



# engineering data service

24AXP4

from JETEC release  
#2271, Sept. 2, 1958

## ADVANCE DATA

### CHARACTERISTICS

#### GENERAL DATA

Focusing Method	Electrostatic
Deflection Method	Magnetic
Deflection Angles (approx.)	
Horizontal	105 Degrees
Diagonal	110 Degrees
Vertical	87 Degrees
Phosphor	Aluminized P4
Fluorescence	White
Persistence	Short to Medium
Faceplate	Gray Filter Glass
Light Transmittance (approx.)	75 Percent

#### ELECTRICAL DATA

Heater Voltage	6.3	Volts
Heater Current	0.30 ± 5%	Ampere
Heater Warm-up Time <sup>1</sup>	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 <sup>2</sup>	2500	μf Max.
	1700	μf Min.

#### MECHANICAL DATA

Minimum Useful Screen Dimensions (Maximum Assured)		
Height	16 7/8	Inches
Width	21 7/16	Inches
Diagonal	22 13/16	Inches
Area	332	Sq. Inches
Bulb	J192C or J192D	
Bulb Contact (Recessed Small Cavity Cap)	J1-21	
Base	B7-183	
Basing	8HR	
Weight (approx.)	26 1/2	Pounds

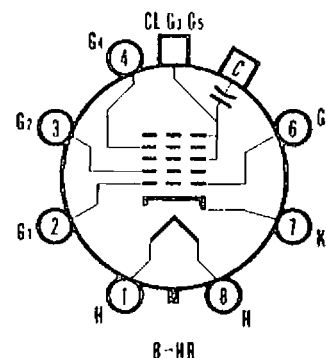
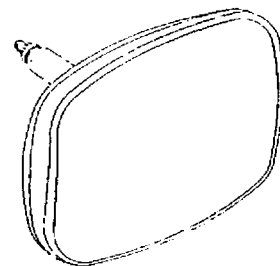
#### RATINGS

##### MAXIMUM RATINGS (Absolute Maximum Values)

Anode Voltage	22000	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	154	Volts	dc
Negative Peak Value	220	Volts	
Positive Bias Value	0	Volts	dc
Positive Peak Values	2	Volts	

#### QUICK REFERENCE DATA

Television Picture Tube  
24" Direct Viewed  
Rectangular Glass Type  
Lightweight Tube  
Spherical Faceplate  
Gray Filter Glass  
Aluminized Screen  
Electrostatic Focus  
110° Magnetic Deflection  
1 1/8" Neck Diameter  
No Ion Trap  
External Conductive Coating  
6.3 Volt, 300 Ma. Heater



SYLVANIA ELECTRIC  
PRODUCTS INC.

TELEVISION PICTURE TUBE  
DIVISION  
SENECA FALLS, NEW YORK

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Peak Heater-Cathode Voltage

Heater Negative with Respect to Cathode  
During Warm-up Period Not to  
Exceed 15 Seconds  
After Equipment Warm-up Period  
Heater Positive with Respect to Cathode

450 Volts  
200 Volts  
200 Volts

TYPICAL OPERATING CONDITIONS

Anode Voltage	16,000	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 <sup>3</sup>	-35 to -72	Volts	dc

CIRCUIT VALUES

Grid No. 1 Circuit Resistance 1.5 Megohms Max.

NOTES:

1. Heater warm-up time is defined as the time required for the voltage across the heater to reach 80% of the rated heater voltage 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 the rated heater voltage divided by the 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.

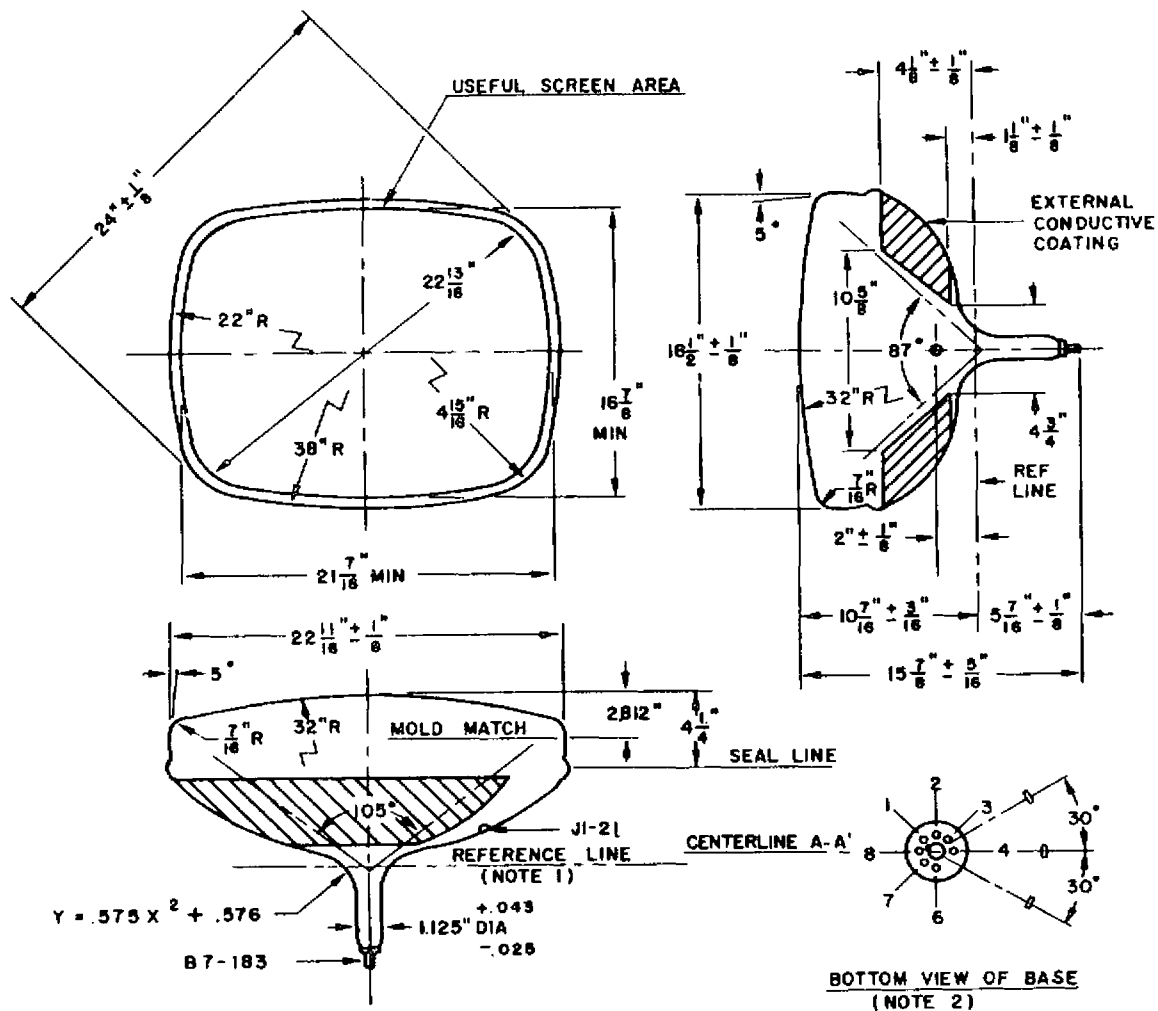


DIAGRAM NOTES:

1. Reference line is determined by plane C-C' of JETEC No. 126 Reference Line Gauge, when the gauge is seated against the bulb.
2. Base pin No. 4 aligns with horizontal centerline within 30°, and is on same side as anode contact (J1-21).