



SYLVANIA

engineering data service SC-3304

DESCRIPTION

The Sylvania Type SC-3304 is a cathode ray tube with a fiber optics strip inserted into the faceplate. This tube is designed for high resolution photographic recording. The fiber optics strip has an active area $2\frac{3}{4}$ " long by $\frac{1}{4}$ " wide. The electron-optical system and fine grain screen achieve very fine trace width with conventional focusing and deflection units and a simple beam-centering magnet.

CHARACTERISTICS

GENERAL DATA

Focusing Method	Magnetic
Deflection Method	Magnetic
Deflection Angle (Approx.)	30 Degrees
Phosphor*	Fine Grain P11, Aluminized
Fluorescence	Blue
Persistence	Short
Faceplate	Fiber Optics

*In addition to the phosphor shown, the SC-3304 can be supplied with several other screen phosphors.

ELECTRICAL DATA

Heater Voltage	6.3 Volts
Heater Current	$0.6 \pm 10\%$ Ampere
Direct Interelectrode Capacitances (Approx.)	
Grid No. 1 to All Other Electrodes	9 pf
Cathode to All Other Electrodes	4 pf

MECHANICAL DATA

Minimum Useful Fiber Optics Screen Size	$2\frac{3}{4}$ " x $\frac{1}{4}$ "
Overall Length	$16 \pm \frac{3}{8}$ Inches
Base	B8-181
Basing	See Diagram

RATINGS

MAXIMUM RATINGS (Absolute Maximum Values)

Anode Voltage	25,000 Volts dc
Grid No. 2 Voltage	2500 Volts dc
Grid No. 1 Voltage	
Negative Bias Value	150 Volts dc
Positive Bias Value	0 Volt
Positive Peak Value	0 Volt
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	165 Volts
Heater Positive with Respect to Cathode	165 Volts

TYPICAL OPERATING CONDITIONS

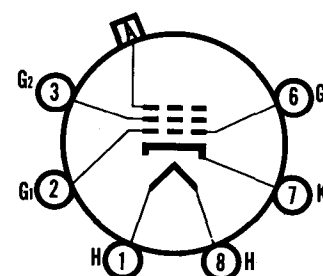
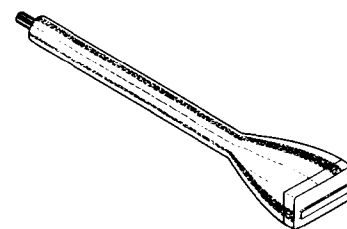
Anode Voltage	20,000 Volts dc
Grid No. 2 Voltage	2000 Volts dc
Grid No. 1 Voltage Required for Cutoff ¹	-33 to -77 Volts dc
Focusing Coil Current (Approx.) ²	100 Ma
Line Width ³	0.001 Inch

CIRCUIT VALUES

Grid No. 1 Circuit Resistance	1.5 Megohms Max.
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QUICK REFERENCE DATA

High Resolution Tube
.001" Line Width
Fiber Optics Strip
(inserted in faceplate)
Extremely Fine Grain Screen
Magnetic Deflection
Magnetic Focus
No Ion Trap
Aluminized Screen



SYLVANIA ELECTRIC
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Electronic Components Group
ELECTRONIC TUBE DIVISION
SENECA FALLS, NEW YORK

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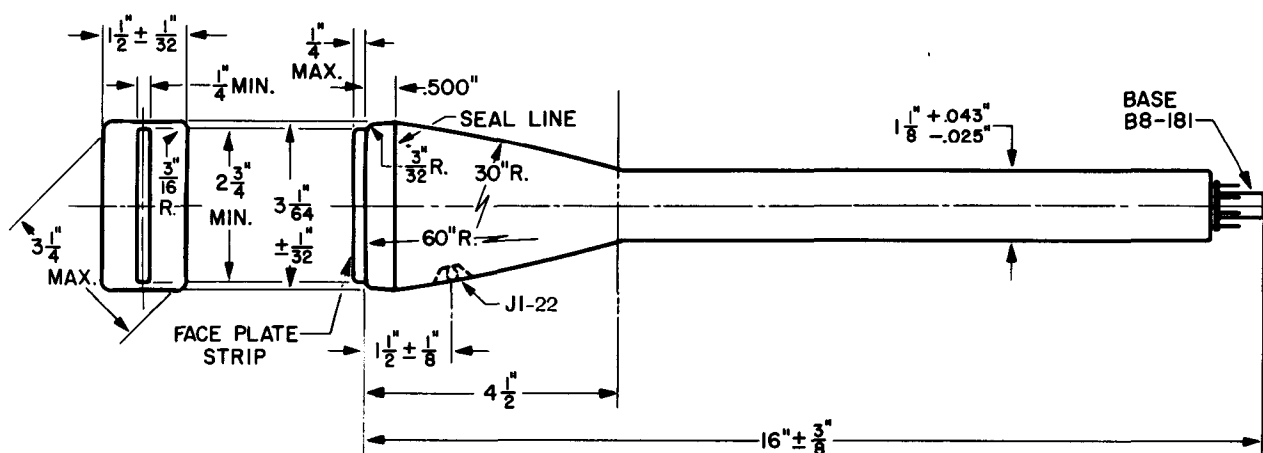
File Under

SPECIAL AND GENERAL
PURPOSE CATHODE RAY TUBES

NOTES:

1. Visual extinction of undeflected focused spot.
2. For JEDEC focusing coil 106 or equivalent $2\frac{1}{2}$ " from reference line.
3. Line width measured at $5\ \mu$ by the shrinking raster method. Variable strength (0-10 gauss) beam centering magnet must be used for optimum line width.

OUTLINE



D61038

Base Alignment:

Centerline between Pin positions 4 and 5 aligns with major axis of tube face within 30° , and is on same side as anode contact (J1-22).