



CATHODE-RAY TUBE

TYPE 5EAP-

The Du Mont Type 5EAP- is a 5-inch diameter, single beam, low voltage electrostatic focus, magnetic deflection cathode-ray tube. The bulb is an all-glass blank only 8 1/8 inches long, having a 7/8-inch diameter neck offset for sector scanning.

The Type 5EAP- is particularly suitable for miniaturization techniques employed in airborne marine and portable radar receivers.

The screen is aluminized to provide high brightness and for stabilization of screen potential.

GENERAL CHARACTERISTICS

Electrical Data

Focusing Method	Electrostatic	
Deflecting Method	Magnetic	
Direct Interelectrode Capacitances, Approximate		
Cathode to all other electrodes	3.2	μf
Grid No. 1 to all other electrodes	6.4	μf

Optical Data

Phosphor Number	7
Fluorescence	White
Phosphorescence	Yellow-Green
Persistence	Long
Faceplate	Clear

Mechanical Data

Overall Length (Seated Height)	9 1/8 ⁺⁰ / _{-1/8}	Inches
Greatest Diameter of Bulb	4.950 ± .062	Inches
Minimum Useful Screen Diameter	4 1/2	Inches
Bulb Contact	J1-22	
Base *	E9-37	

* 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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GENERAL CHARACTERISTICS (Mechanical Data) (Continued)

Bulb Contact Alignment:

Plane of J1-22 cap passes halfway between Pins

No. 1 and No. 9

± 10

Degrees

J1-22 cap on same side as Pins No. 1 and No. 9

RATINGS (Design Center Values)¹

Heater Voltage	6.3	Volts
Heater Current at 6.3 Volts	0.3 ± 5%	Ampere
Accelerator Voltage	11,000	Max. Volts DC
Accelerator Input	6	Max. Watts
Focusing Electrode Voltage	-500 to +1000	Max. Volts DC
Grid No. 2 Voltage	500	Max. Volts DC
Cathode Voltage		
Negative Bias Value	0	Max. Volts DC
Negative Peak Value	0	Max. Volts
Positive Bias Value	150	Max. Volts DC
Positive Peak Value	180	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 CONDITIONS¹

Accelerator Voltage	8000	Volts DC
Focusing Electrode Voltage ²	-40 to +250	Volts DC
Grid No. 2 Voltage	250	Volts DC
Cathode Voltage ³	10 to 25	Volts DC
Modulation ⁴	-20	Volts Max.
Line Width "A" ⁴	0.014	Inch Max.
Focusing Electrode Current for any operating condition	-15 to +15	Microamperes

DU MONT
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MAXIMUM CIRCUIT VALUES

Grid No. 1 Circuit Resistance	1.5	Max. Megohms
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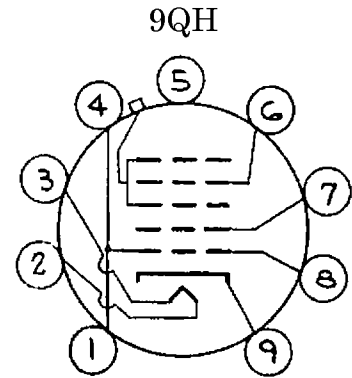
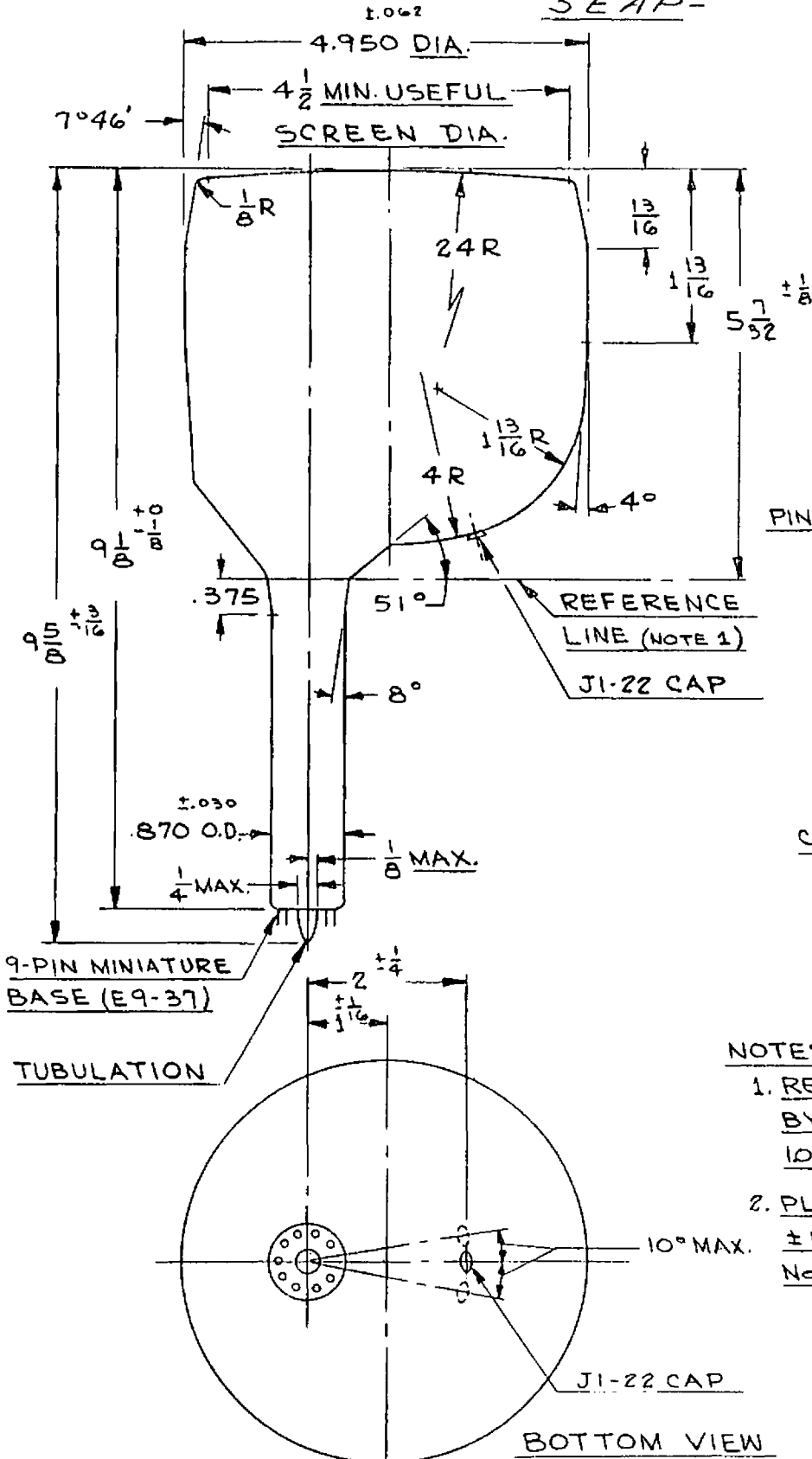
NOTES

1. Voltage values measured with respect to Grid No. 1.
2. With the cathode voltage adjusted to give an accelerator current of 100 microamperes on a 2 x 2-inch raster pattern.
3. Visual extinction of the undeflected, focused spot.
4. Measured in accordance with MIL-E-1 specifications with an accelerator current of 100 microamperes.

DUMONT

CATHODE-RAY TUBE

SEAP-



BOTTOM VIEW

PIN No	ELEMENT
1	<u>GRID No. 1</u>
2	<u>HEATER</u>
3	<u>HEATER</u>
4	<u>GRID No. 1</u>
6	<u>FOCUSING ELECTRODE</u>
7	<u>GRID No. 2</u>
8	<u>GRID No. 1</u>
9	<u>CATHODE</u>
CAP-	<u>ACCELERATOR</u>

NOTES;

1. REFERENCE LINE DETERMINED BY POINT WHERE RING GAUGE 1000 ± .003 I.D. 1.500 LONG WILL STOP.
2. PLANE OF JI-22 CAP ALIGNS ± 10° MIDWAY BETWEEN PINS No. 1 & No. 9 & ON THE SAME SIDE.