

GENERAL ELECTRIC

INDUSTRIAL AND MILITARY CATHODE RAY TUBES

5DRP4
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CATHODE RAY TUBE

5 INCH ROUND, GLASS

FACEPLATE - SPHERICAL, GREY

FOCUS - ELECTROSTATIC

PERSISTENCE - SHORT

DEFLECTION - MAGNETIC

70-DEGREE DEFLECTION ANGLE

ALUMINIZED

DESCRIPTION & RATING

The 5DRP4 is an electrostatic-focus and magnetic-deflection cathode ray tube for radar applications. Particular features of this tube are its short over-all length and small neck diameter, which permits its use in less equipment space.

GENERAL

ELECTRICAL

Heater Voltage 6.3 Volts
Heater Current $0.3 \pm 10\%$ Amperes

Focusing Method - Electrostatic

Deflecting Method - Magnetic

Deflection Angle, approximate 70 Degrees

Direct Interelectrode Capacitances, approximate

Cathode to All Other Electrodes 8 μ mf

Grid No. 1 to All Other Electrodes 10 μ mf

Grid No. 2 to All Other Electrodes 10 μ mf

OPTICAL

Phosphor Number	P4
Fluorescent Color	White
Phosphorescent Color	White
Persistence	Short

MECHANICAL

Over-all Length 7 ± 1/4 Inches
Greatest Bulb Diameter 4-15/16 ± 1/16 Inches
Minimum Useful Screen Diameter 4-1/4 Inches

Bulb Contact - Recessed Small-Ball Cap, JETEC No. J1-22

Base - 9 Pin Miniature

Basing, JETEC Designation - Special

Bulb Contact Alignment

Plane of J1-22 Contact passes halfway between Pins #1 and #9 ± 10 Degrees

J1-22 Contact on same side as Pins #1 and #9.

Mounting Position - Any

MAXIMUM RATINGS

DESIGN-CENTER VALUES*

Anode Voltage 10,000 Max Volts DC
Grid-No. 1 Voltage
Negative-Bias Value 200 Max Volts DC
Positive-Bias Value 0 Max Volts DC
Positive-Peak Value 2 Max Volts
Grid-No. 2 Voltage 630 Max Volts DC

Peak Heater-Cathode Voltage

Heater Negative With Respect to Cathode 180 Max Volts

Heater Positive With Respect to Cathode 180 Max Volts

TYPICAL OPERATING CONDITIONS

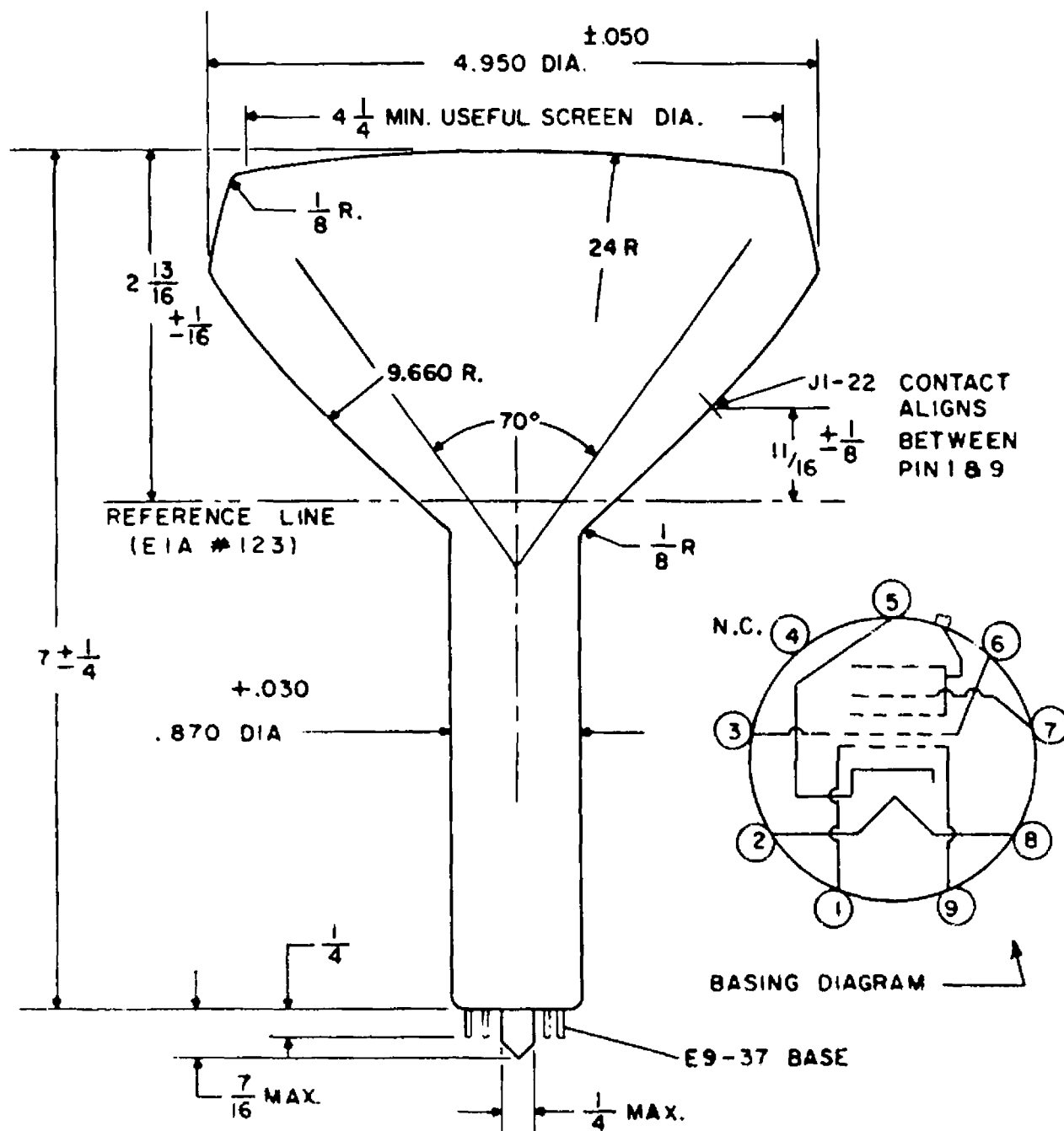
Anode Voltage 10,000 Volts DC
Grid-No. 1 Voltage # -33 to -77 Volts DC
Grid-No. 2 Voltage # 300 Volts DC
Line Width A ++ 0.35 mm Max.
Spot Position ## 10 mm
Focusing Anode Voltage
(100µA) 0 to +400 Volts DC
Modulation (100µA) 35 Volts DC Max.

MAXIMUM CIRCUIT VALUES

Grid-No. 1 Circuit Resistance 1.5 Max Megohms

- * The maximum ratings provide a ten percent safety factor in accordance with the standard design-center system of rating cathode ray tubes. The tube will withstand the combined effects of variations in line voltage and components provided the maximum design-center values are not exceeded by more than ten percent.
- # For visual extinction of undeflected focused spot.
- ++ Measured in accordance with MIL-E-10, paragraph 4.12.6.2 at an anode current of 100 microamperes.
- ## The center of the undeflected, unfocused spot will fall within a circle of 10 millimeters radius concentric with the tube face.

Cathode Ray Tube Department
GENERAL ELECTRIC COMPANY
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PIN	CONNECTIONS
1	GRID #1
2	HEATER
3	GRID #2
4	NOT CONNECTED
5	CATHODE

PIN	CONNECTIONS
6	GRID #2
7	FOCUS
8	HEATER
9	GRID #1