BEAM-POWER PENTODE
MINIATURE TYPE

COATED UNIPOTENTIAL CATHODE

HEATER
6.3 VOLTS 1.2 AMP.
AC OR DC
ANY MOUNTING POSITION

THE 6DT5 IS A BEAM POWER PENTODE IN THE 9-PIN MINIATURE CONSTRUCTION. IT IS DESIGNED FOR SERVICE AS A VERTICAL DEFLECTION OUTPUT AMPLIFIER IN TELEVISION RECEIVERS UTILIZING A 110° DEFLECTION ANGLE PICTURE TUBE AND A B+ SUPPLY VOLTAGE OF 250 VOLTS. IT HAS HIGH ZERO BIAS PLATE CURRENT AND A HIGH PLATE CURRENT TO GRID #2 CURRENT RATIO. EXCEPT FOR HEATER RATINGS AND WARM-UP TIME, THE 6DT5 IS IDENTICAL TO THE 12DT5 & 25DT5.

DIRECT INTERELECTRODE CAPACITANCES
WITHOUT EXTERNAL SHIELD

GRID #1 TO PLATE
0.57 µµf
12.5 µµf
4.9 µµf

DIRECT INTERELECTRODE CAPACITANCES
WITH EXTERNAL SHIELD

GRID #1 TO PLATE
0.57 µµf
12.5 µµf
4.9 µµf

RATINGS
INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM
VERTICAL DEFLECTION SERVICE
DEFLECTING 110° PICTURE TUBE

HEATER VOLTAGE
6.3 VOLTS

MAXIMUM PLATE VOLTAGE
315 VOLTS

MAXIMUM PEAK POSITIVE PULSE PLATE VOLTAGE (ABS. MAX.)
200 VOLTS

MAXIMUM GRID #2 VOLTAGE
285 VOLTS

MAXIMUM PEAK NEGATIVE PULSE GRID #1 VOLTAGE
-250 VOLTS

MAXIMUM PLATE DISSIPATION
9.0 WATTS

MAXIMUM GRID #2 DISSIPATION
2.0 WATTS

MAXIMUM CATHODE CURRENT:
AVERAGE
55 MA.
PEAK
190 MA.

MAXIMUM HEATER POSITIVE OR NEGATIVE WITH RESPECT TO GRID #1 CATHODE (TOTAL DC AND PEAK)
200 VOLTS

MAXIMUM GRID #1 CIRCUIT VALUES

FIXED BIAS
0.5 MEGOHM

CATHODE BIAS
-1.0 MEGOHM

HEATER WARM-UP TIME (APPROX.).
11.0 SEC.

CONTINUED ON FOLLOWING PAGE
CONTINUED FROM PRECEDING PAGE

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

| HEATER VOLTAGE | 6.3 | 6.3 | 6.3 | VOLTS |
| HEATER CURRENT | 1.2 | 1.2 | 1.2 | AMP.  |
| PLATE VOLTAGE  | 60  | 80  | 250 | VOLTS |
| GRID #2 (SCREEN) VOLTAGE | 150 | 250 | 290 | VOLTS |
| GRID #4 VOLTAGE | 0°F | 0°F | -16.5 | VOLTS |
| TRANSCONDUCTANCE | --- | --- | --- | AMPS  |
| PLATE CURRENT | 950 | 950 | 6200 | VOLTS |
| Grid #2 CURRENT | 1970 | 44 | 64 | MA.  |
| GRID #4 CUTOFF VOLTAGE | 8.5 | 8.5 | 1.5 | MA.  |

A. DESIGN-MAXIMUM RATINGS ARE THE LIMITING VALUES EXPRESSED WITH RESPECT TO ROGIE TUBES AT WHICH SATISFACTORY TUBE LIFE CAN BE EXPECTED TO OCCUR. TO OBTAIN SATISFACTORY CIRCUIT PERFORMANCE, THEREFORE, THE EQUIPMENT DESIGNER MUST ESTABLISH THE CIRCUIT DESIGN SO THAT NO DESIGN-MAXIMUM VALUE IS EXCEEDED WITH A ROGIE TUBE UNDER THE WORST PROBABLE OPERATING CONDITIONS WITH RESPECT TO SUPPLY-VOLTAGE VARIATION, EQUIPMENT COMPONENT VARIATION, EQUIPMENT CONTROL ADJUSTMENT, LOAD VARIATION, AND ENVIRONMENTAL CONDITIONS.

B. FOR OPERATION IN A 525-LINE, 30-FRAME SYSTEM AS DESCRIBED IN "STANDARDS OF GOOD ENGINEERING PRACTICE FOR TELEVISION BROADCAST STATIONS: FEDERAL COMMUNICATIONS COMMISSION", THE DUTY CYCLE OF THE VOLTAGE PULSE MUST NOT EXCEED 15% OF ONE 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. APPLIED FOR SHORT INTERVAL (MAXIMUM OF 2 SECONDS) SO AS NOT TO DAMAGE TUBE.

E. THESE VALUES CAN BE MEASURED BY A METHOD INVOLVING A RE-CURRENT WAVEFORM SUCH THAT THE PLATE DISSIPATION AND GRID #2 INPUT WILL BE KEPT WITHIN RATINGS IN ORDER TO PREVENT DAMAGE TO THE TUBE.

F. FOR PLATE CURRENT OF 100 AMPERES.

G. 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 RESISTANCE.

H. DC COMPONENT MUST NOT EXCEED 100 VOLTS.

→ INDICATES A CHANGE.