipotential cathode
Outline drawing................. 9-11 or 9-41   Bulb. ................. T-9
Base .......................... B6-81 or B7-7   intermediate shell octal
or B6-84 or B7-59 short intermediate shell octal
Maximum diameter ............ 1-9/32"
Maximum overall length ....... 3-5/16"
Maximum seated height ...... 2-3/4"
Pin connections:  
*Pin 1 - No connection   Pin 5 - Grid #1
Pin 2 - Heater            Pin 7 - Heater
Pin 3 - Plate             Pin 8 - Cathode, beam plates
Pin 4 - Grid #2
*Pin #1 omitted on Base Nos. B6-81 and B6-84.
Mounting position ........... any

ELECTRICAL DATA

Ratings

Heater voltage (ac or dc) ........ 35.0 volts
Maximum plate voltage .......... 200 volts
Maximum grid #2 voltage ....... 125 volts
Maximum plate dissipation ...... 8.5 watts
Maximum grid #2 dissipation ... 1.0 watts
Maximum grid #1 circuit resistance:
  Self-bias ................... 0.5 megohm
  Fixed-bias ................ 0.1 megohm
Maximum heater-cathode voltage .. 90 volts

Typical Operating Conditions and Characteristics, Class Al Amplifier

Heater voltage ................ 35.0 35.0 volts
Heater current ................. 150 150 ma
Plate voltage ................. 110 200 volts
Grid #2 voltage ............... 110 125 volts
Grid #1 voltage ............... 7.5 0 volts
Peak a-f grid #1 voltage .... 7.5 8.0 volts
Cathode-bias resistor ........ 0 180 ohms
Plate resistance (approx.) .... 14,000 34,000 ohms
Transconductance ............. 5700 6100 µmhos
Zero-signal plate current .... 40 43 ma
Maximum-signal plate current .. 41 43 ma
Zero-signal grid #2 current .. 3 2.0 ma
Maximum-signal grid #2 current 7 5.5 ma
Load resistance ............... 2500 5000 ohms
Total harmonic distortion .... 10 10 %
Power output ................ 1.5 3.0 watts

Refer to "Interpretation of Receiving Tube Ratings."