The 12AX7EH is a dual high mm triode with a spiral filament and special construction to minimize microphonic behavior. Ideal for replacement use in guitar amps and any place low noise and high gain is important.

### Electrical Data

<table>
<thead>
<tr>
<th>Pin #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>plate 2</td>
</tr>
<tr>
<td>2</td>
<td>grid 2</td>
</tr>
<tr>
<td>3</td>
<td>cathode 2</td>
</tr>
<tr>
<td>4, 5, 9</td>
<td>heater</td>
</tr>
<tr>
<td>6</td>
<td>plate 1</td>
</tr>
<tr>
<td>7</td>
<td>grid 1</td>
</tr>
<tr>
<td>8</td>
<td>cathode 1</td>
</tr>
</tbody>
</table>

#### Heater Voltage
- Not less than: 6.0 or 12.0 V
- Not more than: 6.6 or 13.2 V

#### Plate Voltage
- Not more than: 300 V

#### Heater to Cathode Voltage
- Positive, V not more than: 100 V
- Negative, V not less than: 200 V

#### Plate Current
- Not more than: 9 mA

#### Plate Dissipation
- Each triode, not more than: 1.0 watts

#### Maximum grid circuit resistance:
- Fixed bias, not more than: 1 Mohm
- Self bias, not more than: 2.2 Mohm

#### Inter-electrode Capacitance
- C, grid to plate: 1.6 pF (triode 1 and 2)
- C, grid to cathode and heater: 1.6 pF (triode 1 and 2)
- C, plate to cathode and heater: 0.44 pF (1) and 0.36 (2)
- C, cathode to heater: 5.0 nF (nominal)
- C, plate to plate: 520 pF

#### Measured Electrical minima:
- Grid reverse current, not more than: (see note below) 0.2 uA
- Plate current, not less than: (see note below) 0.75 mA
- Plate current (E_b=250V, E_c=-4V): 10 uA
- Transconductance, not less than: (see note below) 1.4 mA/V
- Amplification Factor, not less than: (see note below) 78
- Amplification Factor (nominal): 92
- Transconductance (nominal): 1.7 mA/V
- Plate Resistance (nominal): 54.1 K OHM
- Max Neg. Grid Voltage: 55 V
- Max Pos. Grid Voltage: 0 V
- Max Cold Voltage: 600 V

**NOTE:** heater V, 12.6 vac; plate V, 250V; grid bias, -2V; grid circuit resistance, 1K ohm