

Sept. 1, 1967

QUICK REFERENCE DATA

114° MAGNETIC DEFLECTION
13.250" × 16.875" MIN. SCREEN SIZE
4.375" NECK LENGTH

BANDED
IMPLOSION PROTECTION
6.3 VOLT, 450 MA HEATER

ALUMINIZED SCREEN
30 VOLT GRID 2
SPHERICAL GRAY FILTER GLASS

DETAILED DATA

ELECTRICAL

Focusing Method Low Voltage Electrostatic
Deflection Method Magnetic
Deflection Angles (Approx.):
Diagonal 114 Degrees
Horizontal 102 Degrees
Vertical 85 Degrees
Direct Interelectrode Capacitances:
Cathode to All Other Electrodes (Approx.) 5 pF
Grid No. 1 to All Other Electrodes (Approx.) 6 pF
External Conductive Coating to Anode:
Minimum 1300 pF
Maximum 2000 pF
Heater Current at 6.3 Volts 450 ± 5% mA
Heater Warm-up Time (Note 1) 11 Seconds

OPTICAL

Phosphor Number Aluminized P4
Light Transmittance at Center (Approx.) 46%

MECHANICAL

Over-all Length 12.656" ± 0.281"
Neck Length 4.375" ± 0.125"
Greatest Dimensions of Tube:
Diagonal 20.759" ± 0.100"
Width 18.168" ± 0.100"
Height 14.686" ± 0.100"
Minimum Useful Screen Dimensions (Projected):
Diagonal 19.625"
Horizontal Axis 16.875"
Vertical Axis 13.250"
Area 212 Sq. Inches
Implosion Protection Banded
Bulb EIA J165 1/4A1
Bulb Contact EIA J1-21
Base EIA B7-208
Basing EIA 8HR
Net Weight 23 Pounds

RATINGS

Design Maximum System

Unless Otherwise Specified, Voltage Values are Positive and Measured with Respect to Grid 1.

Maximum Anode Voltage (Note 2) 23500 Volts
Minimum Anode Voltage (Note 2) 12000 Volts
Maximum Grid 4 (Focusing Electrode) Voltage +1100, -550 Volts
Maximum Grid 2 Voltage 60 Volts
Minimum Grid 2 Voltage 20 Volts
Cathode Voltage:
Maximum Negative Bias Value 0 Volts
Maximum Negative Peak Value 2 Volts
Maximum Positive Bias Value 154 Volts
Maximum Positive Peak Value 220 Volts
Maximum Heater-Cathode Voltage:
Heater Negative with Respect to Cathode:
During Warm-up Period not to Exceed 15 Seconds 450 Volts
After Equipment Warm-up Period 200 Volts
Heater Positive with Respect to Cathode 200 Volts

LIMITING CIRCUIT VALUES

Maximum Grid 1 Circuit Resistance 1.5 Megohms
Minimum Grids 2 & 4 Circuit Resistance (Note 3) 10000 Ohms

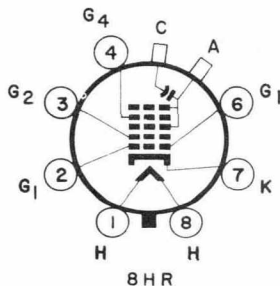
TYPICAL CATHODE DRIVE OPERATION

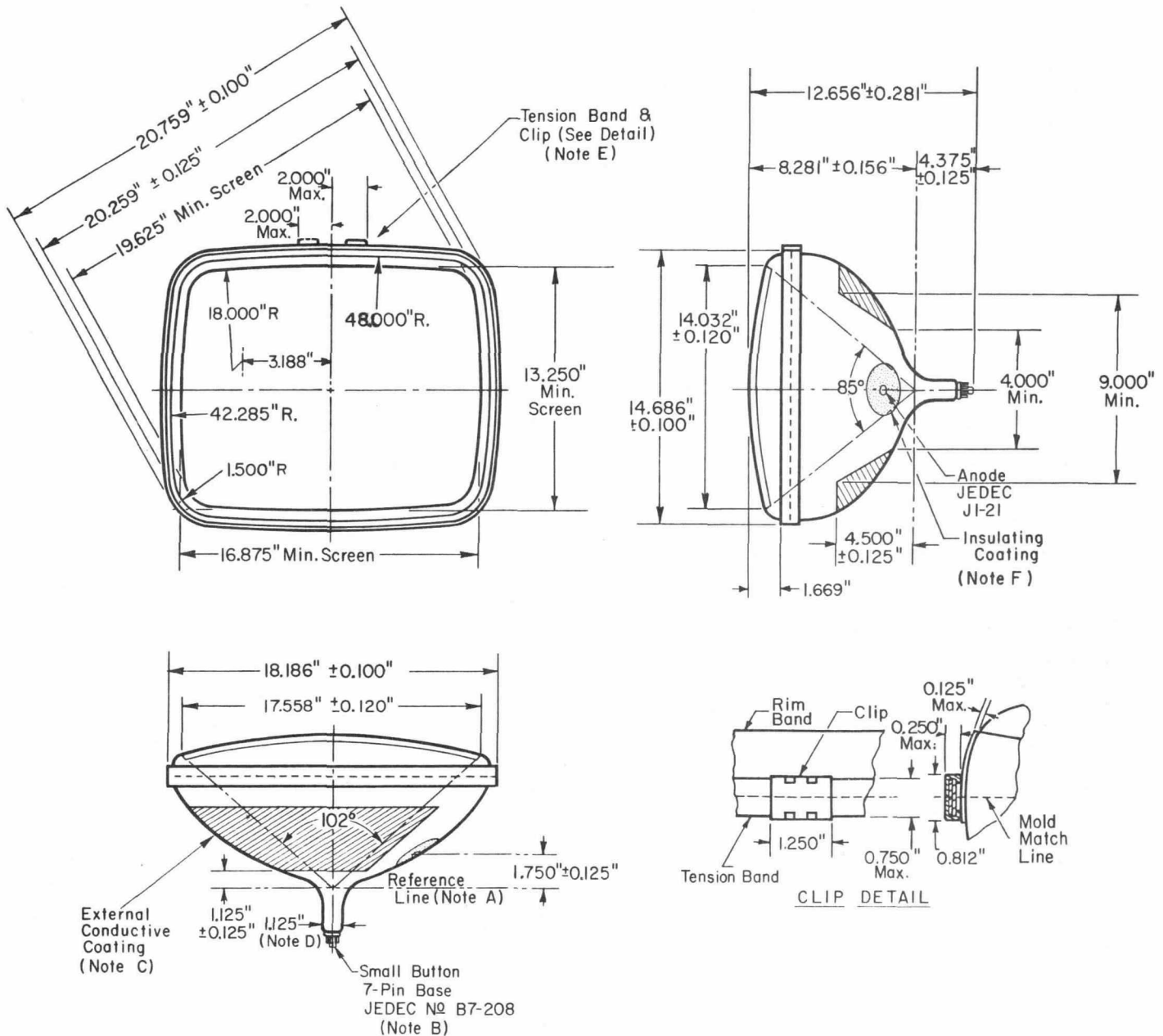
Unless Otherwise Specified, all Voltage Values are Positive with Respect to Grid 1.

Anode Voltage (Note 2) 16000 Volts
Grid 4 Voltage (Focusing Electrode) 0 to 400 Volts
Grid 2 Voltage 30 Volts
Cathode Voltage for Raster Cutoff 30 to 45 Volts

NOTES

1. Heater warm-up time is defined as the time required for the voltage across the heater to reach 80% of its rated value after applying 4 times rated heater voltage to a circuit consisting of the tube heater in series with a resistance equal to 3 times rated heater voltage divided by rated heater current.
2. Operation with voltage in excess of 16KV may require shielding to limit radiation of very soft X-rays.
3. Protective resistance in the grids 2 & 4 circuits is advisable to prevent damage.





- A. Yoke Reference Line is determined by plane surface of flared end of JEDEC Reference Line Gauge No. 126 when seated on funnel of tube. With a minimum neck length tube, the PM centering magnet (0 to 8 gauss) should extend no more than 2.75" from Yoke Reference Line.
- B. Lateral strains on base pins must be avoided. The socket should have flexible leads permitting movement. The perimeter of the base wafer will be inside a 1.75" diameter circle concentric with tube axis. Base pin 4 aligns with major axis with in 30° and is on same side as anode terminal.
- C. External conductive coating forms supplementary filter capacitance and must be rounded.
- D. Neck diameter may be a maximum of 1.168" at the splice.
- E. Tension band must be grounded.
- F. Transparent insulating coating, 3" in diameter. Clean only with a soft, dry, lintless cloth.

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