



Thomas

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Nov. 18, 1964

INDUSTRIAL & MILITARY TUBES
ENGINEERING DATA Sheet 1 of 2

TYPE 10AJP

BRIEF DESCRIPTION

The 10AJP- is a 10-inch rectangular all glass, magnetic deflection cathode ray tube, featuring an automatic electrostatic focus straight gun. (No separate focus supply required).

An aluminized screen is utilized for greater light output and to minimize screen charging effects.

GENERAL CHARACTERISTICS

ELECTRICAL DATA

	Heater current at 6.3 volts	0.6 $\pm$ 10% amp.
Focusing Method		Electrostatic
Deflection Method		Magnetic
Deflection Angle (Diagonal)		90 Degrees
Direct Interelectrode Capacitances (approx.)		
Cathode to All Other Electrodes		5 uuf
Grid No. 1 to All Other Electrodes		6 uuf

OPTICAL DATA

Phosphor Number (Note 1)	4	7	31
Fluorescence	White	White	Yel-Green
Phosphorescence	White	Yellow	Yel-Green
Persistence	Medium	Long	Med-Short
Faceplate (Aluminized)			Gray Filter Glass
Light Transmission (approx.)			80 Percent

MECHANICAL DATA

Overall Length	10-7/8 $\pm$ 5/16 Inches
Greatest Bulb Dimensions:	
Diagonal	10-3/8 $\pm$ 1/8 Inches
Width	9-3/4 $\pm$ 1/8 Inches
Height	7-1/2 $\pm$ 1/8 Inches
Minimum Useful Screen Dimensions	9-1/16 X 6-5/8 Inches
Bulb Number	J83-A1
Bulb Contact (Recessed Small Cavity)	J1-21
Base (Small Shell Duodecal 5-Pin)	B5-57
Bulb Contact Alignment	
J1-21 Contact Aligns with Vacant Pin No. 6	$\pm$ 30 Degrees
J1-21 Contact on Same Side as Pin No. 6	
Basing	12-S
Weight (approx.)	4 Pounds
Neck Length	5-1/2 $\pm$ 3/16 Inches

THOMAS ELECTRONICS, INC., PASSAIC, NEW JERSEY



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TYPE 10AJP

RATINGS (Design Maximum Values)

Anode Voltage	20,000 Volts DC
Grid No. 2 Voltage	550 Volts DC
Grid No. 1 Voltage	
Negative Bias Value	155 Volts DC
Positive Bias Value	0 Volts DC
Positive Peak Value	2 Volts
Peak Heater-Cathode Voltage	
Heater Negative to Cathode	
During the 15 Second Warm-up	450 Volts
After Warm-up	200 Volts
Heater Positive to Cathode	200 Volts

TYPICAL OPERATING CONDITIONS

Anode Voltage	16,000 Volts DC
Grid No. 2 Voltage	300 Volts DC
Grid No. 1 Voltage (Note 2)	-35 to -72 Volts DC
Focusing Electrode (Note 3)	Internally Connected to Grid No.2
Spot Position (Note 4)	Within a 1/4" Radius Circle
Line Width (Note 5)	Typical .010 Inch

MAXIMUM CIRCUIT VALUES

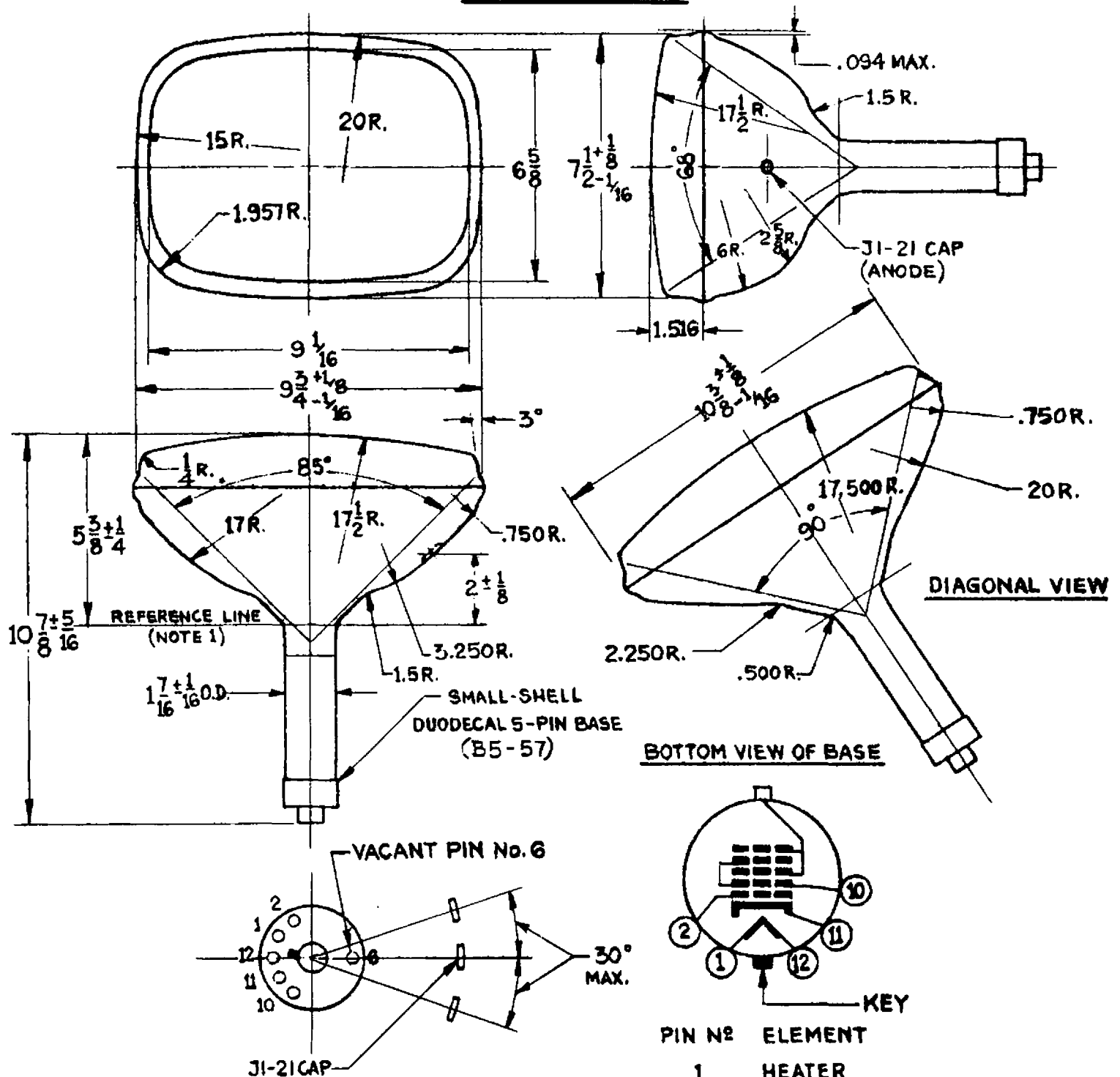
Grid No. 1 Circuit Resistance	1.5 Megohms Max.
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NOTES

1. Other phosphor screen types are available upon request.
2. Visual extinction of focused raster.
3. Under typical operating conditions, good focus is obtained over the entire screen at normal drive levels. Some loss in focus quality may result if operating conditions depart substantially from those specified above.
4. With the tube shielded against external influences, the undeflected and focused spot will fall within a 1/4" radius circle concentric with the tube face center.
5. As measured with an anode current of 100 uAdc. In terms of resolution, this tube is capable of resolving a minimum of 600 lines.

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ENGINEERING DATA

10AJF-



NOTE:

1. DETERMINED BY THE POINT WHERE JEDEC G-126
REFERENCE GAUGE WILL STOP.

PIN №	ELEMENT
1	HEATER
2	GRID № 1
10	GRID № 2
11	CATHODE
12	HEATER

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