

DU MONT

TYPE 5BCP- CATHODE-RAY TUBE

The 5BCP- is a 5-inch magnetic focus and magnetic deflection cathode-ray tube suitable for radar use. It features a small diameter neck and short overall length to permit its use in small, compact equipment.

GENERAL CHARACTERISTICS

Electrical Data

Focusing Method	Magnetic	
Deflecting Method	Magnetic	
Deflecting Angle, Approx.	70	Degrees
Direct Interelectrode Capacitances, Approx.		
Cathode to all other electrodes	3.7	μf
Grid #1 to all other electrodes	3.5	μf

Optical Data

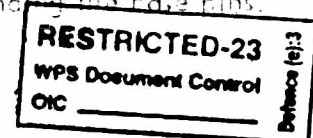
Phosphor Number	1	4	7	11
Fluorescent Color	Green	White	Blue	Blue
Phosphorescent Color	-----	-----	Yellow	----
Persistence	Medium	Medium	Long	Short

Faceplate Clear

Mechanical Data

Overall Length (Seated Height)	$7 \pm 1/4$	Inches
Greatest Diameter of Bulb	$4.950 \pm .050$	Inches
Minimum Useful Screen Diameter	$4 \ 1/4$	Inches
Bulb Contact	J1-22	
Base	E9-37	
Basing *	9HD	
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		

* A socket with a center opening to clear the tubulation should be used. Care should be taken in handling the tube to avoid damaging the exposed tubulation and bending the base pins.





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RATINGS (Design Center Values)

Heater Voltage	6.3	Volts
Heater Current at 6.3 Volts	0.3 ± 10%	Ampere
Accelerator Voltage	10,000	Max. Volts DC
Accelerator Input	6	Max. Watts
Grid #1 Voltage		
Negative Bias Value	200	Max. Volts DC
Positive Bias Value	0	Max. Volts DC
Positive Peak Value	0	Max. Volts
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

Accelerator Voltage	6000	8000	Volts DC
Grid #1 Voltage ¹	-19 to -56	-25 to -75	Volts DC
Line Width A ²	.013	.011	Inch Max.
Focusing Coil Current ³	48 to 72	56 to 84	mA. DC
Spot Position (Undelected) ⁴	1/4	1/4	Inch

MAXIMUM CIRCUIT VALUES

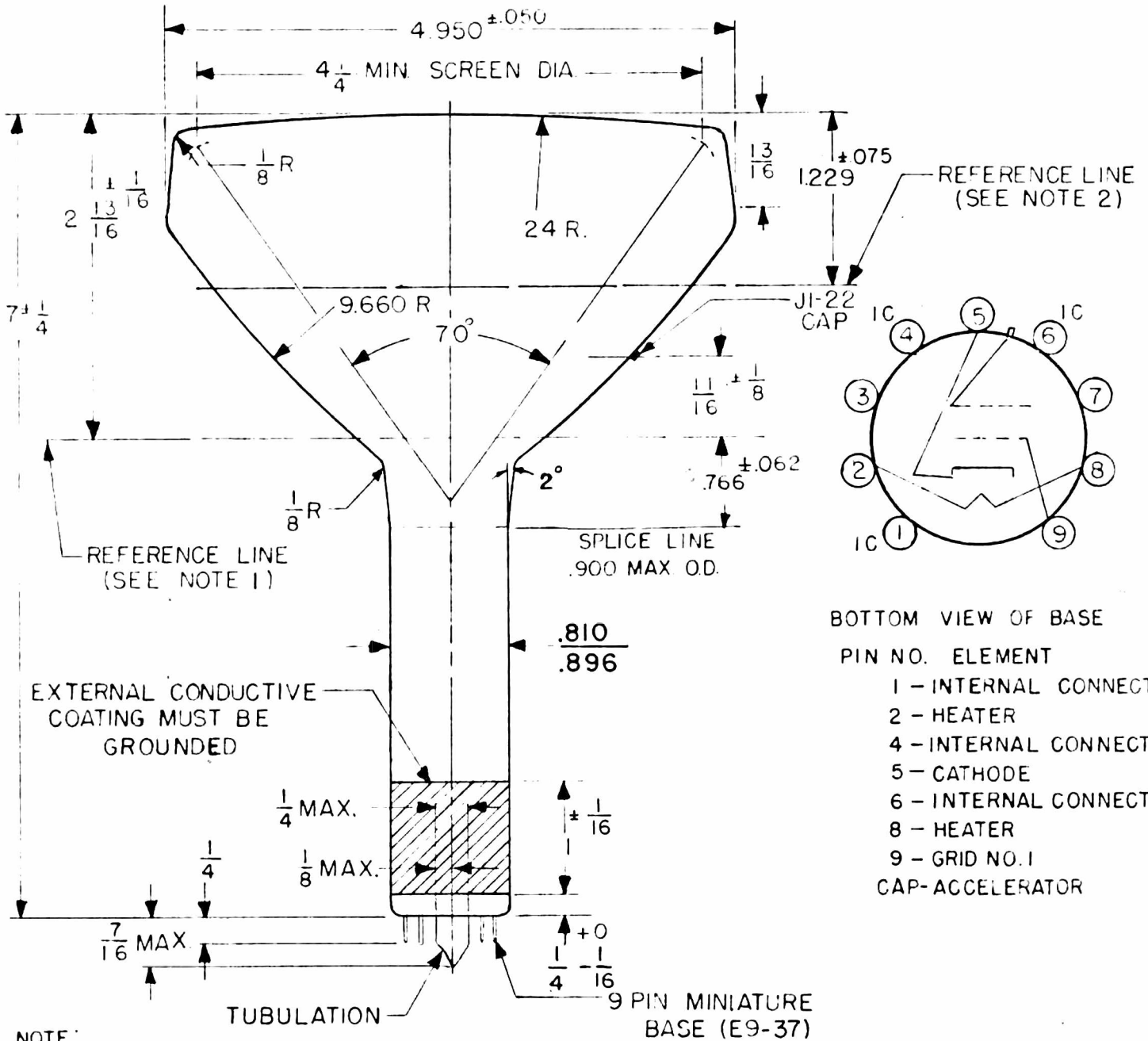
Grid #1 Circuit Resistance	1.5	Max. Megohms
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NOTES

1. Visual extinction of undeflected, focused spot.
2. Measured in accordance with MIL-E-1 specifications, at $I_b = 200 \mu\text{a}$
3. For JETEC Focus Coil #127, or equivalent, with the Grid #1 bias voltage adjusted to produce a beam current of $200 \mu\text{a}$. Distance from reference line to center of gap on focus coil shall be $2 \frac{3}{8}$ Inches.
4. The center of the undeflected, unfocused spot will fall within a circle of $1/4$ -inch radius concentric with the center of the tube face, with the tube shielded.

DUMONT

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BOTTOM VIEW OF BASE

PIN NO. ELEMENT

- 1 - INTERNAL CONNECTION
 - 2 - HEATER
 - 4 - INTERNAL CONNECTION
 - 5 - CATHODE
 - 6 - INTERNAL CONNECTION
 - 8 - HEATER
 - 9 - GRID NO. 1
- CAP-ACCELERATOR