

DUMONTCATHODE-RAY TUBETYPE K1898P-TENTATIVE**RESTRICTED-23**

WPS Document Control

CIC _____

The Du Mont Type K1898P- is a 5-inch electrostatic focus, magnetic deflection cathode-ray tube suitable for radar applications. The tube is designed for miniaturized equipments, featuring short overall length, a small diameter neck, and a miniature base. This tube utilizes a low current heater and has low grid-drive characteristics. These features in conjunction with the small diameter neck afford considerable reduction in power requirements. An aluminized screen is utilized for greater light output and to minimize screen charging effects.

GENERAL CHARACTERISTICSElectrical Data

Focusing Method	Electrostatic	
Deflecting Method	Magnetic	
Deflecting Angle (Approximate)	70	Degrees
Direct Interelectrode Capacitances, Approximate		
Cathode to all other electrodes		
Grid No. 1 to all other electrodes		

Optical Data

Phosphor Number	4	7	16	19	25
Fluorescence	White	Blue	Violet	Orange	Orange
Phosphorescence	-----	Yellow	-----	Orange	Orange
Persistence	Short-to-medium	Long	Extremely short	Long	Long

Faceplate Clear, spherical

Mechanical Data

Overall Length (seated height)	6 9/16 ± 3/16	Inches
Greatest Diameter of Bulb	4.950 ± .050	Inches
Minimum Useful Screen Diameter	4 1/4	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.

DUMONT

CATHODE-RAY TUBE

TYPE K1898P-

TENTATIVE

GENERAL CHARACTERISTICS (Mechanical Data)(Continued)

Basing	9 HT	
Bulb Contact Alignment:		
Plane of J1-22 cap passes halfway between Pins No. 1 and 9	± 10	Degrees
J1-22 cap on same side as Pins No. 1 and 9		
Weight, Approximate	1	Pound

MAXIMUM RATINGS (DESIGN MAXIMUM VALUES)

Heater Voltage	6.3	Volts
Heater Current at 6.3 Volts	0.3 ± 10%	Ampere
Accelerator Voltage	10,000	Max. Volts DC
Focusing Electrode Voltage	-550 to +1100	Max. Volts DC
Grid No. 2 Voltage	770	Max. Volts DC
Grid No. 1 Voltage:		
Negative Bias Value	180	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 ¹	8,000	Volts DC
Focusing Electrode Voltage ²	0 to +350	Volts DC
Grid No. 2 Voltage	300	Volts DC
Grid No. 1 Voltage ³	-12 to -20	Volts DC
Line Width "A" ⁴	.014	Inch Max.
Spot Position (Undelected) ⁵	5/16	Inch

MAXIMUM CIRCUIT VALUES

Grid No. 1 Circuit Resistance	1.5	Max. Megohms
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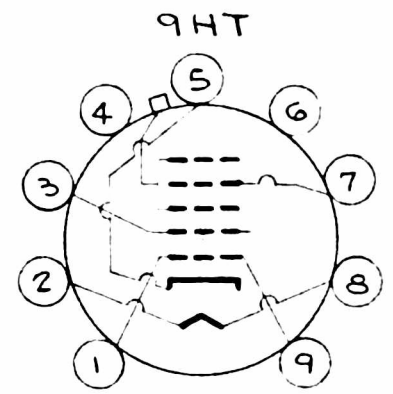
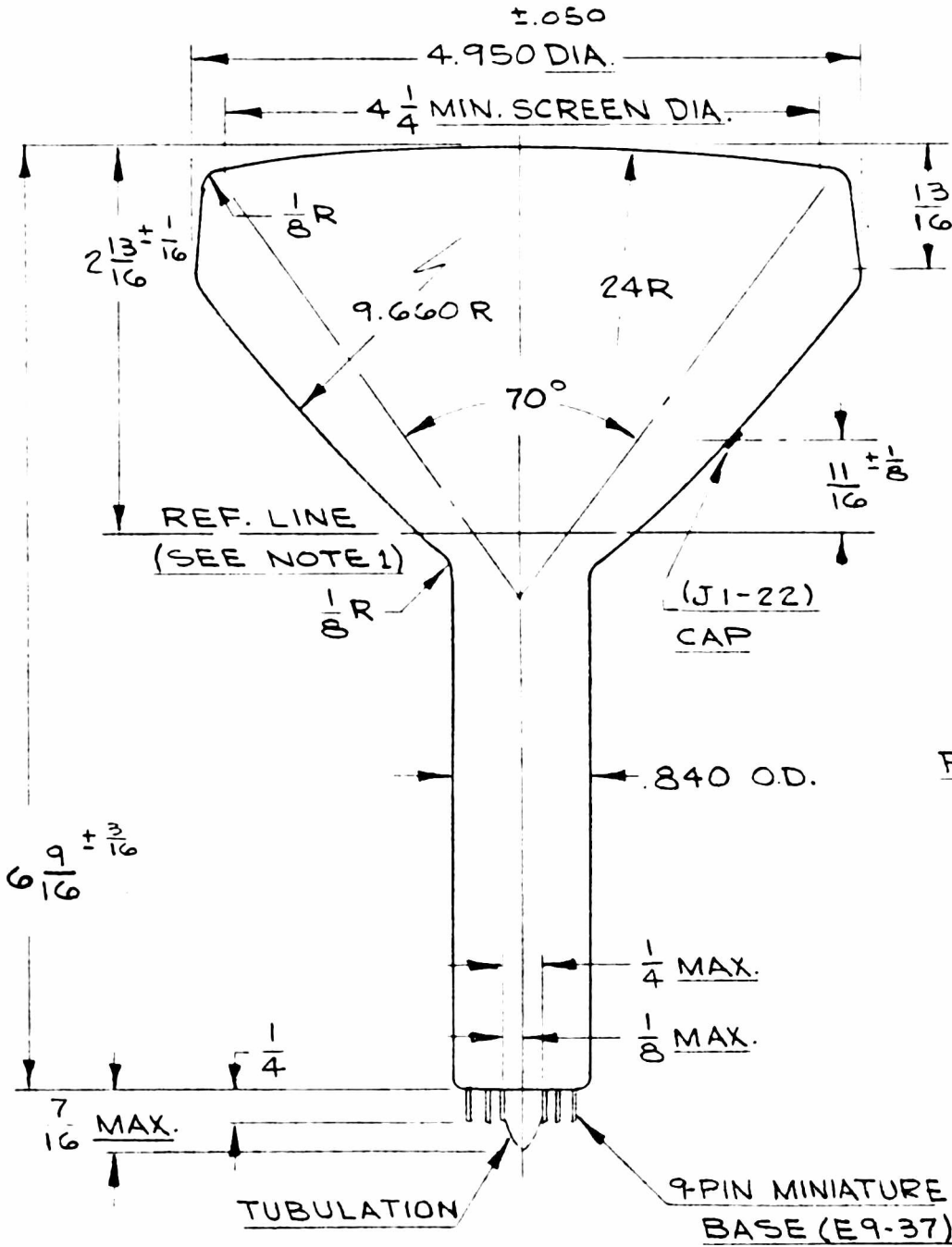
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TENTATIVE

DUMONT

CATHODE-RAY TUBE

K-1898 P-



BOTTOM VIEW

PIN No.	ELEMENT
1	GRID No.1
2	HEATER
3	GRID No.2
5	CATHODE
6	GRID No.2
7	FOCUSING ELECT.
8	HEATER
9	GRID No.1
CAP	ACCELERATOR

NOTE;

1. REFERENCE LINE IS DETERMINED BY THE POINT WHERE LEADING EDGE OF JEDEC G-123 REFERENCE LINE GAUGE WILL STOP.