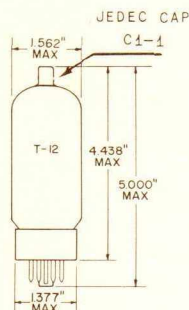


## TUNG-SOL

## BEAM PENTODE



GLASS BULB  
B8-110 OR B5-123  
SHORT MEDIUM SHELL  
5-PIN WITH  
EXTERNAL BARRIERS

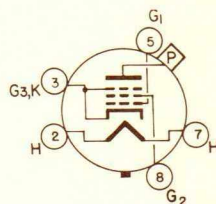
COATED UNIPOTENTIAL CATHODE

HEATER

6.3 VOLTS 2.5 AMP.

AC OR DC

VERTICAL MOUNTING POSITION

HORIZONTAL OPERATION IS PERMITTED  
IF PINS 2 AND 7 ARE IN A VERTICAL  
PLANE.

BOTTOM VIEW

BASING DIAGRAM

JEDEC 5BT

THE 6CD6GA IS A BEAM PENTODE DESIGNED FOR USE AS A HORIZONTAL-DEFLECTION AMPLIFIER IN TELEVISION RECEIVERS. FEATURES OF THIS TUBE ARE AN EXTREMELY HIGH PERVEANCE, HIGH PLATE CURRENT AT LOW PLATE AND SCREEN VOLTAGES AND A HIGH RATIO OF PLATE TO SCREEN CURRENT.

DIRECT INTERELECTRODE CAPACITANCES — APPROX.  
WITH NO EXTERNAL SHIELD

|                  |     |    |
|------------------|-----|----|
| GRID #1 TO PLATE | 1.1 | pf |
| INPUT            | 22  | pf |
| OUTPUT           | 8.5 | pf |

## RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM<sup>A</sup>HORIZONTAL-DEFLECTION AMPLIFIER SERVICE<sup>B</sup>

## MAXIMUM HEATER-CATHODE VOLTAGE:

HEATER POSITIVE WITH RESPECT TO CATHODE

DC

100 VOLTS

TOTAL DC AND PEAK

200 VOLTS

HEATER NEGATIVE WITH RESPECT TO CATHODE

TOTAL DC AND PEAK

200 VOLTS

## MAXIMUM DC PLATE-SUPPLY VOLTAGE

(BOOST + DC POWER SUPPLY)

700 VOLTS

## MAXIMUM PEAK POSITIVE PULSE PLATE VOLTAGE

7 000 VOLTS

## MAXIMUM NEGATIVE PULSE PLATE VOLTAGE

1 500 VOLTS

## MAXIMUM GRID #2 VOLTAGE

175 VOLTS

## MAXIMUM PEAK NEGATIVE GRID #1 VOLTAGE

200 VOLTS

MAXIMUM PLATE DISSIPATION<sup>C</sup>

20 WATTS

## MAXIMUM GRID #2 DISSIPATION

3.0 WATTS

## MAXIMUM DC CATHODE CURRENT

200 MA.

## MAXIMUM PEAK CATHODE CURRENT

700 MA.

## MAXIMUM GRID #1 CIRCUIT RESISTANCE

0.47 MEGOHM

## MAXIMUM BULB TEMPERATURE (AT HOTTEST POINT)

225 °C

<sup>A</sup>UNLESS OTHERWISE SPECIFIED.

<sup>B</sup>FOR OPERATION IN A 525-LINE, 30-FRAME SYSTEM AS DESCRIBED IN "STANDARDS OF GOOD ENGINEERING PRACTICE FOR TELEVISION BROADCASTING STATIONS; FEDERAL COMMUNICATIONS COMMISSION". THE DUTY CYCLE OF THE VOLTAGE PULSE NOT TO EXCEED 15 PERCENT OF A SCANNING CYCLE.

<sup>C</sup>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.

→ INDICATES A CHANGE.

CONTINUED ON FOLLOWING PAGE

TUNG-SOL

CONTINUED FROM PRECEDING PAGE

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

|                                                  |                |       |       |
|--------------------------------------------------|----------------|-------|-------|
| PLATE VOLTAGE                                    | 60             | 175   | VOLTS |
| GRID #2 VOLTAGE                                  | 100            | 175   | VOLTS |
| GRID #1 VOLTAGE                                  | 0 <sup>D</sup> | -30   | VOLTS |
| PLATE RESISTANCE (APPROX.)                       | ---            | 7 200 | OHMS  |
| TRANSCONDUCTANCE                                 | ---            | 7 700 | μMHOS |
| PLATE CURRENT                                    | 230            | 75    | MA.   |
| GRID #2 CURRENT                                  | 21             | 5.5   | MA.   |
| GRID #1 VOLTAGE (APPROX.)<br>FOR $I_b = 1.0$ MA. | ---            | -55   | VOLTS |
| TRIODE AMPLIFICATION FACTOR <sup>E</sup>         | ---            | 3.9   |       |

<sup>D</sup> APPLIED FOR VERY SHORT INTERVAL SO AS NOT TO DAMAGE TUBE.

<sup>E</sup> TRIODE CONNECTION (SCREEN TIED TO PLATE) WITH  $E_b = E_{c2} = 175$  VOLTS AND  $E_{c1} = -30$  VOLTS.

**SIMILAR TYPE REFERENCE:** The 6CD6GA may be used as a replacement for the 6CD6G; it differs from the 6CD6G by employing a straight-sided T-12 envelope and incorporating increased maximum ratings for plate dissipation, pulse plate voltage, and bulb temperature.