High-Mu Triode

GLASS-METAL PENCIL TYPE

FAST WARM-UP TIME STURDY COAXIAL ELECTRODE STRUCTURE

For Use in Cathode-Drive Service at Frequencies up to 3000 Mc

The 5876 is the same as the 5876A except for the following items:

**CHARACTERISTICS RANGE VALUES FOR EQUIPMENT DESIGN**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Note</th>
<th>Min.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heater Current</td>
<td>1</td>
<td>0.125</td>
<td>0.145</td>
</tr>
<tr>
<td>Heater-Cathode Leakage Current:</td>
<td>1 2</td>
<td>-</td>
<td>100</td>
</tr>
<tr>
<td>Heater negative with</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>respect to cathode</td>
<td>1 2</td>
<td>-</td>
<td>100</td>
</tr>
<tr>
<td>Emission Voltage</td>
<td>6</td>
<td>-</td>
<td>14</td>
</tr>
<tr>
<td>Plate Current (2)</td>
<td>1 11</td>
<td>-</td>
<td>100</td>
</tr>
</tbody>
</table>

**Note 1:** With 6.3 volts ac or dc on heater.

**Note 2:** With 100 volts dc between heater and cathode.

**Note 6:** With dc voltage on grid and plate which are connected together and adjusted to produce a cathode current of 30 ma. and have 5.5 volts on heater.

**Note 11:** With dc plate voltage of 250 volts and dc grid voltage of -15 volts.

**SPECIAL TESTS & PERFORMANCE DATA**

**Intermittent Dynamic Life Performance:**

This test (similar to MIL-E-10, paragraph 4.11.3.2) is performed on a sample lot of tubes from each production run to insure high quality of rf performance. Each tube is life-tested in a cavity-type oscillator at 500 ± 15 Mc under the following conditions: Heater voltage of 6.3 volts, plate-supply voltage of 300 volts, cathode resistor is adjusted to give a dc plate current of 25 ma. and value is recorded, plate-circuit load resistance of zero ohms, heater positive with respect to cathode by 100 volts, and plate- seal temperature of 175°C min. Heater voltage is cycled at a rate of 110 minutes on and 10 minutes off.

At the end of 500 hours, the tube will not show permanent shorts or open circuits and will be criticized for the total number of defects in the sample lot and for the number of tubes failing to meet the following limits:

- **Power Output:** 0.2 min. watt

For conditions with 6.3 volts ac or dc on heater, dc plate volts = 200, grid resistor adjusted to give a dc plate current of 18 milliamperes in a cavity-type oscillator operating at 1700 ± 15 Mc.

**Shorts and Continuity Test** specified in data for type 5876A.

→ Indicates a change.
Except for the following, other tests shown under type 5876A are not performed on the 5876:

**Low-Frequency Vibration Performance**

**Shorts and Continuity Test**

**Glass-Seal-Fracture Test**

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**DIMENSIONS IN INCHES**

**NOTE 1:** Maximum eccentricity of center line (axis) of plate terminal or grid-terminal flange with respect to the center line (axis) of the cathode terminal is 0.008".

**NOTE 2:** Tilt of grid-terminal flange with respect to rotational axis of cathode terminal is determined by chucking the cathode terminal, rotating the tube, and gauging the total travel distance of the grid-terminal flange parallel to the axis at a point approximately 0.020" inward from its edge for one complete rotation. The total distance will not exceed 0.020".

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← Indicates a change.

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