DESCRIPTION

AMPEREX 6007

The 6007 is a subminiature pentode output amplifier for hearing-aids and other purposes, where small size, light weight and low battery drain are important.

Physical specifications.

<table>
<thead>
<tr>
<th>Filament</th>
<th>coated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulb</td>
<td>T2</td>
</tr>
<tr>
<td>Base</td>
<td>none</td>
</tr>
<tr>
<td>Maximum diameter</td>
<td>0.322&quot;</td>
</tr>
<tr>
<td>Mounting position</td>
<td>any</td>
</tr>
</tbody>
</table>

Basing connections - JETEC basing designation SJ

1. Plate
2. Grid No.2
3. + filament
4. Grid No.1
5. - filament

The 6007 has flexible silvered terminal leads which may be soldered directly to the circuit elements. The wires are arranged in a straight line so that, if they are cut off to a length of 0.2" the tube can be fitted in a standard 5-pin subminiature socket.

General electrical data

| Filament voltage | 1.25 volt DC |
| Filament current | 13.3 mA       |

from RTMA release #1128, Jan. 30, 1953
Direct interelectrode capacitances

Grid No.1 to all other electrodes 2.5 µµf
Plate to all other electrodes 2.2 µµf
Plate to Grid No.1 max. 0.2 µµf

Maximum ratings

Plate voltage 45 volts
Plate dissipation 25 milli-watts
Grid No.2 voltage 45 volts
Grid No.2 dissipation 6 milli-watts
Cathode current 600 micro-amps
Grid No.1 voltage (when grid No.1 current = +0.3 micro-amp) -0.2 volt
Circuit resistance between grid No.1 and filament 10 megohms
Filament voltage max. 1.55 volt
Filament voltage min. 0.9 volt

Typical characteristics

Plate voltage 22.5 volts
Grid No.2 voltage 22.5 volts
Grid No.1 voltage -0.2 volt
Plate current 475 micro-amps
Grid No.2 current 100 micro-amps
Transconductance 420 micromhos
Plate resistance 0.4 megohm

Operating conditions as a single output amplifier

Battery voltage 22.5 volts
Plate load resistor 0.1 megohm
Grid leak resistor 10 megohms
Input voltage 0 0.45 volt (RMS)
Plate current 0.50 0.34 ma
Grid No.2 current 0.095 0.09 ma
Power output 0 1.8 milli-watt
Total harmonic distortion 0 10 %

Battery voltage 45 volts
Plate load resistor 0.1 megohm
Grid leak resistor 3 megohms
Cathode resistor 5600 ohms
Input voltage 0 0.8 volt (RMS)
Plate current 0.42 0.42 ma
Grid No.2 current 0.095 0.09 ma
Power output 0 6 milli-watts
Total harmonic distortion 0 10 %
Operating conditions as a push-pull amplifier
(Class AB1)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery voltage</td>
<td>22.5 volts</td>
</tr>
<tr>
<td>Plate load resistor (plate to plate)</td>
<td>0.12 mS</td>
</tr>
<tr>
<td>Grid leak resistor</td>
<td>5 mS</td>
</tr>
<tr>
<td>Input voltage</td>
<td>0.7 volt(RMS)</td>
</tr>
<tr>
<td>Plate current</td>
<td>0.97 ma</td>
</tr>
<tr>
<td>Grid No. 2 current</td>
<td>0.21 ma</td>
</tr>
<tr>
<td>Power output</td>
<td>4.2 milli-watts</td>
</tr>
<tr>
<td>Total harmonic distortion</td>
<td>8.5%</td>
</tr>
</tbody>
</table>

Plate voltage = 22.5 volts
Grid No 2 voltage = 22.5 volts