SYLVANIA

engineering data service

SYLVANIA
5BRP4
5BRP-*

CHARACTERISTICS

GENERAL DATA

Focusing Method	Electrostatic
Deflecting Method	Magnetic
Deflection Angle (Approx.)	70 Degrees

Types*	Fluorescence	Phosphorescence	Persistence
5BRP4	White	White	Medium
5BRP7	Blue-White	Yellow	Long
5BRP16	Purple	- - -	Very Short
5BRP19	Orange	Orange	Long
5BRP25	Orange	Orange	Long

Screen	Aluminized
Faceplate	Clear, Spherical

* In addition to the types shown, the 5BRP- can be supplied with several other screen phosphors.

ELECTRICAL DATA

Heater Voltage	6.3 Volts
Heater Current	0.3 ± 10% Ampere
Direct Interelectrode Capacitances (Approx.)	
Cathode to All Other Electrodes	3 μμf
Grid No. 1 to All Other Electrodes	6.5 μμf

MECHANICAL DATA

Minimum Useful Screen Diameter	4¼ Inches
Bulb	J39½R
Bulb Contact (Recessed Small Ball Cap)	J1-22
Base[1]	E9-37
Basing	9HT
Weight	1 Pound

RATINGS

MAXIMUM RATINGS (Absolute Maximum Values)

Anode Voltage	10,000 Volts	dc
Grid No. 4 Voltage (Focusing Electrode)	−550 to +1100 Volts	dc
Grid No. 2 Voltage	770 Volts	dc
Grid No. 1 Voltage		
Negative Bias Value	180 Volts	dc
Positive Bias Value	0 Volts	dc
Positive Peak Value	0 Volts	
Peak Heater-Cathode Voltage		
Heater Negative with Respect to Cathode	180 Volts	
Heater Positive with Respect to Cathode	180 Volts	

TYPICAL OPERATING CONDITIONS[5]

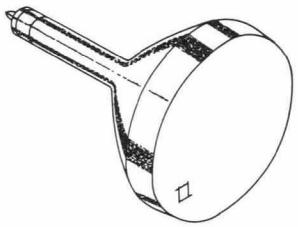
Anode Voltage	8000 Volts	dc
Grid No. 4 Voltage for Focus[2]	−50 to +350 Volts	dc
Grid No. 2 Voltage	300 Volts	dc
Grid No. 1 Voltage Required for Spot Cutoff	−15 to −45 Volts	dc
Line Width "A"[3]	.014 Inch	Max.
Spot Position (Undeflected)[4]	¼ Inch	

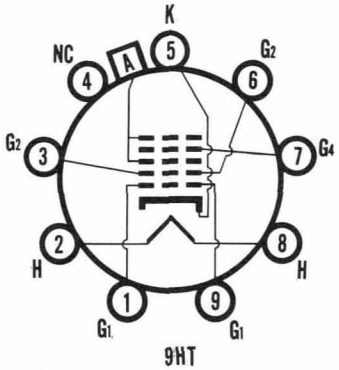
CIRCUIT VALUES:

Grid No. 1 Circuit Resistance	1.5 Megohms Max.

QUICK REFERENCE DATA

Radar Indicator (5BRP7)
Monitor Tube (5BRP4)
5" Direct Viewed
Round Glass Type
Spherical Faceplate
Aluminized Screen
Magnetic Deflection
Electrostatic Focus
⅞ Inch Neck Diameter
6.3 Volt — 300 Ma Heater
Short Length
Light Weight





SYLVANIA
ELECTRONIC TUBES
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SPECIAL AND GENERAL PURPOSE
CATHODE RAY TUBES

NOTES:

1. *A socket with a center opening to clear the tubulation must be used. Care should be exercised to avoid damage to the tubulation.*
2. *With Grid No. 1 Voltage adjusted to give an anode current of 100 μa.*
3. *Measured per Mil-E-1 specifications at an anode current of 100 μa.*
4. *With the tube shielded, the center of the undeflected, focused spot will fall within a circle of ¼ inch radius concentric with the center of the tube face.*
5. *The P16, P19 and P25 screens can be permanently damaged if current density is permitted to rise too high. To prevent burning, minimum beam current densities should be employed.*

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.

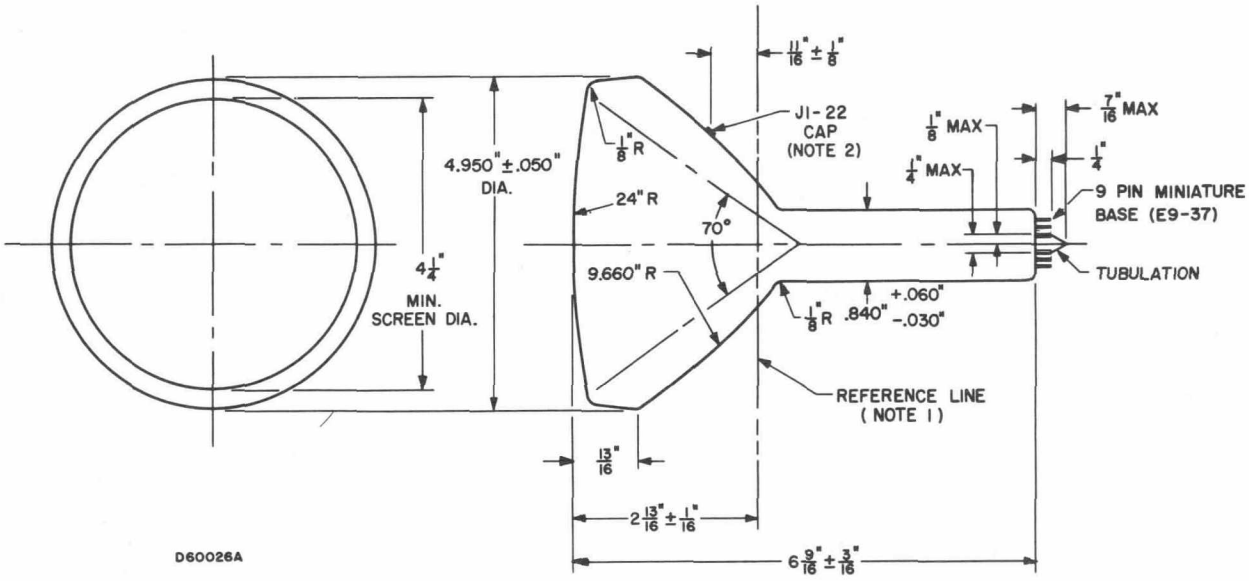

DIAGRAM NOTES:

1. *Reference line is determined by the point where leading edge of JEDEC G-123 reference line gauge will stop.*
2. *Bulb Contact (J1-22 Cap) has radial alignment about tube axis, with mid-plane between base Pins No. 1 and No. 9, ± 10 degrees.*