TUNG-SOL

TRIODE

COATED UNIPOTENTIAL CATHODE

HEATER
12.6 VOLTS 150 MA.
AC OR DC
ANY MOUNTING POSITION

BOTTOM VIEW
INTERMEDIATE SHELL
6 PIN OCTAL BASE

GLASS BULB

THE 12J5GT IS A GENERAL PURPOSE MEDIUM-MU TRIODE. IT IS USEFUL FOR SERVICE AS AN OSCILLATOR OR AUDIO-FREQUENCY AMPLIFIER.

DIRECT INTERELECTRODE CAPACITANCES - APPROX.
WITH CLOSE FITTING SHIELD CONNECTED TO CATHODE

GRID TO PLATE: (G TO P) 3.8 μμf
INPUT: G TO (H+K) 4.2 μμf
OUTPUT: P TO (H+K) 5 μμf

RATINGS
INTERPRETED ACCORDING TO NWA STANDARD MB-210

HEATER VOLTAGE 12.6 VOLTS
MAXIMUM HEATER-CATHODE VOLTAGE 90 VOLTS
MAXIMUM PLATE VOLTAGE 300 VOLTS
MINIMUM NEGATIVE DC GRID VOLTAGE 0 VOLTS
MAXIMUM GRID CIRCUIT RESISTANCE 1.0 MEG.
MAXIMUM PLATE DISSIPATION 2.5 WATTS
MAXIMUM CATHODE CURRENT 20 MA.

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A1 AMPLIFIER

| HEATER VOLTAGE | 12.6 | 12.6 | VOLTS
| HEATER CURRENT | 150  | 150  | MA.
| PLATE VOLTAGE  | 250  | 250  | VOLTS
| GRID VOLTAGE   | 0    | -8   | VOLTS
| PLATE CURRENT  | 9    |      | MA.
| PLATE RESISTANCE| 700  | 700  | OHMS
| TRANSCONDUCTANCE| 2000 | 2000 | μMHS
| AMPLIFICATION FACTOR | 20   | 20   | 

SIMILAR TYPE REFERENCE: Ratings and characteristics are identical to 12AU, except for heater ratings.
CONTINUED ON FOLLOWING PAGE

→ INDICATES A CHANGE OR ADDITION.

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# Resistance Coupled Amplifier

<table>
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<tr>
<th>$R_1$ MEG.</th>
<th>$R_{g1}$ MEG.</th>
<th>$R_b$ MEG.</th>
<th>$E_{bb} = 90$ VOLTS</th>
<th>$E_{bb} = 150$ VOLTS</th>
<th>$E_{bb} = 300$ VOLTS</th>
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*Value of $R_{g1}$ is not critical.*

Gain measured at $E_o = 2.0$ volts RMS output.

$E_o$ is RMS output for 5% total harmonic distortion.

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![Circuit Diagram](image)

**Input**

**Output**

**Note:** Coupling capacitors $C_g$ and $C_k$ should be selected to give desired frequency response. $R_b$ should be adequately bypassed by capacitor $C_k$.

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*Indicates a change or addition.*

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**Plate 1949**

**Jan. 2, 1948**

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12J5GT

$E_f = 12.6 \text{ Volts}$

$E_b = 250 \text{ Volts}$

- $\sigma_m$
- $r_P$
- $\mu$

Transconductance ($\sigma_m$) - Micromhos

Amplification Factor ($\mu$)

Plate Resistance ($r_P$) - Kilohms