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
HORIZONTAL DEFLECTION AMPLIFIER

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 TOTAL DC AND PEAK 100 VOLTS
MAXIMUM DC PLATE SUPPLY VOLTAGE (BOOST + DC POWER SUPPLY) 700 VOLTS
MAXIMUM PEAK POSITIVE PULSE PLATE VOLTAGE (ABS. MAX.) 6000 VOLTS
MAXIMUM PEAK NEGATIVE PULSE PLATE VOLTAGE 1500 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 C 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

AUNLESS 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 BIASE, 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
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 9000 $\mu$MOS
PLATE RESISTANCE (APPROX.) 4000 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

AVERAGE CHARACTERISTICS

$E_f = 25.0 \text{ Volts}$

$E_c = 0 \text{ Volts}$

Plate Milliamperes vs. Plate Volts

25DN6

AVERAGE CHARACTERISTICS

$E_f = 25.0 \text{ Volts}$

$E_b = 125 \text{ Volts}$

Plate Milliamperes vs. Grid #1 Volts
25DN6

AVERAGE CHARACTERISTICS

$E_f = 25.0$ Volts
$E_b = 125$ Volts

GRID #1 VOLTS

GRID #2 MILLIAMPERES

$E_{c2} = 125$