6J5

Description and Rating

GENERAL-PURPOSE TRIODE

GENERAL DESCRIPTION

Principal Application: The 6J5 is a general-purpose triode designed for use as a detector, amplifier or oscillator. Features of the 6J5 include a relatively high transconductance and a medium amplification factor, it is well suited to resistance-coupled service, having high output voltage capabilities.

Cathode ............... Coated Unipotential
Heater Voltage (A-C or D-C) ....... 6.3 Volts
Heater Current ............... 0.3 Ampere
Envelope ............... MT-9, Metal Shell
Base ............... B6-23, Small Wafer Octal 6-Pin

Mounting Position .......... Any
Direct Interelectrode Capacitances: #
Grid to Plate ............... 3.4 μf
Input ............... 3.4 μf
Output ............... 3.6 μf

PHYSICAL DIMENSIONS

Terminal Connections

RTMA 60 BOTTOM VIEW

MAXIMUM RATINGS

DESIGN CENTER VALUES

Plate Voltage ............... 300 .......... Volts
Positive D-C Grid Voltage ....... 0 .......... Volts
Plate Dissipation ............... 2.5 .......... Watts
Cathode Current ............... 20 .......... Milliamperes
Heater-Cathode Voltage ............... 90 .......... Volts
Grid Circuit Resistance ............... 1.0 .......... Megohm

FEATURES

CLASS A1 AMPLIFIER

Plate Voltage ............... 90 .......... 250 .......... Volts
Grid Voltage ............... 0 .......... -8 .......... Volts
Amplification Factor ............... 20 .......... 20 .......... Ohms
Plate Resistance (Approx) ............... 6700 .......... 7700 .......... Ohms
Transconductance ............... 3000 .......... 2600 .......... Micromhos
Plate Current ............... 10 .......... 9 .......... Milliamperes
Grid Voltage (Approx) for i_b = 10 Microamperes ............... -7 .......... -18 .......... Volts

# with pin 1 connected to pin 8 at the socket
CLASS A RESISTANCE-COUPLED AMPLIFIER

<table>
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<th>Rp (Mega)</th>
<th>Rs (Mega)</th>
<th>Rg1 (Mega)</th>
<th>Rk</th>
<th>Gain</th>
<th>Eo</th>
<th>Rp (Mega)</th>
<th>Rs (Mega)</th>
<th>Rg1 (Mega)</th>
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<th>Gain</th>
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</table>

Notes: 1. Eo is maximum RMS voltage output for five percent (%) total harmonic distortion. 2. Gain measured at 2.0 volts RMS output. 3. For zero-bias data, generator impedance is negligible.

AVERAGE CHARACTERISTICS

Plate Current in Milliamperes

Grid Voltage in Volts

Note: Coupling capacitors (C1) should be selected to give desired frequency response. Rk should be adequately by-passed.