THE 35CD6GA IS A BEAM PENTODE DESIGNED FOR USE AS A HORIZONTAL DEFLECTION AMPLIFIER IN 450 MA SERIES HEATER OPERATED TELEVISION RECEIVERS. FEATURES OF THIS TUBE ARE AN EXTREMELY HIGH PERVALENCE, HIGH PLATE CURRENT AT LOW PLATE AND SCREEN VOLTAGES AND A HIGH RATIO OF PLATE TO SCREEN CURRENT. THERMAL CHARACTERISTICS OF THE HEATER ARE 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.
WITH NO EXTERNAL SHIELD
GRID #1 TO PLATE 1.1 µµf
INPUT 22 µµf
OUTPUT 8.5 µµf

RATINGS
INTERPRETED ACCORDING TO DESIGN CENTER SYSTEMA
HORIZONTAL-DEFLECTION AMPLIFIER SERVICEB
HEATER VOLTAGE 35 VOLTS
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

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RATINGS - CONT'D

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM A
HORIZONTAL-DEFLECTION AMPLIFIER SERVICE B

MAXIMUM PLATE DISSIPATION C  20 WATTS
MAXIMUM GRID #2 DISSIPATION  3.0 WATTS
MAXIMUM DC CATHODE CURRENT  200 MA.
MAXIMUM PEAK CATHODE CURRENT  700 MA.
MAXIMUM GRID #4 CIRCUIT RESISTANCE  0.47 MEGOHM
MAXIMUM BULB TEMPERATURE (AT HOTTEST POINT)  225 °C
HEATER WARM-UP TIME*  11.0 SECONDS

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

HEATER VOLTAGE  35 VOLTS
HEATER CURRENT  0.45 AMP.
PLATE VOLTAGE  60  175 VOLTS
GRID #2 VOLTAGE  100  175 VOLTS
GRID #4 VOLTAGE  0  -30 VOLTS
PLATE RESISTANCE (APPROX.)  ---  7 200 OHMS
TRANSDUCEDRANCE  ---  7 700 WATTS
PLATE CURRENT  250  75 MA.
GRID #2 CURRENT  21  5.5 MA.
GRID #4 VOLTAGE (APPROX.)  FOR IB = 1.0 MA.  ---  -55 VOLTS
TRIODE AMPLIFICATION FACTOR E  ---  3.9

A UNLESS OTHERWISE SPECIFIED.

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 SHOWN TO EXCEED 35 PERCENT OF A SCAN CYCLE.

C 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 VERY SHORT INTERVAL SO AS NOT TO DAMAGE TUBE.

E TRIODE CONNECTION (SCREEN TIED TO PLATE) WITH E3 = E42 = 175 VOLTS AND E42 = -30 VOLTS.

* 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.

SIMILAR TYPE REFERENCE: Except for heater ratings and heater warm-up time, the 35CD6GA is identical to the 5CD6GA.