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 2¾" long by ¼" 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 ± 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	2¾" x ¼"
Overall Length	16 ± ⅜ 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

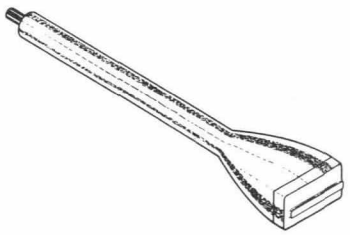
Anode Voltage	20,000 Volts dc
Grid No. 2 Voltage	2000 Volts dc
Grid No. 1 Voltage Required for Cutoff[1]	−33 to −77 Volts dc
Focusing Coil Current (Approx.)[2]	100 Ma
Line Width[3]	0.001 Inch

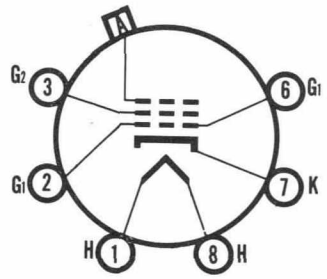
CIRCUIT VALUES

Grid No. 1 Circuit Resistance	1.5 Megohms Max.

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





SC-3304

SYLVANIA ELECTRIC PRODUCTS INC.

Electronic Components Group
ELECTRONIC TUBE DIVISION
SENECA FALLS, NEW YORK

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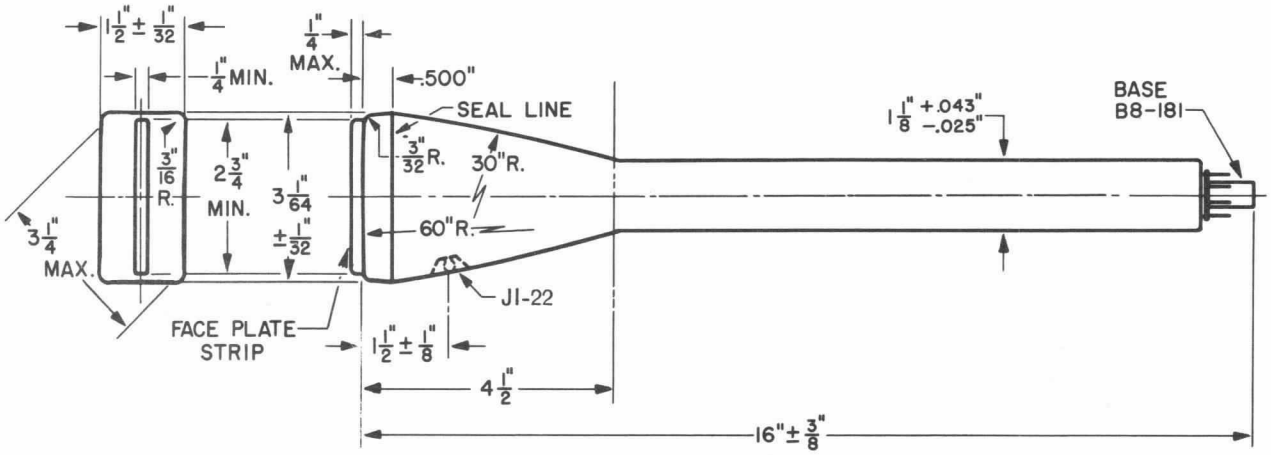
File Under
SPECIAL AND GENERAL PURPOSE CATHODE RAY TUBES

NOTES:

1. *Visual extinction of undeflected focused spot.*
2. *For JEDEC focusing coil 106 or equivalent 2½" from reference line.*
3. *Line width measured at 5 μa by the shrinking raster method. Variable strength (0-10 gauss) beam centering magnet must be used for optimum line width.*

OUTLINE



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).