LINEAR BEAM-POWER PENTODE TYPE WL-7371

The WL-7371 is a beam-power pentode designed for service in the linear amplifier stages of Single-Sideband-Suppressed-Carrier transmitters. The radiation cooled anode can dissipate 75 watts. The cathode is a thoriated tungsten filament. Maximum ratings apply up to 175 megacycles.

The WL-7371 incorporates a vane-type suppressor grid which permits high-efficiency linear-radio-frequency-amplifier performance with zero suppressor-grid voltage. Its high-pervenance design and high power sensitivity enable the WL-7371 to deliver high power output with low power-supply voltage and driving power requirements.

**ELECTRICAL:**
- Cathode: Thoriated Tungsten Filament
- Filament: Min. Bogey Max.
- Voltage: 6.3 Volts
- Current: 3.0, 3.2, 3.6 Amperes
- Grid 1 to Grid 2 Amplification Factor: 5
- Direct Interelectrode Capacitances: Min. Bogey Max.
  - Grid 1 to Plate: 0.06 0.1 μF
  - Input: 5.4 7.5 7.6 μF
  - Output: 3.5 4.2 4.9 μF
- Transconductance:
  - Plate Volts = 500, Grid 2 Volts = 400,
  - Plate Milliamperes = 150 4500 jansons

**MECHANICAL:**
- Mounting Position: Vertical
- Cooling: Unrestricted Convection above 160 Mc.
- 15 CFM Air Flow on Anode Seal
- Maximum Bulb Temperature: 180°C
- Base: 7-Pin Soptr (JEDEC E7-2)
- Top Cap: Skirted Small
- Net Weight: 3.6 Ounces
- Shipping Weight: 3 Pounds

**MAXIMUM RATINGS**
- **Continuous Commercial Service**
  - **Class AB**
    - DC plate Voltage: 2000 max. Volts
    - DC Grid 2 Voltage: 600 max. Volts
    - DC Grid 3 Voltage (Suppressor): 100 max. Volts
    - DC Plate Current: 175 max. Ma.
    - Grid 2 Power Input: 10 max. Watts
    - Plate Dissipation: 75 max. Watts
  - **Class C**
    - DC plate Voltage: 2000 max. Volts

**CLASS AB, LINEAR AMPLIFIER**

**TYPICAL OPERATING CHARACTERISTICS**
- Single-Sideband-Suppressed-Carrier (Intermittent Modulation)
  - DC Plate Voltage: 1000 1500 2000 Volts
  - DC Grid 3 Voltage (Suppressor): 0 0 0 Volts
  - DC Grid 2 Voltage: 600 600 600 Volts
  - DC Grid 1 Voltage (Control): -100 -110 -115 Volts
  - Maximum Signal: 175 175 175 Ma.
  - Grid 2 Current: Screen
    - Zero Signal: 0 0 0 Ma.
    - Maximum Signal: 10 8 7 Ma.
  - Peak RF Grid Voltage: 100 110 115 Volts
  - Maximum Signal Plate Power Input: 175 260 350 Watts
  - Maximum Signal Plate Dissipation: 70 110 125 Watts
  - Maximum Signal Power Output to Load: 96 140 210 Watts

* Base fits Johnson No. 122-101 or 122-247 or National No. HX-29 socket.
* During normal voice modulation, average plate dissipation will not exceed 75 watts.

WESTINGHOUSE ELECTRIC CORPORATION, ELECTRONIC TUBE DIVISION, ELFINA, NEW YORK
from JEDEC release #2656, Dec. 7, 1959
CLASS C AMPLIFIER
CW or FM

TYPICAL OPERATING CHARACTERISTICS
For Frequencies up to 175 Mc.

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<tr>
<th>Parameter</th>
<th>1000</th>
<th>1000</th>
<th>1500</th>
<th>1500</th>
<th>2000</th>
<th>2000</th>
<th>Volts</th>
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<td>DC Plate Voltage</td>
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<td>146</td>
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<td>8</td>
<td>9</td>
<td>6</td>
<td>Ma.</td>
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FREQUENCY OPERATING CURVE

- Percentage of Normal Power Output
- Frequency in Megacycles (0 to 175 Mc.)