THE 6AV5GA IS A BEAM PENTODE DESIGNED FOR USE AS A HORIZONTAL-DEFLECTION AMPLIFIER IN TELEVISION RECEIVERS. IT USES EITHER A T-11 OR T-12 BULB.

DIRECT INTERELECTRODE CAPACITANCES — APPROX.
WITH NO EXTERNAL SHIELD

<table>
<thead>
<tr>
<th>GRID #4 TO PLATE</th>
<th>INPUT</th>
<th>OUTPUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5 µmF</td>
<td>14 µmF</td>
<td>7.0 µmF</td>
</tr>
</tbody>
</table>

RATINGS
INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM
HORIZONTAL DEFLECTION AMPLIFIER

HEATER VOLTAGE 6.3 VOLTS
MAXIMUM HEATER-CATHODE VOLTAGE:
HEATER POSITIVE WITH RESPECT TO CATHODE:
TOTAL DC AND PEAK 200 VOLTS
DC 100 VOLTS
HEATER NEGATIVE WITH RESPECT TO CATHODE:
TOTAL DC AND PEAK 200 VOLTS
MAXIMUM DC PLATE-SUPPLY VOLTAGE (BOOST + POWER SUPPLY) 550 VOLTS
MAXIMUM PEAK POSITIVE PULSE PLATE VOLTAGE (ABSOLUTE MAX.) 5500 VOLTS
MAXIMUM PEAK NEGATIVE PULSE PLATE VOLTAGE 1250 VOLTS
MAXIMUM GRID #2 VOLTAGE 175 VOLTS
MAXIMUM PEAK NEGATIVE GRID #1 VOLTAGE 300 VOLTS
MAXIMUM PLATE DISSIPATION 11 WATTS
MAXIMUM GRID #2 DISSIPATION 2.5 WATTS
MAXIMUM DC CATHODE CURRENT 110 MA.
MAXIMUM PEAK CATHODE CURRENT 400 MA.
MAXIMUM GRID #1 CIRCUIT RESISTANCE 0.47 MEGOHM
MAXIMUM BULB TEMPERATURE (AT HOTTEST POINT) 210 °C
HEATER WARM-UP TIME (APPROX.)* 11.0 SECONDS

A UNLESS OTHERWISE SPECIFIED.
B FOR OPERATION IN A 525-LINE, 30-FRAME TELEVISION SYSTEM AS DESCRIBED IN "STANDARDS OF GOOD ENGINEERING PRACTICE CONCERNING TELEVISION BROADCAST STATIONS," FEDERAL COMMUNICATIONS COMMISSION. THE DUTY CYCLE OF THE VOLTAGE PULSE MUST NOT EXCEED 35 PERCENT OF ONE SCANNING CYCLE.
C THIS VALUE MUST NOT BE EXCEEDED.
D IN STAGES OPERATING WITH GRID LEAK BIAS, AN ADEQUATE CATHODE-BIAS RESISTOR OR OTHER SUITABLE MEANS IS REQUIRED TO PROTECT THE TUBE IN THE ABSENCE OF EXCITATION.

*HEATER WARM-UP TIME IS DEFINED AS THE TIME REQUIRED FOR THE VOLTAGE ACROSS THE HEATER TO REACH 90% OF ITS RATED VOLTAGE AFTER APPLYING 4 TIMES RATED HEATER VOLTAGE TO A CIRCUIT CONSISTING OF THE TUBE HEATER IN SERIES WITH A RESISTANCE OF VALUE 3 TIMES THE NOMINAL HEATER OPERATION RESISTANCE.
**TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS**

- **HEATER VOLTAGE**: 6.3 VOLTS
- **HEATER CURRENT**: 1.2 AMP.
- **PLATE VOLTAGE**: 60 VOLS, 250 VOLS
- **GRID #2 VOLTAGE**: 150 VOLTS, 150 VOLTS
- **GRID #4 VOLTAGE**: 0 VOLS, 22.5 VOLS
- **PLATE RESISTANCE (APPROX.)**: ---, 14,500 OHMS
- **TRANSCONDUCTANCE**: ---, 5,900 MILHMS
- **PLATE CURRENT**: 26 MA, 57 MA
- **GRID #2 CURRENT**: 2.1 MA
- **GRID #4 VOLTAGE (APPROX.) FOR $I_b = 1.0$ MA**: ---, -4.7 VOLTS
- **TRIODE AMPLIFICATION FACTOR**: ---, 4.3

*Note: Applied for very short interval so as not to damage tube.*
*Note: Pentode connection (screen tied to plate) with $E_f = 6.3$ volts, $E_{c2} = 150$ volts and $E_{c1} = 22.5$ volts

**SIMILAR TYPE REFERENCE:** Except for heater characteristics, the 6AV5GA is identical to the 12AV5GA, 17AV5GA & the 24AV5GA.

---

**INDICATES A CHANGE.**
6AV5GA (25AV5GA)

6AV5GA
PENTODE CONNECTION

$E_f = 6.3$ Volts
$E_b = 250$ Volts

GRID #1 VOLTS

PLATE MILLIAMPERES

-60 -50 -40 -30 -20 -10 0

$E_f = 200$
$175$
$150$
$125$
$100$
$75$

PLATE #4288 MARCH 1, 1955 TUNG-SOL ELECTRIC INC. ELECTRON TUBE DIVISION BLOOMFIELD, NEW JERSEY, U.S.A.