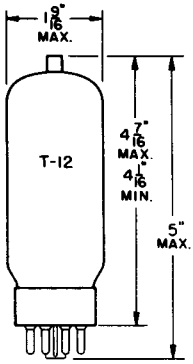
**TUNG-SOL**

PENTODE

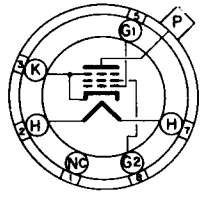



**GLASS BULB**
SMALL CAP

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 | μμf |
| INPUT | 22 | μμf |
| OUTPUT | 11.5 | μμf |

## RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER VALUES[A]

HORIZONTAL DEFLECTION AMPLIFIER[B]

| | | |
|---|---|---|
| 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[C] | 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.)[D] | 11.0 | SECONDS |

[A] UNLESS OTHERWISE INDICATED.

[B] 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.

[C] 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.

[D] 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.

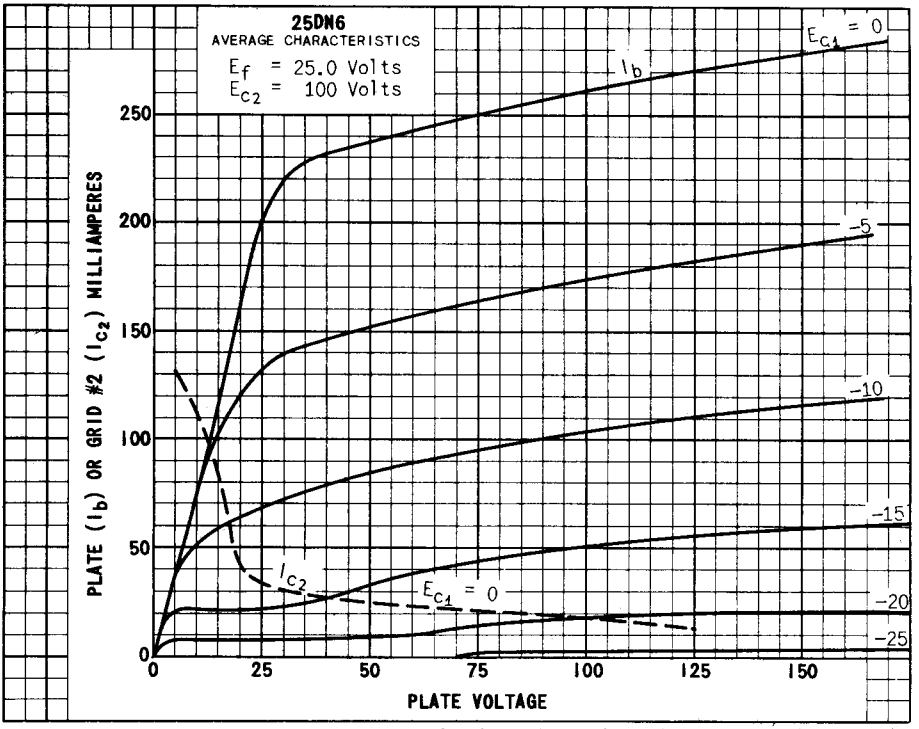
CONTINUED ON FOLLOWING PAGE

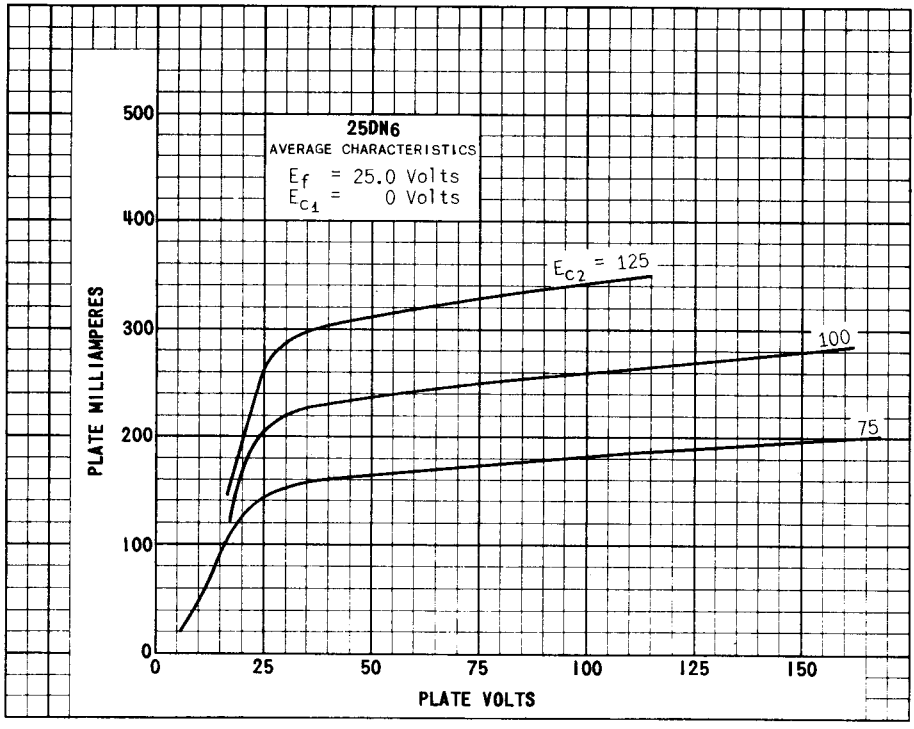
TUNG-SOL

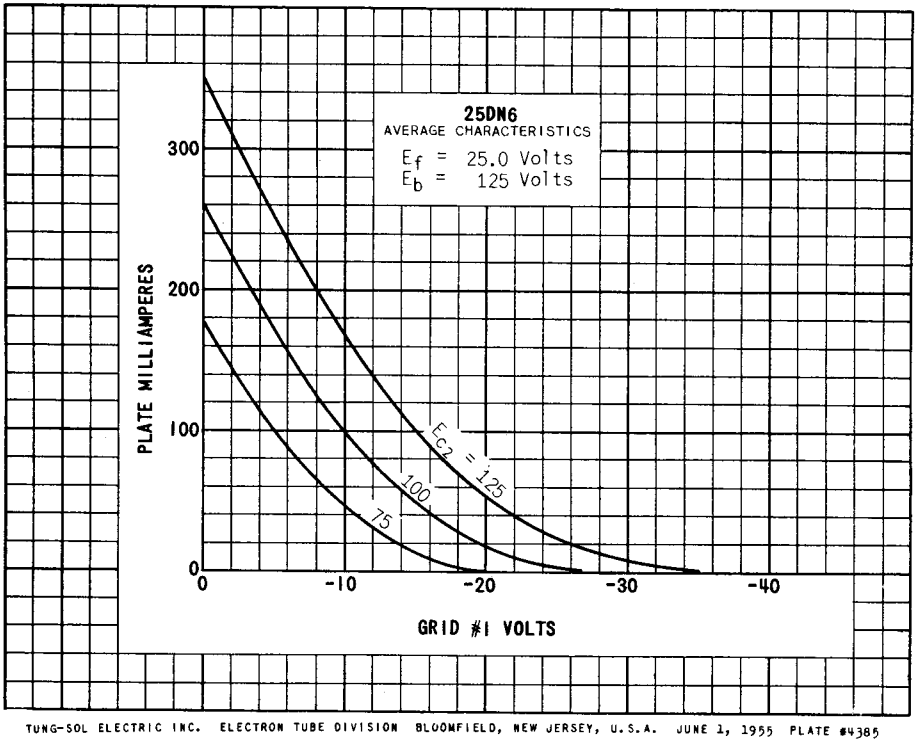
CONTINUED FROM PRECEDING PAGE

## 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 | μMHOS |
| 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

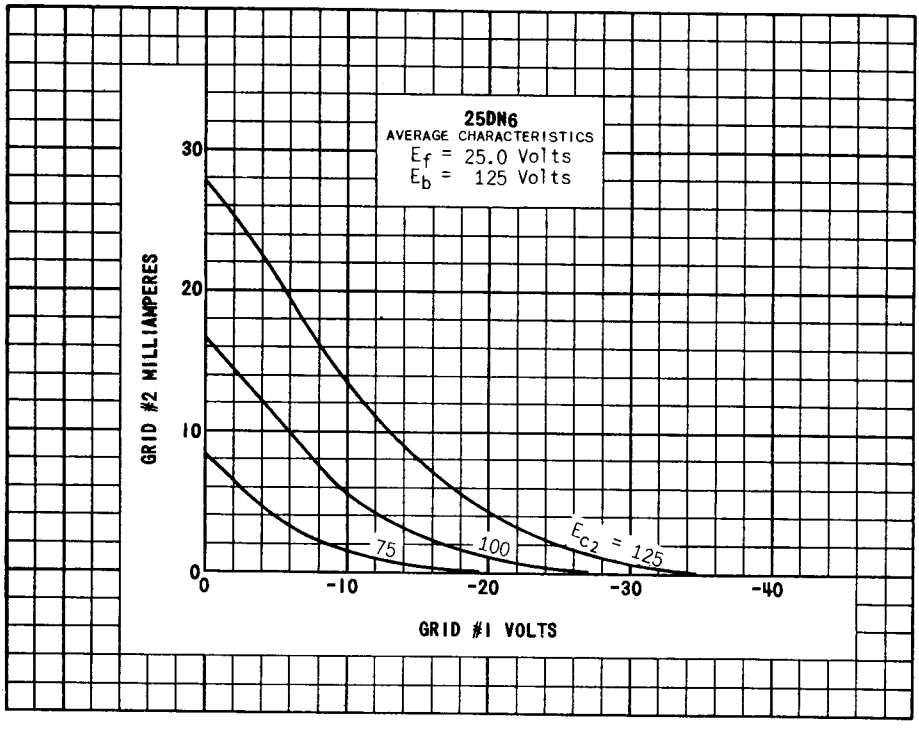



PLATE #4386 JUNE 1, 1955 TUNG-SOL ELECTRIC INC. ELECTRON TUBE DIVISION BLOOMFIELD, NEW JERSEY, U.S.A.