UHF POWER TRIODE
PENCIL TYPE

FOR
RF POWER AMPLIFIER, OSCILLATOR
AND FREQUENCY MULTIPLIER APPLICATIONS
IN MOBILE AND AIRCRAFT EQUIPMENT

COATED UNIPOTENTIAL CATHODE
ANY MOUNTING POSITION

ELECTRODE TERMINATIONS
SEE OUTLINE DRAWING

THE 5675 IS A COAXIAL METAL-GLASS PENCIL-TYPE MEDIUM MU TRIODE. ITS MAXIMUM PLATE DISSIPATION IS 5 WATTS C.C.S. THE TUBE MAY BE OPERATED WITH FULL RATINGS UP TO A FREQUENCY OF 1,700 MC/S, AND WITH REDUCED RATINGS UP TO 3,000 MC/S.

ELECTRICAL DATA
DIRECT INTERELECTRODE CAPACITANCES
WITHOUT EXTERNAL SHIELD

GRID TO PLATE 1.4 pf
GRID TO CATHODE 2.4 pf
PLATE TO CATHODE MAX. 0.99 pf

HEATER CHARACTERISTICS AND RATINGS
ABSOLUTE MAXIMUM VALUES - SEE EIA STANDARD RS-239

AVERAGE CHARACTERISTICS
6.3 VOLTS 135 mA

LIMITS OF APPLIED VOLTAGE – AC OR DC
6.3 ± 0.6 VOLTS
MAXIMUM HEATER-CATHODE VOLTAGE:
HEATER NEGATIVE WITH RESPECT TO CATHODE 90 VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE 90 VOLTS
MINIMUM PREHEAT TIME
60 SEC.

AVERAGE STATIC CHARACTERISTICS

PLATE VOLTAGE 135 VOLTS
CATHODE RESISTOR 68 OHMS
PLATE CURRENT 24 mA
TRANSCONDUCTANCE 6,200 MMHOES
AMPLIFICATION FACTOR 20

CONTINUED ON FOLLOWING PAGE
CONTINUED FROM PRECEDING PAGE

CLASS C TELEGRAPHY - RF POWER AMPLIFIER AND OSCILLATOR
MAXIMUM RATINGS - ABSOLUTE MAXIMUM SYSTEM - SEE EIA STANDARD RS-239

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>DC PLATE VOLTAGE</td>
<td>300 VOLS</td>
</tr>
<tr>
<td>DC GRID VOLTAGE</td>
<td>-90 VOLS</td>
</tr>
<tr>
<td>DC PLATE CURRENT</td>
<td>31 mA</td>
</tr>
<tr>
<td>DC GRID CURRENT</td>
<td>8 mA</td>
</tr>
<tr>
<td>PLATE INPUT</td>
<td>5 WATTS</td>
</tr>
<tr>
<td>PLATE DISSIPATION - SEE NOTE</td>
<td>5 WATTS</td>
</tr>
<tr>
<td>PLATE SEAL TEMPERATURE</td>
<td>175 °C</td>
</tr>
<tr>
<td>FREQUENCY FOR OPERATION AT FULL RATINGS</td>
<td>1,700 MC/S</td>
</tr>
<tr>
<td>ALTITUDE FOR OPERATION AT FULL RATINGS</td>
<td>60,000 FEET</td>
</tr>
<tr>
<td>GRID CIRCUIT RESISTANCE</td>
<td>0.1 MEGOHMS</td>
</tr>
</tbody>
</table>

NOTE: IF THE PLATE DISSIPATION EXCEEDS 2.5 WATTS, ADEQUATE COOLING MUST BE PROVIDED IN ORDER TO STAY WITHIN THE TEMPERATURE RATING.

TYPICAL OPERATION-OSCILLATOR IN CATHODE-DRIVE CIRCUIT
RF AMPLIFIER WITH CATHODE DRIVE

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
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<tbody>
<tr>
<td>FREQUENCY</td>
<td>1,700 3,000 MC/S</td>
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<tr>
<td>DC PLATE-TC-GRID VOLTAGE</td>
<td>128 151.5 VOLS</td>
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<tr>
<td>DC CATHODE-TO-GRID VOLTAGE FROM A GRID RESISTOR</td>
<td>8 1.5 VOLS</td>
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<tr>
<td>DC PLATE CURRENT</td>
<td>2,000 5,000 OHMS</td>
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<tr>
<td>DC GRID CURRENT - APPROX.</td>
<td>25 29 mA</td>
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<tr>
<td>USEFUL POWER OUTPUT - APPROX.</td>
<td>475 50 mW</td>
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</table>

SPECIAL TESTS AND PERFORMANCE DATA
CONTROLLED ON A SAMPLING BASIS

VIBRATION TEST
GLASS SEAL FRACTURE TESTS
500 HOUR LIFE TEST IN OSCILLATOR
OUTLINE DRAWING

CYLINDER  PLATE

FLANGE  GRID

CYLINDER  CATHODE

2 LEADS  HEATER

ALL DIMENSIONS IN INCHES