

## CHARACTERISTICS

### GENERAL DATA

Focusing Method . . . . .	Electrostatic
Deflecting Method . . . . .	Magnetic
Deflection Angle	
Horizontal . . . . .	85 Degrees
Diagonal . . . . .	90 Degrees
Phosphor . . . . .	Aluminized P4
Fluorescence . . . . .	White
Persistence . . . . .	Short to Medium
Faceplate . . . . .	Gray Filter Glass
Light Transmittance (approx.) . . . . .	74 Percent

### ELECTRICAL DATA

Heater Voltage . . . . .	6.3 Volts
Heater Current . . . . .	0.6 ± 5% Ampere
Heater Warm-up Time <sup>1</sup> . . . . .	11 Seconds
Direct Interelectrode Capacitances (approx.)	
Cathode to All Other Electrodes . . . . .	5 μμf
Grid No. 1 to All Other Electrodes . . . . .	6 μμf
External Conductive Coating to Anode <sup>2</sup> . . . . .	2500 μμf Max. 1700 μμf Min.
Ion Trap Magnet . . . . .	External, Single Field Type

### MECHANICAL DATA

Minimum Useful Screen Dimensions . . . . .	21 <sup>7</sup> / <sub>16</sub> " x 16 <sup>7</sup> / <sub>8</sub> " Inches
Minimum Useful Screen Area . . . . .	332 Sq. Inches
Bulb . . . . .	J192A or J192B
Bulb Contact (Recessed Small Cavity Cap) . . . . .	J1-21
Base (Small Shell Duodecal 6-Pin) . . . . .	B6-63
Basing . . . . .	12L

## RATINGS

### MAXIMUM RATINGS (Absolute Maximum Values)

Anode Voltage . . . . .	22,000 Volts	dc
Grid No. 4 Voltage (Focusing Electrode) . . . . .	-550 to +1100 Volts	dc
Grid No. 2 Voltage . . . . .	550 Volts	dc
Grid No. 1 Voltage		
Negative Bias Value . . . . .	155 Volts	dc
Negative Peak Value . . . . .	220 Volts	
Positive Bias Value . . . . .	0 Volts	dc
Positive Peak Value . . . . .	2 Volts	
Peak 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	

### TYPICAL OPERATING CONDITIONS

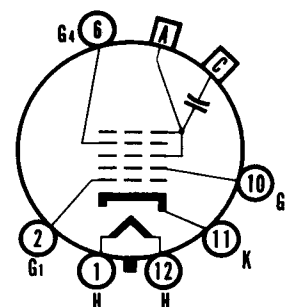
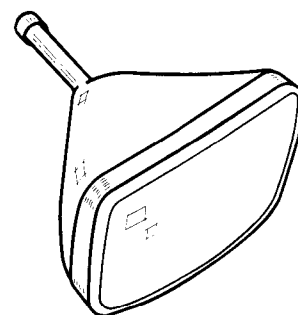
Anode Voltage . . . . .	18,000 Volts	dc
Grid No. 4 Voltage . . . . .	-72 to +396 Volts	dc
Grid No. 2 Voltage . . . . .	300 Volts	dc
Grid No. 1 Voltage Required for Cutoff <sup>3</sup> . . . . .	-35 to -72 Volts	dc
Ion Trap Magnet Current (Average) <sup>4</sup> . . . . .	33 Ma	dc
Field Strength of PM Ion Trap Magnet <sup>5</sup> . . . . .	37 Gauss	Min.

### CIRCUIT VALUES

Grid No. 1 Circuit Resistance . . . . .	1.5 Megohms	Max.
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## QUICK REFERENCE DATA

Television Picture Tube  
24" Direct Viewed  
Rectangular Glass Type  
Spherical Faceplate  
Gray Filter Glass  
Magnetic Deflection  
Electrostatic Focus  
Single Field Ion Trap  
External Conductive Coating  
Aluminized Screen



12-1

SYLVANIA ELECTRIC  
PRODUCTS INC.

TELEVISION PICTURE TUBE  
DIVISION

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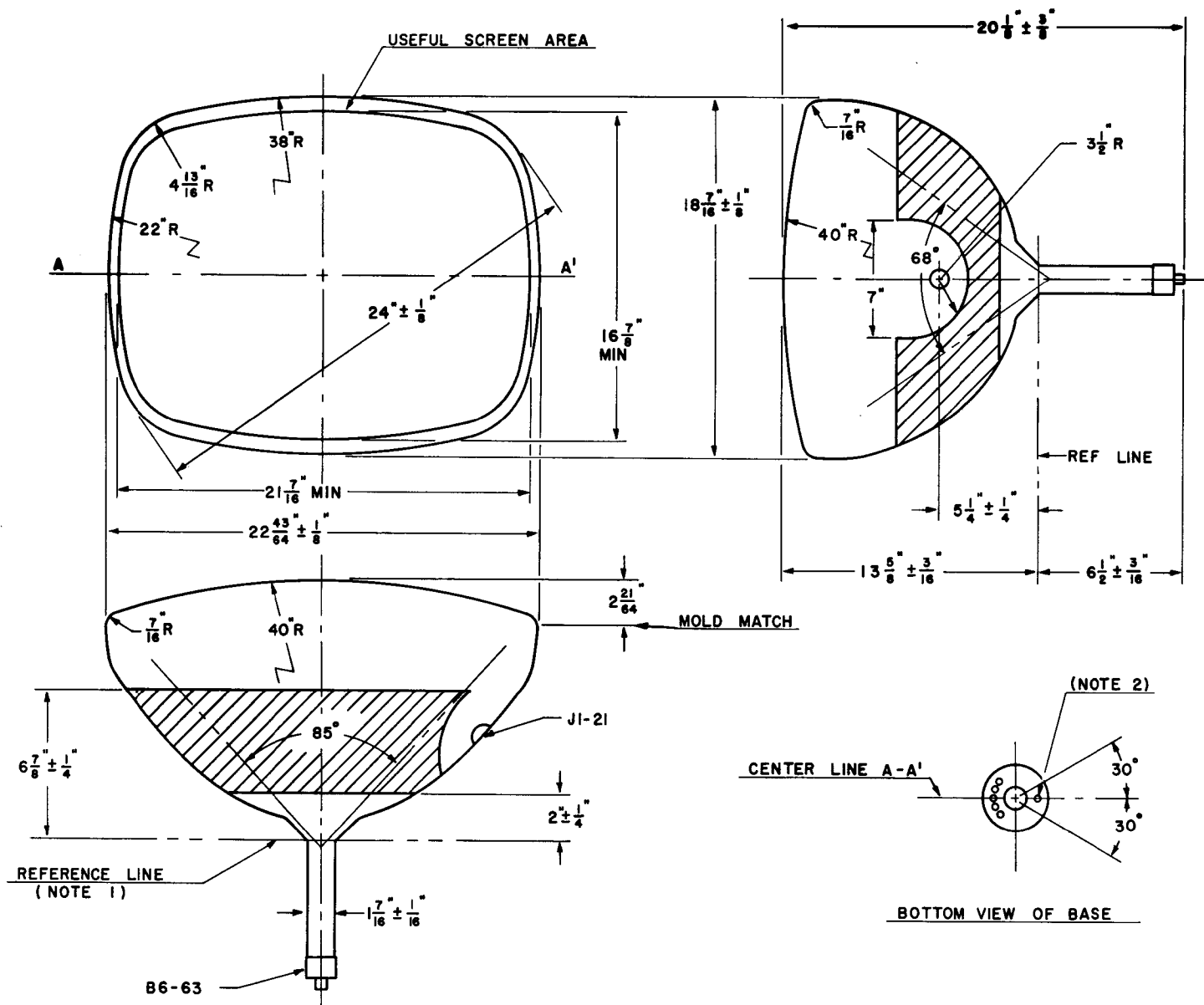
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**NOTES:**

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 four (4) times rated heater voltage to a circuit consisting of the tube heater in series with a resistance equal to three (3) times rated heater voltage divided by rated heater current.*
2. *External conductive coating must be grounded.*
3. *Visual extinction of focused raster. Extinction of stationary focused spot will require that these values be about 5 volts more negative.*
4. *For JETEC Ion Trap Magnet No. 117 with pole pieces centered over Grid No. 2 on mount and rotated for maximum brightness.*
5. *For typical PM ion trap magnet with field strength tolerance of  $\pm 3$  gauss.*

**WARNING:**

*X-ray radiation shielding may be necessary to protect against possible danger of personal injury from prolonged exposure at close range if this tube is operated at higher than the manufacturer's Maximum Rated Anode Voltage or 16,000 volts, whichever is less.*



S57027A

**DIAGRAM NOTES:**

1. Reference line is determined by the plane C-C' of the reference line gauge (JETEC No. 116) when the gauge is resting on the glass cone.
2. Pin No. 6 aligns with horizontal centerline of tube within  $30^\circ$  and is on same side as anode contact.

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