



engineering data service

SYLVANIA

24ASP4

ADVANCE DATA CHARACTERISTICS

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

ELECTRICAL DATA

Heater Voltage	6.3 Volts	
Heater Current	$0.30 \pm 5\%$ Ampere	
Heater Warm-up Time 1	11 Seconds	
Direct Interelectrode Capacitances (approx.)		
Cathode to All Other Electrodes	5 μf	
Grid No. 1 to All Other Electrodes	6 μf	
External Conductive Coating to Anode 2	2500 μf	Max.
	1700 μf	Min.

MECHANICAL DATA

Minimum Useful Screen Dimensions (Maximum Assured)	21 7/16 x 16 7/8	Inches
Minimum Useful Screen Area	332	Sq. Inches
Bulb	J192A or J192B	
Bulb Contact (Recessed Small Cavity Cap)	J1-21	
Base	B6-63	
Basing	12L	

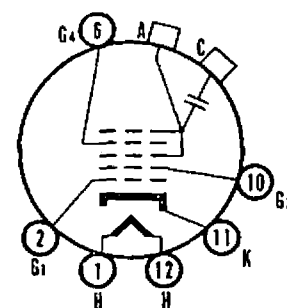
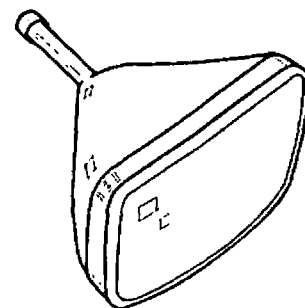
RATINGS

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	

QUICK REFERENCE DATA

Television Picture Tube
24" Direct Viewed
Rectangular Glass Type
Spherical Faceplate
Gray Filter Glass
Aluminized Screen
Electrostatic Focus
90° Magnetic Deflection
Short Neck Tube
No Ion Trap
External Conductive Coating
6.3 Volt, 300 Ma Heater



12-1

SYLVANIA ELECTRIC
PRODUCTS INC.

TELEVISION PICTURE TUBE
DIVISION

SENECA FALLS, NEW YORK

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TYPICAL OPERATING CONDITIONS

Anode Voltage	18,000	Volts	dc
Grid No. 4 Voltage for Focus	0 to +400	Volts	dc
Grid No. 2 Voltage	300	Volts	dc
Grid No. 1 Voltage Required for Cutoff ³	-35 to -72	Volts	dc

CIRCUIT VALUES

Grid No. 1 Circuit Resistance	1.5 Megohms Max.
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NOTES:

1. Heater warm-up time is the time required for the voltage across the heater terminals 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. 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.

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.

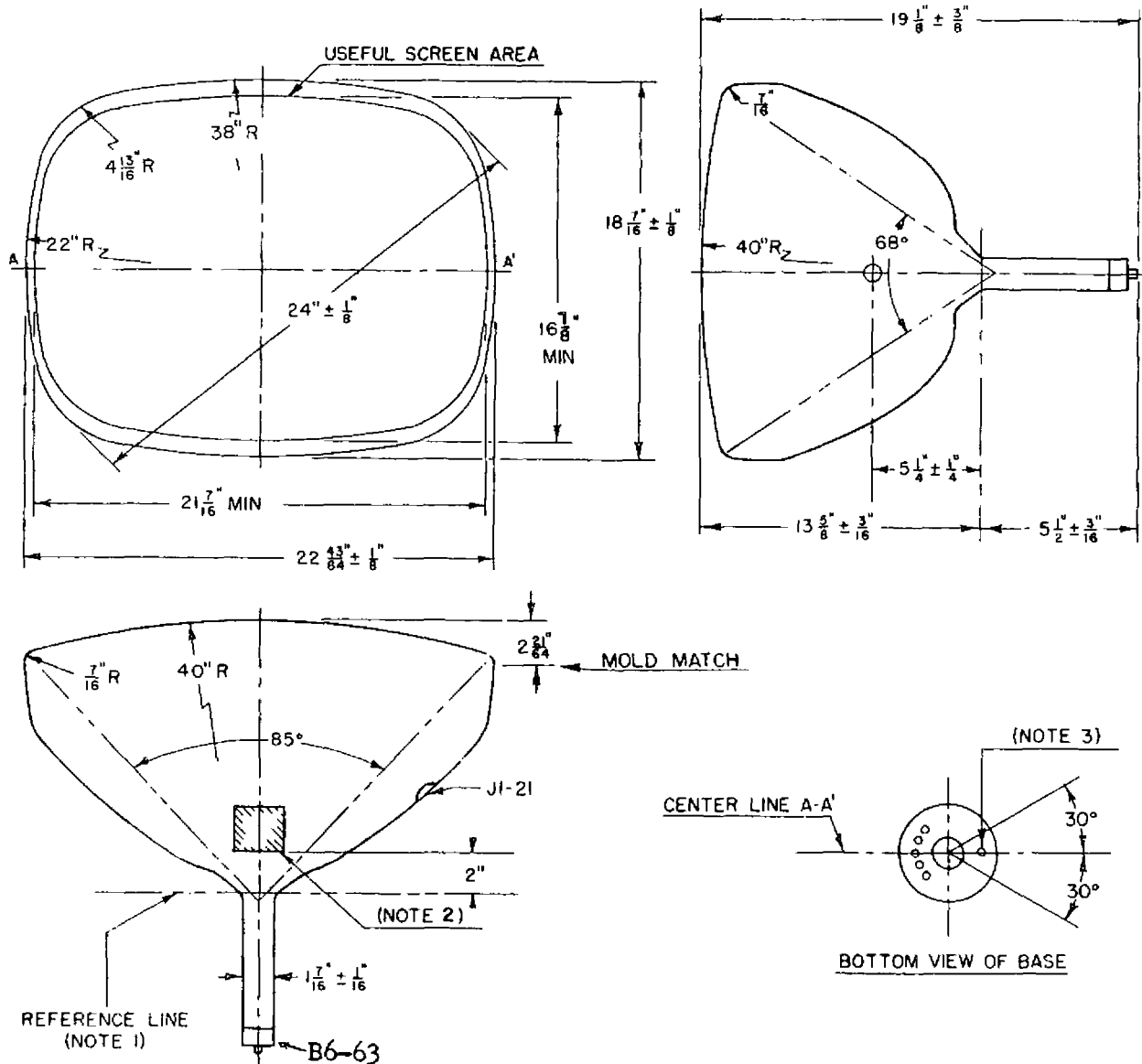


DIAGRAM NOTES:

1. Reference line is determined by the plane C-C1 of the reference line gauge (JETEC No. 116) when the gauge is seated against the bulb.
2. Contact area for external conductive coating, 2" x 2", located 90° counterclockwise from anode contact as viewed from base end of tube.
3. Anode contact aligns with pin position No. 6 ± 30 degrees.