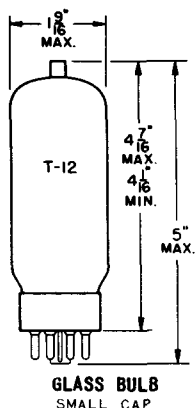


## TUNG-SOL

## PENTODE



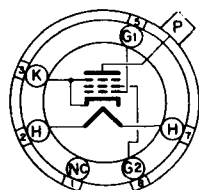
COATED UNIPOTENTIAL CATHODE

HEATER

25.0 VOLTS 0.6 AMP.

AC OR DC

VERTICAL MOUNTING POSITION

HORIZONTAL OPERATION PERMITTED IF  
PLANE OF PINS 1 AND 3 IS VERTICAL

BOTTOM VIEW

SHORT-MEDIUM SHELL  
8 PIN OCTAL

5BT

THE 25DN6 IS A BEAM POWER AMPLIFIER INTENDED FOR USE AS A HORIZONTAL DEFLECTION AMPLIFIER IN 600 MA. SERIES HEATER OPERATED TELEVISION RECEIVERS HAVING LOW B SUPPLY VOLTAGE. THERMAL CHARACTERISTICS OF THE HEATER HAVE BEEN CONTROLLED SUCH THAT HEATER VOLTAGE SURGES DURING THE WARM-UP CYCLE ARE MINIMIZED PROVIDED IT IS USED WITH OTHER TYPES WHICH ARE SIMILARLY CONTROLLED.

## DIRECT INTERELECTRODE CAPACITANCES — APPROX.

|                  |      |    |
|------------------|------|----|
| GRID #1 TO PLATE | 0.8  | μf |
| INPUT            | 22   | μf |
| OUTPUT           | 11.5 | μf |

## RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER VALUES<sup>A</sup>HORIZONTAL DEFLECTION AMPLIFIER<sup>B</sup>

|                                                           |       |         |
|-----------------------------------------------------------|-------|---------|
| HEATER VOLTAGE                                            | 25.0  | VOLTS   |
| MAXIMUM HEATER-CATHODE VOLTAGE:                           |       |         |
| HEATER NEGATIVE WITH RESPECT TO CATHODE                   |       |         |
| TOTAL DC AND PEAK                                         | 200   | VOLTS   |
| HEATER POSITIVE WITH RESPECT TO CATHODE                   |       |         |
| DC                                                        | 100   | VOLTS   |
| TOTAL DC AND PEAK                                         | 200   | VOLTS   |
| MAXIMUM DC PLATE SUPPLY VOLTAGE (BOOST + DC POWER SUPPLY) | 700   | VOLTS   |
| MAXIMUM PEAK POSITIVE PULSE PLATE VOLTAGE (ABS. MAX.)     | 6 600 | VOLTS   |
| MAXIMUM PEAK NEGATIVE PULSE PLATE VOLTAGE                 | 1 500 | VOLTS   |
| MAXIMUM PLATE DISSIPATION <sup>C</sup>                    | 15    | WATTS   |
| MAXIMUM PEAK NEGATIVE GRID #1 VOLTAGE                     | 200   | VOLTS   |
| MAXIMUM DC GRID #2 VOLTAGE                                | 175   | VOLTS   |
| MAXIMUM GRID #2 DISSIPATION                               | 3.0   | WATTS   |
| MAXIMUM AVERAGE 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      |
| HEATER WARM-UP TIME {APPROX.} <sup>D</sup>                | 11.0  | SECONDS |

<sup>A</sup> UNLESS OTHERWISE INDICATED.<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.<sup>D</sup> HEATER WARM-UP TIME IS DEFINED AS THE TIME REQUIRED FOR THE VOLTAGE ACROSS THE HEATER TO REACH 80% 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 OPERATING RESISTANCE.

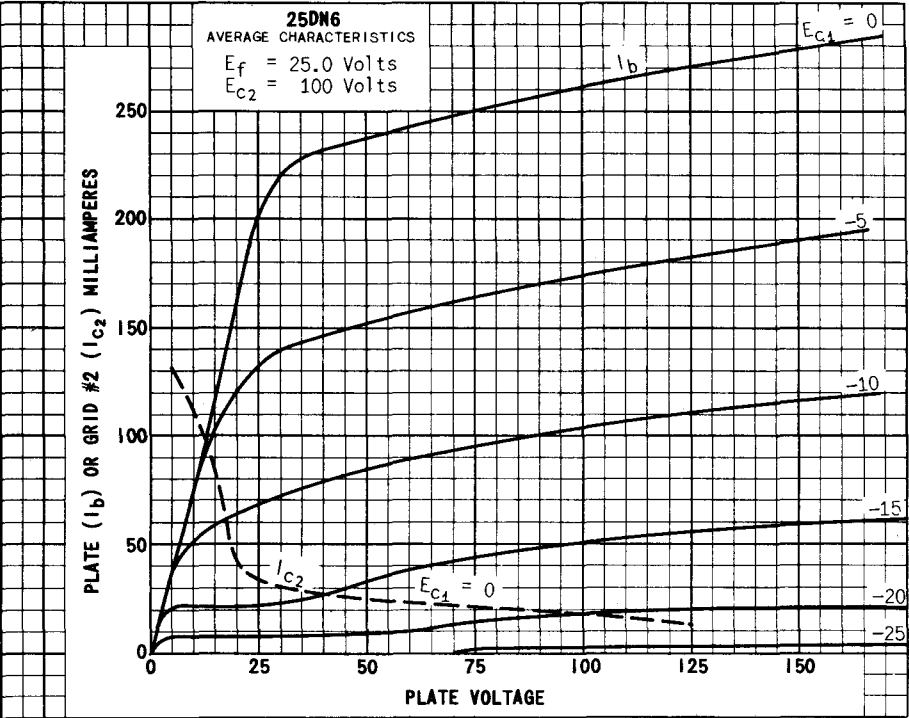
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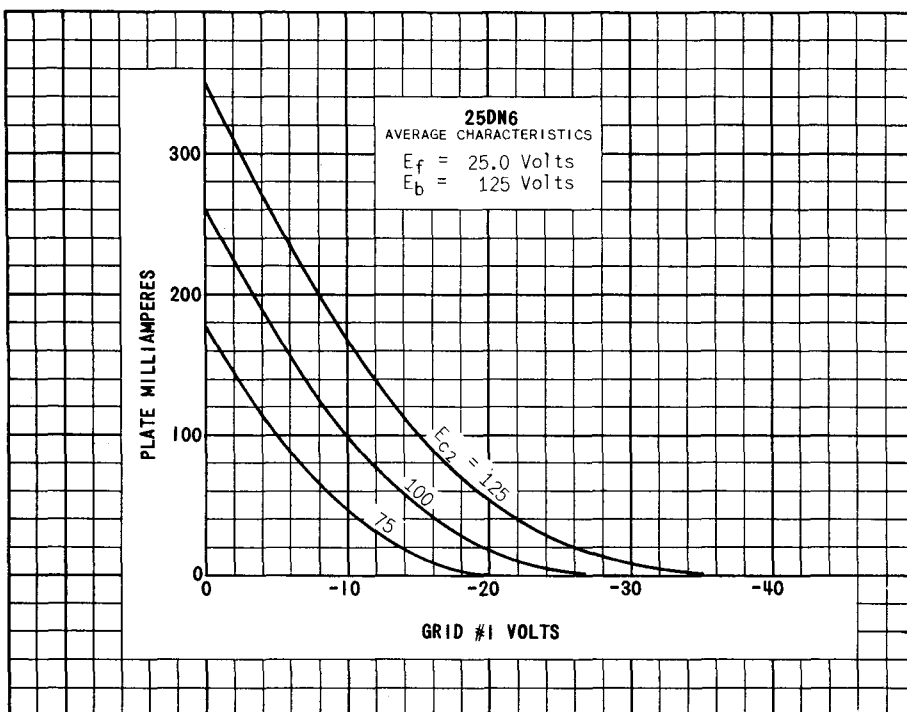
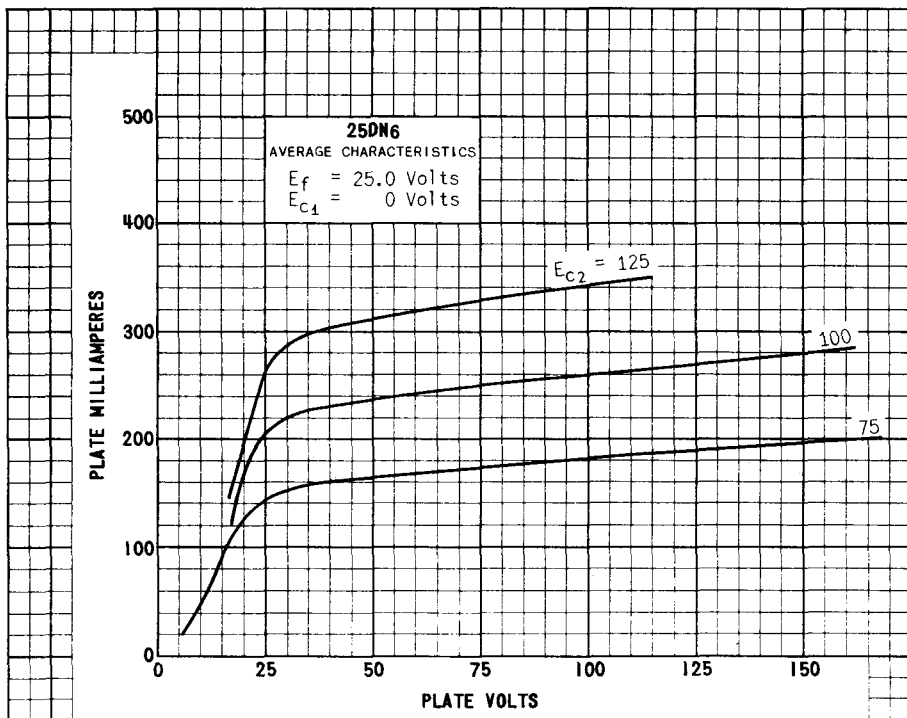
TUNG-SOL

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TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

|                                                                                                    |       |            |
|----------------------------------------------------------------------------------------------------|-------|------------|
| HEATER VOLTAGE                                                                                     | 25.0  | VOLTS      |
| HEATER CURRENT                                                                                     | 0.6   | AMP.       |
| PENTODE OPERATION: WITH $E_b = 125$ VOLTS, $E_{c2} = 125$ VOLTS AND $E_{c1} = -18$ VOLTS.          |       |            |
| PLATE CURRENT                                                                                      | 70    | MA.        |
| GRID #2 CURRENT                                                                                    | 6.3   | MA.        |
| TRANSCONDUCTANCE                                                                                   | 9 000 | $\mu$ MHOS |
| PLATE RESISTANCE (APPROX.)                                                                         | 4 000 | OHMS       |
| ZERO-BIAS: WITH $E_b = 50$ VOLTS, $E_{c2} = 100$ VOLTS & $E_{c1} = 0$ VOLTS (INSTANTANEOUS VALUES) |       |            |
| PLATE CURRENT                                                                                      | 240   | MA.        |
| GRID #2 CURRENT                                                                                    | 30    | MA.        |
| CUT-OFF: FOR $I_b = 0.5$ MA. WITH $E_b = 125$ VOLTS AND $E_{c2} = 125$ VOLTS                       |       |            |
| GRID #1 VOLTAGE (APPROX.)                                                                          | -36   | VOLTS      |
| TRIODE AMPLIFICATION FACTOR; WITH $E_b = E_{c2} = 125$ V. & $E_{c1} = -18$ V.                      | 4.35  |            |





25DN6

