

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.)	78 Percent

ELECTRICAL DATA

Heater Voltage	6.3 Volts	
Heater Current	0.6 Ampere	
Heater Warm-up Time ¹	11 Seconds	
Direct Interelectrode Capacitance (Approx.)		
Cathode to All Other Electrodes	5 $\mu\mu\text{f}$	
Grid No. 1 to All Other Electrodes	6 $\mu\mu\text{f}$	
External Conductive Coating to Anode ²	1500 $\mu\mu\text{f}$	Max.
	1000 $\mu\mu\text{f}$	Min.

MECHANICAL DATA

Minimum Useful Screen Dimensions	
(Maximum Assured)	14 $\frac{3}{4}$ x 11 $\frac{11}{16}$ Inches
Minimum Useful Screen Area	155 Sq. Inches
Neck Length	4 $\frac{1}{8}$ Inches
Overall Length	11 $\frac{1}{4}$ Inches
Bulb	J132 $\frac{1}{2}$ A or J132 $\frac{1}{2}$ B
Bulb Contact (Recessed Small Cavity Cap)	J1-21
Base	B7-208
	8HR
Weight (Approx.)	10 Pounds

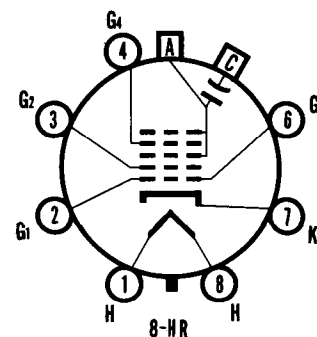
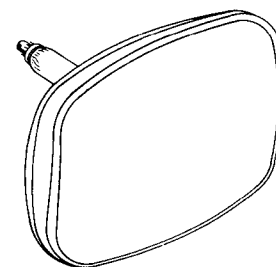
RATINGS

MAXIMUM RATINGS (Design Maximum Values)³

Anode Voltage	18,000 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	154 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
17" Direct Viewed
Rectangular Glass Type
Lightweight Tube
Spherical Faceplate
Gray Filter Glass
Aluminized Screen
Electrostatic Focus
110° Magnetic Deflection
4 $\frac{1}{8}$ " Neck
No Ion Trap
External Conductive Coating



SYLVANIA ELECTRONIC TUBES

A Division of
Sylvania Electric Products Inc.

PICTURE TUBE OPERATIONS SENECA FALLS, NEW YORK

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File Under
TELEVISION PICTURE TUBES

TYPICAL OPERATING CONDITIONS

Grid Drive Service ³		
Anode Voltage	14,000 Volts	dc
Grid No. 4 Voltage for Focus	0 to 400 Volts	dc
Grid No. 2 Voltage	400 Volts	dc
Grid No. 1 Voltage Required for Cutoff ⁴	-45 to -90 Volts	dc
Cathode Drive Service ⁵		
Anode Voltage	14,000 Volts	
Grid No. 4 Voltage for Focus	0 to 400 Volts	
Grid No. 2 Voltage	450 Volts	
Cathode Voltage Required for Cutoff ⁴	+46 to +85 Volts	

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 cathode unless indicated otherwise.
4. Visual extinction of focused raster. Extinction of stationary focused spot will require that these values be increased about 5 volts.
5. Voltages are positive with respect to Grid No. 1 unless indicated otherwise.

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 base assembly, showing top, side, and bottom views with dimensions and labels.

Top View:

- Overall width: $16 \frac{9}{16} \pm \frac{1}{8}$
- Overall height: $12 \frac{3}{4} \pm \frac{1}{8}$
- Inner width: $14 \frac{3}{4}$ MIN
- Inner height: $11 \frac{11}{16}$ MIN
- Radius: $15 \frac{27}{32}$ R.
- Radius: $20 \frac{5}{8}$ R.
- Radius: $3 \frac{1}{8}$ R.
- Minimum distance: $15 \frac{3}{4}$ MIN
- Label: "USEFUL SCREEN AREA"

Side View:

- Angle: 3°
- Angle: 87°
- Height: $5 \pm \frac{1}{4}$
- Label: "EXTERNAL CONDUCTIVE COATING"
- Label: "REF. LINE"
- Width: $3 \frac{5}{16} \pm \frac{1}{8}$
- Width: $1 \frac{1}{8} \pm \frac{1}{8}$
- Width: $11 \frac{1}{4} \pm \frac{1}{4}$
- Width: $7 \frac{1}{8} \pm \frac{1}{8}$
- Width: $4 \frac{1}{8} \pm \frac{1}{8}$
- Width: $1 \frac{13}{16} \pm \frac{1}{8}$

Bottom View:

- Radius: $1 \frac{1}{2}$ R.
- Angle: 105°
- Radius: $20 \frac{3}{4}$ R.
- Label: "SEAL LINE"
- Label: "J1-21"
- Label: "REFERENCE LINE (NOTE 2)"
- Label: "Y = .575 X² + .576"
- Label: "1.125" DIA. +.043" -.025"
- Label: "BASE B7-208"
- Label: "CENTER LINE A-A"

Bottom View of Base (NOTE 1):

- Shows a circular base with 8 mounting points (1-8).
- Angles: 30° and 30° .

Dimensions:

- $16 \frac{9}{16} \pm \frac{1}{8}$
- $12 \frac{3}{4} \pm \frac{1}{8}$
- $11 \frac{11}{16}$ MIN
- $14 \frac{3}{4}$ MIN
- $15 \frac{27}{32}$ R.
- $20 \frac{5}{8}$ R.
- $3 \frac{1}{8}$ R.
- $15 \frac{3}{4}$ MIN
- $1 \frac{1}{8}$ MAX
- $3 \frac{5}{16} \pm \frac{1}{8}$
- $1 \frac{1}{8} \pm \frac{1}{8}$
- $11 \frac{1}{4} \pm \frac{1}{4}$
- $7 \frac{1}{8} \pm \frac{1}{8}$
- $4 \frac{1}{8} \pm \frac{1}{8}$
- $1 \frac{13}{16} \pm \frac{1}{8}$
- $1 \frac{1}{2}$ R.
- 105°
- $20 \frac{3}{4}$ R.
- 1.125 DIA. +.043" -.025"
- $1 \frac{1}{16}$ MAX
- $1 \frac{1}{16}$ MAX
- 2.750
- 30°
- 30°

Labels:

- USEFUL SCREEN AREA
- EXTERNAL CONDUCTIVE COATING
- REF. LINE
- SEAL LINE
- J1-21
- REFERENCE LINE (NOTE 2)
- Y = .575 X² + .576
- BASE B7-208
- CENTER LINE A-A
- BOTTOM VIEW OF BASE (NOTE 1)

Notes:

- NOTE 1: BOTTOM VIEW OF BASE
- NOTE 2: REFERENCE LINE

Part Number: 060013

1. Base Pin No. 4 aligns with anode contact (J1-21) within 30°.
2. Reference line is determined by plane C-C' of JEDEC No. 126 Reference Line Gauge, when the gauge is seated against the bulb.