

from JETEC release  
#2317, Nov. 17, 1958

**ADVANCE DATA**  
CHARACTERISTICS

QUICK REFERENCE DATA

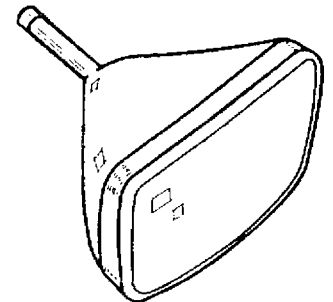
GENERAL DATA

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

Television Picture Tube  
17" Direct Viewed  
Rectangular Glass Type  
Spherical Faceplate  
Gray Filter Glass  
Magnetic Deflection  
Electrostatic Focus  
Single Field Ion Trap  
External Conductive  
Coating  
Aluminized Screen  
6.3 Volt, 300 Ma Heater

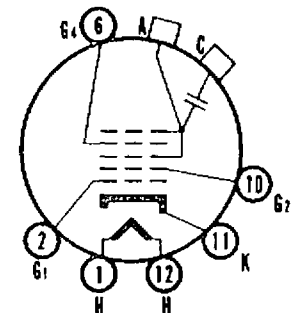
ELECTRICAL DATA

Heater Voltage	6.3	Volts
Heater Current	0.3 ± 5%	Ampere
Heater Warm-up Time <sup>1</sup>	11	Seconds
Direct Interelectrode Capacitance (Approx.)		
Cathode to All Other Electrodes	5	µuf
Grid No. 1 to All Other Electrodes	6	µuf
External Conductive Coating to Anode <sup>2</sup>	1500	µuf Max.
	1000	µuf Min.
Ion Trap Magnet	External, Single Field Type	



MECHANICAL DATA

Minimum Useful Screen Dimensions	14 5/16 x 11 1/8	Inches
Minimum Useful Screen Area	149	Sp. Inches
Bulb	J133F or J133G	
Bulb Contact (Recessed Small Cavity Cap)	J1-21	
Base (Small Shell Duodecal 6-Pin)	B6-63	
Basing	12L	
Weight (Approx.)	13	Pounds



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RATINGS

MAXIMUM RATINGS (Absolute Maximum Values)

Anode Voltage	17,600	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

SYLVANIA ELECTRIC  
PRODUCTS INC.

Picture Tube Operations  
SENECA FALLS, NEW YORK

Prepared and Released By The  
TECHNICAL PUBLICATIONS SECTION  
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TYPICAL OPERATING CONDITIONS

Anode Voltage	14,000	Volts	dc
Grid No. 4 Voltage	-50 to +300	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 (Avg.) <sup>4</sup>	28	Ma	dc
Field Strength of PM Ion Trap Magnet <sup>5</sup>	31	Gausses	Min.

CIRCUIT VALUES

Grid No. 1 Circuit Resistance	1.5	Megohms	Max.
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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 #2.
5. For typical PM Ion Trap Magnet with field strength tolerance of  $\pm 3$  gaussses.

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.

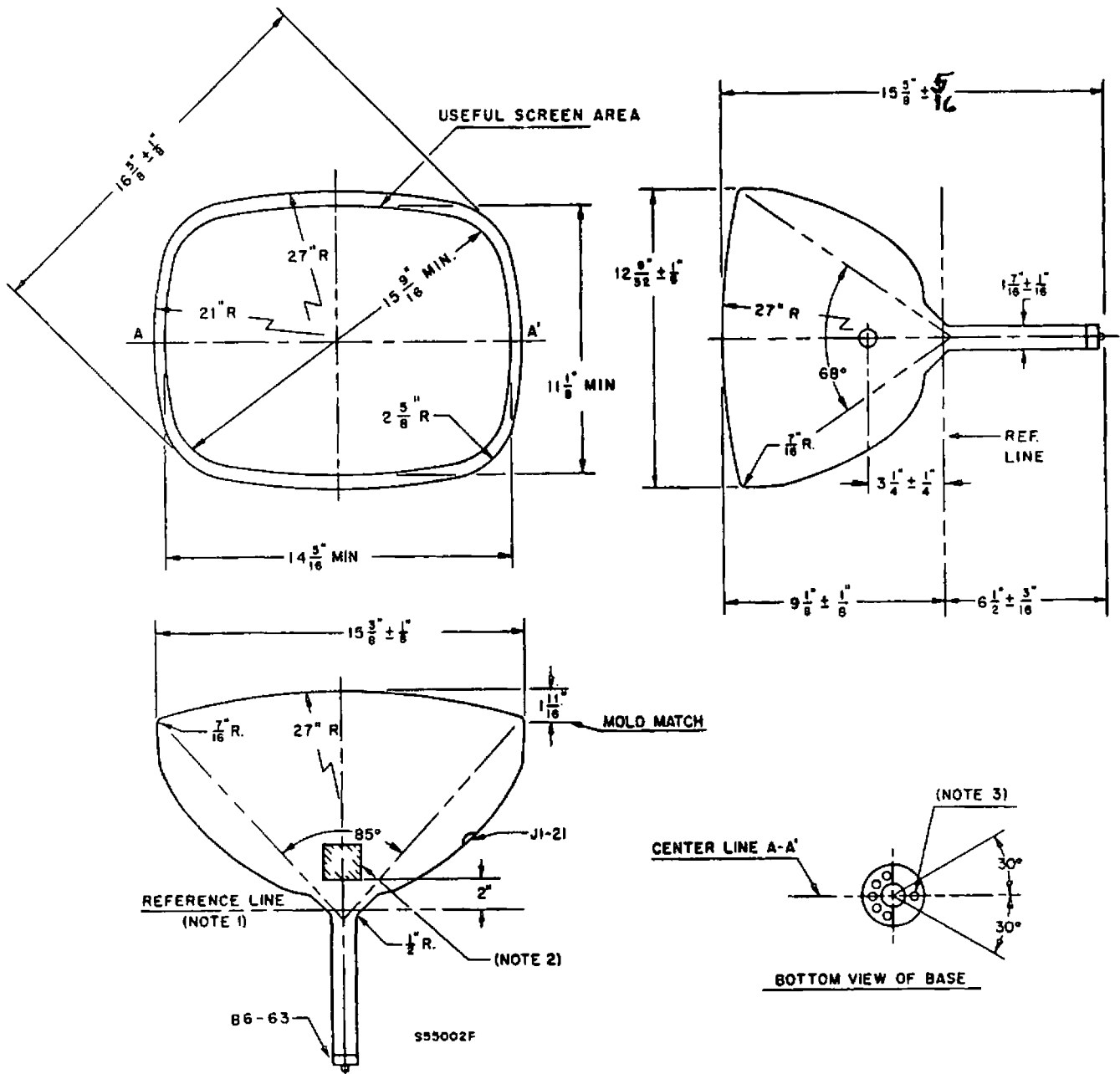


DIAGRAM NOTES:

1. Reference line is determined by the planes C-C' of the Reference Line Gauge (JETEC No. 116) when the gauge is seated on the glass cone.
2. Contact area for external conductive coating 2" x 2", located 90 degrees counterclockwise from anode contact as viewed from base end of tube.
3. Anode contact aligns with pin position No. 6 ± 30 degrees.