GENERAL DESCRIPTION

Application: The Ken-Rad 12J5GT is a cathode type general purpose amplifier triode designed for use in resistance coupled amplifiers or in super-heterodyne circuits as an oscillator. The high mutual conductance and low output capacitance make the tube especially suited for high frequency oscillator service. The 12J5GT is a glass tube equipped with a small octal base. The electrical characteristics of this type are identical to those of type 6J5GT except for heater requirements.

Physical Characteristics:

Bottom View

RATING AND CHARACTERISTICS

Heater:
Voltage 12.6 Volts AC or DC
Current .150 Ampere

Note: Voltage between heater and cathode should be kept at a minimum if direct connection is not possible.

Operating Conditions: (Class A Amplifier)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plate Voltage</td>
<td>250 Volts Max.</td>
</tr>
<tr>
<td>Grid Voltage</td>
<td>-8 Volts</td>
</tr>
<tr>
<td>Plate Current</td>
<td>9.0 Milliamperes</td>
</tr>
<tr>
<td>Plate Resistance</td>
<td>7700 Ohms Approx.</td>
</tr>
<tr>
<td>Mutual Conductance</td>
<td>20000 Microhms Approx.</td>
</tr>
<tr>
<td>Amplification Factor</td>
<td>20</td>
</tr>
</tbody>
</table>

Direct Inter-electrode Capacitances:

<table>
<thead>
<tr>
<th>Capacitance</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grid to Plate</td>
<td>3.4 μf.</td>
</tr>
<tr>
<td>Input</td>
<td>3.8 μf.</td>
</tr>
<tr>
<td>Output</td>
<td>3.3 μf.</td>
</tr>
</tbody>
</table>

from RMA release #169, March 28, 1939

Note: For characteristic curves refer to type 6J5G.
MECHANICAL DATA

Coated unipotential cathode

Outline drawing: 9-11 or 9-41
Base: B5-82 or B6-8

Intermediate shell octal or B5-85 or B6-60 short intermediate shell octal

Maximum diameter: 1-9/32"
Maximum overall length: 3-5/16"
Maximum seated height: 2-3/4"

Pin connections:
*Pin 1 - No connection
Pin 2 - Heater
Pin 3 - Plate
Pin 5 - Grid
Pin 7 - Heater
Pin 8 - Cathode

Mounting position: any

ELECTRICAL DATA

Direct Inter-electrode Capacitances

Grid to plate: (g to p) 3.8 µuf
Input: g to (h+k) 4.2 µuf
Output: p to (h+k) 5.0 µuf

External shield #308 connected to pin #8.

Ratings

Heater voltage: 12.6 volts
Maximum plate voltage: 300 volts
Maximum positive dc grid #1 voltage: 0 volts
Maximum plate dissipation: 2.5 watts
Maximum grid circuit resistance: 1.0 megohm
Maximum heater-cathode voltage: 90 volts
Maximum cathode current: 20 ma

Typical Operating Conditions and Characteristics, Class A1 Amplifier

Heater voltage: 12.6 volts
Heater current: 150 ma
Plate voltage: 90 volts
Grid voltage: 0 volts
Amplification factor: 20
Plate resistance: 6700 ohms
Transconductance: 300 µmhos
Plate current: 10 ma
Grid #1 voltage (approx.) for Ib = 10 µa: -7.0 volts

Refer to "Interpretation of Receiving Tube Ratings"