POWER TRIODE

DESCRIPTION

The Nucom tube type 6367 is a forced-air-cooled general purpose, three electrode tube, specifically designed for industrial and communication applications. The anode is capable of dissipating 3 kilowatts. It features a sturdily-supported, double-spiral thoriated tungsten filament. Rugged kovar grid and filament seals, insures greater protection against mechanical stress and shock. The wide spacing between elements and the high efficiency, low pressure radiator are additional features of this tube. Flexible leads constructed of O.F.H.C. copper can be modified to individual customer requirements.

Full input ratings apply to 30 mc. Reduced ratings, as indicated, are applicable for useful power outputs extending to 50 mc.

SPECIFICATIONS

ELECTRICAL:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filament Voltage</td>
<td>13.0 Volts</td>
</tr>
<tr>
<td>Filament Current</td>
<td>36 Amperes</td>
</tr>
<tr>
<td>Amplification Factor, $E_c = -200V$, $I_b = 0.2A$</td>
<td>25</td>
</tr>
<tr>
<td>Interelectrode Capacitances</td>
<td></td>
</tr>
<tr>
<td>Grid-Plate</td>
<td>14.7 $\mu$F</td>
</tr>
<tr>
<td>Grid-Filament</td>
<td>14.5 $\mu$F</td>
</tr>
<tr>
<td>Plate-Filament</td>
<td>1.7 $\mu$F</td>
</tr>
</tbody>
</table>

PHYSICAL:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mounting Position</td>
<td>Vertical</td>
</tr>
<tr>
<td>Type of Cooling</td>
<td>Forced-Air</td>
</tr>
<tr>
<td>Maximum Incoming Air Tempe.</td>
<td>45°C</td>
</tr>
</tbody>
</table>

Required Air Flow on Anode

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plate Dissipation (Kilowatts)</td>
<td>3 2.4 1.8</td>
</tr>
<tr>
<td>Air Flow — Cubic Feet Per Min.</td>
<td>190 125 75</td>
</tr>
<tr>
<td>Pressure — Inches Water</td>
<td>1.21 0.58 0.26</td>
</tr>
<tr>
<td>Maximum Glass Temperature</td>
<td>150°C</td>
</tr>
<tr>
<td>Net Weight Approximate</td>
<td>4.3 Pounds</td>
</tr>
</tbody>
</table>
MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS

AUDIO-FREQUENCY POWER AMPLIFIER AND MODULATOR -- CLASS B

MAXIMUM RATINGS, ABSOLUTE VALUES

DC Plate Voltage .................. 6,200 Volts
Maximum Signal DC Plate Current* 2.0 Amperes
Maximum Signal Plate Input* ...... 6.0 Kilowatts
Plate Dissipation* ................ 3 Kilowatts

TYPICAL OPERATION
(Unless otherwise specified, values are for two tubes)

DC Plate Voltage .................. 5,000 Volts
DC Grid Voltage .................. -150 Volts
Peak A-F Grid-to-Grid Voltage ...... 1,260 Volts
Zero Signal DC Plate Current ...... 0.4 Ampere
Maximum Signal DC Plate Current 2.25 Ampere
Effective Load Resistance,
Plate-to-Plate .................. 4,000 Ohms
Maximum Signal Driving Power,
Approximate .................. 175 Watts
Maximum Signal Power Output,
Approximate .................. 7.2 Kilowatts

*Rated over any audio-frequency cycle of sine-wave form.

PLATE MODULATED RADIO-FREQUENCY POWER AMPLIFIER -- CLASS C TELEPHONY

(Carrier conditions per tube for use with a maximum modulation factor of 1.0)

MAXIMUM RATINGS, ABSOLUTE VALUES

DC Plate Voltage .................. 6,000 Volts
DC Grid Voltage .................. -160 Volts
Peak R-F Grid Voltage .............. 300 Volts
DC Plate Current .................. 0.56 Ampere
DC Grid Current, Approximate ...... 0.00 Ampere
Driving Power, Approximate** ....... 47 Watts
Power Output, Approximate ........ 1 Kilowatt

**At crest of audio-frequency cycle with modulation factor of 1.0.

RADIO-FREQUENCY POWER AMPLIFIER -- CLASS B

MAXIMUM RATINGS, ABSOLUTE VALUES

DC Plate Voltage .................. 6,200 Volts
DC Plate Current .................. 1.5 Amperes
Plate Input ...................... 4.5 Kilowatts
Plate Dissipation ................ 3 Kilowatts

TYPICAL OPERATION

DC Plate Voltage .................. 6,000 Volts
DC Grid Voltage .................. -160 Volts
Peak R-F Grid Voltage .............. 300 Volts
DC Plate Current .................. 0.56 Ampere
DC Grid Current, Approximate ...... 0.00 Ampere
Driving Power, Approximate** ....... 47 Watts
Power Output, Approximate ........ 1 Kilowatt

**At crest of audio-frequency cycle with modulation factor of 1.0.

RADIO-FREQUENCY POWER AMPLIFIER AND OSCILLATOR -- CLASS C TELEGRAPHY

(Key-down conditions per tube without amplitude modulation)†

MAXIMUM RATINGS, ABSOLUTE VALUES

DC Plate Voltage .................. 6,200 Volts
DC Grid Voltage .................. -1,500 Volts
DC Plate Current .................. 2.0 Amperes
DC Grid Current .................. 0.2 Ampere
Plate Input ...................... 12 Kilowatts
Plate Dissipation ................ 3 Kilowatts

TYPICAL OPERATION

DC Plate Voltage .................. 5,000 Volts
DC Grid Voltage .................. -800 Volts
Peak R-F Grid Voltage .............. 1,370 Volts
DC Plate Current .................. 0.74 Ampere
DC Grid Current, Approximate ...... 0.10 Ampere
Driving Power, Approximate ...... 225 Watts
Power Output, Approximate ........ 6 Kilowatts

† Modulation, essentially negative, may be used if the positive peak of the envelope does not exceed 115 per cent of the carrier conditions.

MAXIMUM RATINGS vs. OPERATING FREQUENCY

Frequency ..................... 30 - 50 Megacycles
Percentage of Maximum
Rated Plate Voltage and Plate
Input Class C — Telegraphy ...... 100 - 75 Per Cent
(Unless otherwise specified, values are for two tubes)
OUTLINE

FLEXIBLE COPPER LEADS
1/2 WIDE X 6 LONG
(LEADS CAN BE MODIFIED TO YOUR SPECIFICATIONS.)

ANODE RADIATOR

3½ DIA. MAX.

2 DIA. MAX.

4⅝ X ⅛ DIA.

1.500±.125 DIA.

TERMINAL COLOR CODE
1=GRID -- BLACK
2=Fil. -- YELLOW
3=GRID -- BLACK
4=F.C.T. -- RED
5=GRID -- BLACK
6=Fil. -- YELLOW

GRID CHARACTERISTICS
GRID AMPERES

PLATE KILO Volts

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