

CHARACTERISTICS

GENERAL DATA

Focusing Method	Electrostatic
Deflection Method	Magnetic
Deflection Angles (Approx.)	
Horizontal	103 Degrees
Diagonal	114 Degrees
Vertical	88 Degrees
Phosphor	Aluminized P4
Fluorescence	White
Persistence	Medium Short
Faceplate	Bonded Shield
(Gray Filter Glass Safety Plate Laminated Directly to Face of Tube)	
Light Transmittance of Faceplate Assembly (Approx.)	60 Percent

ELECTRICAL DATA

Heater Voltage	6.3 Volts	
Heater Current	0.30 ± 5 % Ampere	
Heater Warm-up Time ¹	11 Seconds	
Direct Interelectrode Capacitances (Approx.)		
Cathode to All Other Electrodes	5 pf	
Grid No. 1 to All Other Electrodes	6 pf	
External Conductive Coating to Anode ²	1200 pf	Max.
	800 pf	Min.

MECHANICAL DATA

Minimum Useful Screen Dimensions (Maximum Assured)	
Height	10 1/4 Inches
Width	12 15/16 Inches
Diagonal	14 7/8 Inches
Minimum Useful Screen Area	125 Sq. Inches
Neck Length	4 3/8 ± 1/8 Inches
Overall Length	10 11/16 ± 5/16 Inches
Bulb	J125A
Safety Plate	FP125A
Bulb Contact (Recessed Small Cavity Cap)	J1-21
Base	B7-208
Basing	8HR
Weight (Approx.)	9 1/2 Pounds

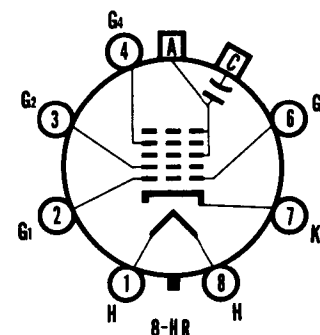
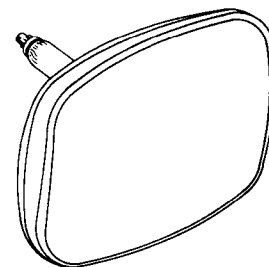
RATINGS

MAXIMUM RATINGS (Design Maximum Values)

Cathode Drive Service ³		
Anode Voltage		
Maximum	18,000 Volts	dc
Minimum	10,000 Volts	dc
Grid No. 4 Voltage (Focusing Electrode)	-400 to +1250 Volts	dc
Grid No. 2 Voltage	70 Volts	dc
Cathode Voltage		
Positive Bias Value	100 Volts	dc
Positive Peak Value	150 Volts	
Negative Bias Value	0 Volt	dc
Negative 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
16" Direct Viewed
Rectangular Glass Type
Bonded Shield
Gray Filter Glass
Aluminized Screen
Electrostatic Focus
Low Grid No. 2 Voltage
114° Magnetic Deflection
No Ion Trap
External Conductive Coating
6.3 Volt/300 Ma Heater



SYLVANIA ELECTRONIC TUBES

A Division of
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PICTURE TUBE OPERATIONS

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File Under

TELEVISION PICTURE TUBES

TYPICAL OPERATING CONDITIONS

Cathode Drive Service ³		
Anode Voltage	14,000 Volts	dc
Grid No. 4 Voltage for Focus	0 to 400 Volts	dc
Grid No. 2 Voltage	50 Volts	dc
Cathode Voltage Required for Cutoff ⁴	+30 to +48 Volts	dc

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 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. Voltages are positive with respect to Grid No. 1 unless indicated otherwise.
4. Visual extinction of focused raster. For cutoff of the undeflected focused spot, the absolute value of the bias between cathode and grid will increase by about 5 volts.

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.

Technical drawing of a B7-208 base, showing side, front, and bottom views with dimensions and labels.

Side View (Top):

- Overall width: $15\frac{5}{8} \pm \frac{1}{8}$
- Top radius: $12R$
- Inner radius: $30R$
- Bottom radius: $40R$
- Inner corner radius: $1\frac{1}{4}R$
- Useful Screen Area: Indicated by a dashed line.
- Height from top to bottom of screen area: $10\frac{1}{4}$ MIN.
- Height from bottom of screen area to base: $11\frac{3}{32} \pm \frac{1}{8}$
- Bottom radius: $25\frac{7}{8}R$
- Angle: 88°
- Material: J1-21
- External Conductive Coating: Indicated by hatching.
- Reference Line: Indicated by a dashed line.
- Dimensions: $3\frac{1}{2} \pm \frac{1}{4}$, $1\frac{1}{8} \pm \frac{1}{8}$, $1\frac{1}{2} \pm \frac{1}{8}$, $6\frac{5}{16} \pm \frac{3}{16}$, $4\frac{3}{8} \pm \frac{1}{8}$, $10\frac{11}{16} \pm \frac{5}{16}$

Front View (Bottom):

- Width: $12\frac{15}{16}$ MIN.
- Height: $13\frac{45}{64} \pm \frac{1}{8}$
- Radius: $5 \pm \frac{1}{4}$
- Radius: $25\frac{7}{8}R$
- Angle: 103°
- Mold Match: Indicated by hatching.
- Seal Line: Indicated by a dashed line.
- Reference Line: Indicated by a dashed line.
- Equation: $Y = 575X^2 + .576$
- Base: B7-208 BASE
- Dimensions: $3 \pm \frac{1}{16}$, $1\frac{13}{16}$, $7\frac{7}{16}$

Bottom View of Base (NOTE-2):

- Centerline-AA'
- Angles: 30°
- Dimensions: $1.125 \pm \frac{0.043}{-.025}$ O.D.
- Material: B7-208 BASE

1. Reference line is determined by plane C-C' of JEDEC No. 126 Reference Line Gauge when the gauge is seated against the bulb.
2. Base Pin No. 4 aligns with vertical centerline (A-A') within 30° and is on same side as anode contact (J1-21).
3. Dimensions are in inches.