

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 2³/₄" long by 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 ± 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 ³ / ₄ " x 1/4" |
| Overall Length | 16 ± 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

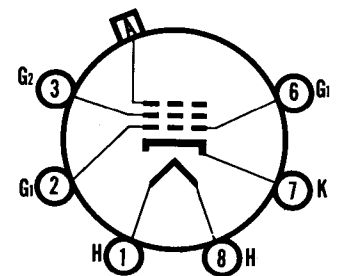
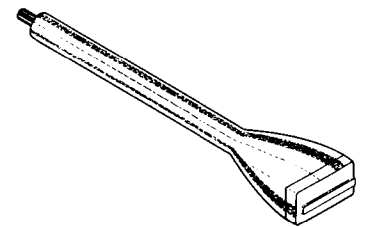
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|---|---------------------|
| Anode Voltage | 20,000 Volts dc |
| Grid No. 2 Voltage | 2000 Volts dc |
| Grid No. 1 Voltage Required for Cutoff ¹ | -33 to -77 Volts dc |
| Focusing Coil Current (Approx.) ² | 100 Ma |
| Line Width ³ | 0.001 Inch |

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

A Technical Publication

JUNE, 1964

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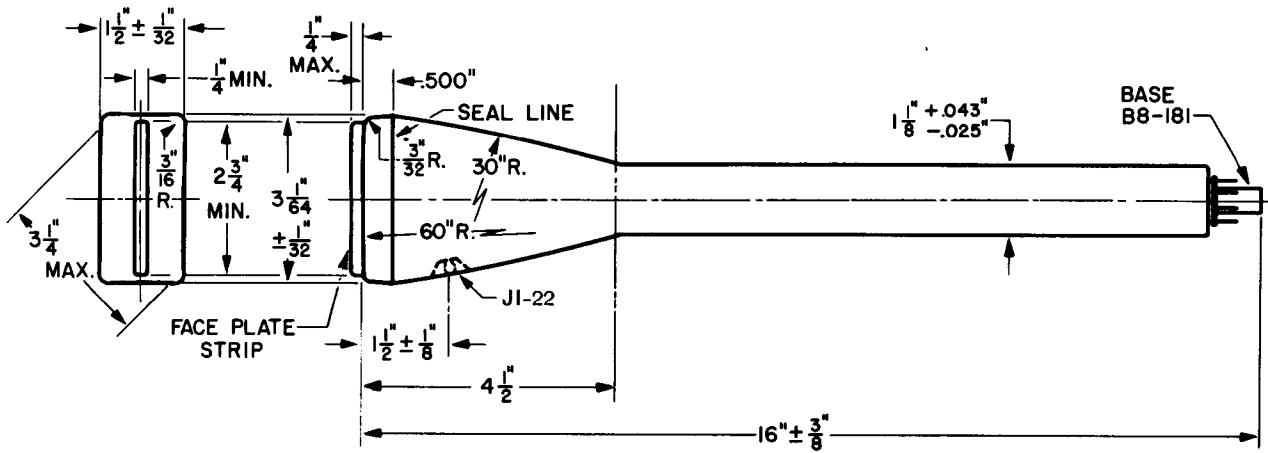
File Under

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 5μ 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).