



PICTURE TUBES
(MONOCHROME WITH MAGNETIC DEFLECTION)
PICTURE TUBES

JEDEC REGISTRATION DATA

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TUBE TYPE 11DP4

DESCRIPTION

The 11DP4 is an 11 inch electrostatic focus and magnetic deflection rectangular glass picture tube. Outstanding features include a short over-all length, a small neck diameter and a non-ion trap gun designed for operation at low grid 2 voltage for use in cathode drive circuits. The screen is aluminized to increase light output and reduce undesirable screen charging. An external conductive coating is provided to serve as a filter capacitor when grounded.

ELECTRICAL DATA

Focusing Method	Electrostatic
Deflection Method	Magnetic
Deflection Angles (Approximate)	
Diagonal	110 degrees
Horizontal	99 degrees
Vertical	82 degrees
Direct Interelectrode Capacitances	
Cathode to All Other Electrodes (Approximate)	5 uuf
Grid No. 1 to All Other Electrodes (Approximate)	6 uuf
External conductive coating to anode	750 max. uuf
Heater Current at 6.3 volts	500 min. uuf 450 ± 23 ma
Heater Warm-up Time	11 seconds
Electron Gun	
Ion Trap	None
Focus Lens	Unipotential

from JEDEC release #4522, Dec. 9, 1963

OPTICAL DATA

Phosphor Number	P4	Aluminized
Light Transmittance at Center (Approximate)	80	per cent
Antireflection Treatment	None	

MECHANICAL DATA

Overall Length	8.15/16 ± 1/4	inches
Neck Length	4.1/4 ± 1/8	inches
Greatest Dimensions of Tube (At mold seam)		
Diagonal	10.7/8 ± 1/8	inches
Width	9.3/4 ± 1/8	inches
Height	8 ± 1/8	inches
Minimum Useful Screen Dimensions (Projected)		
Diagonal	10.3/16	inches
Horizontal Axis	9.	inches
Vertical Axis	7.1/8	inches
Area	60	sq. inches
Implosion Protection	None	
Bulb	J-87	
Shield	None	
Bulb Contact	J1-21	
Base	B7-208	
Basing	8HR	
Bulb Contact Alignment		
Anode contact aligns with Pin Position No. 4	± 30	degrees

RATINGS (Design Maximum System)

Unless otherwise specified, voltage values are positive and measured with respect to Grid No. 1.

Maximum Anode Voltage	15,000	volts
Minimum Anode Voltage	9,000	volts
Maximum Grid No. 4 (Focusing Electrode) Voltage	-500 to +1000	volts
Maximum Grid No. 2 Voltage	60	volts
Minimum Grid No. 2 Voltage	25	volts
Cathode Voltage		
Maximum negative value	0	volts dc
Maximum negative peak value	2	volts
Maximum positive value	100	volts dc
Maximum positive peak value	150	volts
Maximum Heater Voltage	6.9	volts
Minimum Heater Voltage	5.7	volts
Maximum Heater - Cathode Voltage		
Heater negative with respect to cathode		
During warm-up period not to exceed 15 seconds.	450	volts
After equipment warm-up period	200	volts
Heater positive with respect to cathode	200	volts

TYPICAL OPERATING CONDITIONSCATHODE DRIVE SERVICE

Unless otherwise specified, all voltage values are positive with respect to Grid No. 1.

Anode Voltage	11,000	volts dc
Grid No. 4 Voltage (Focusing Electrode) (Notes 2 and 3)	0	volts dc
Grid No. 2 Voltage	50	volts dc
Cathode Voltage (Note 1)	31 to 49	volts dc

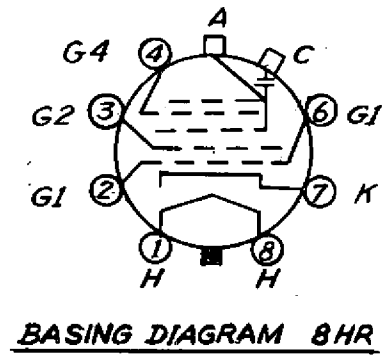
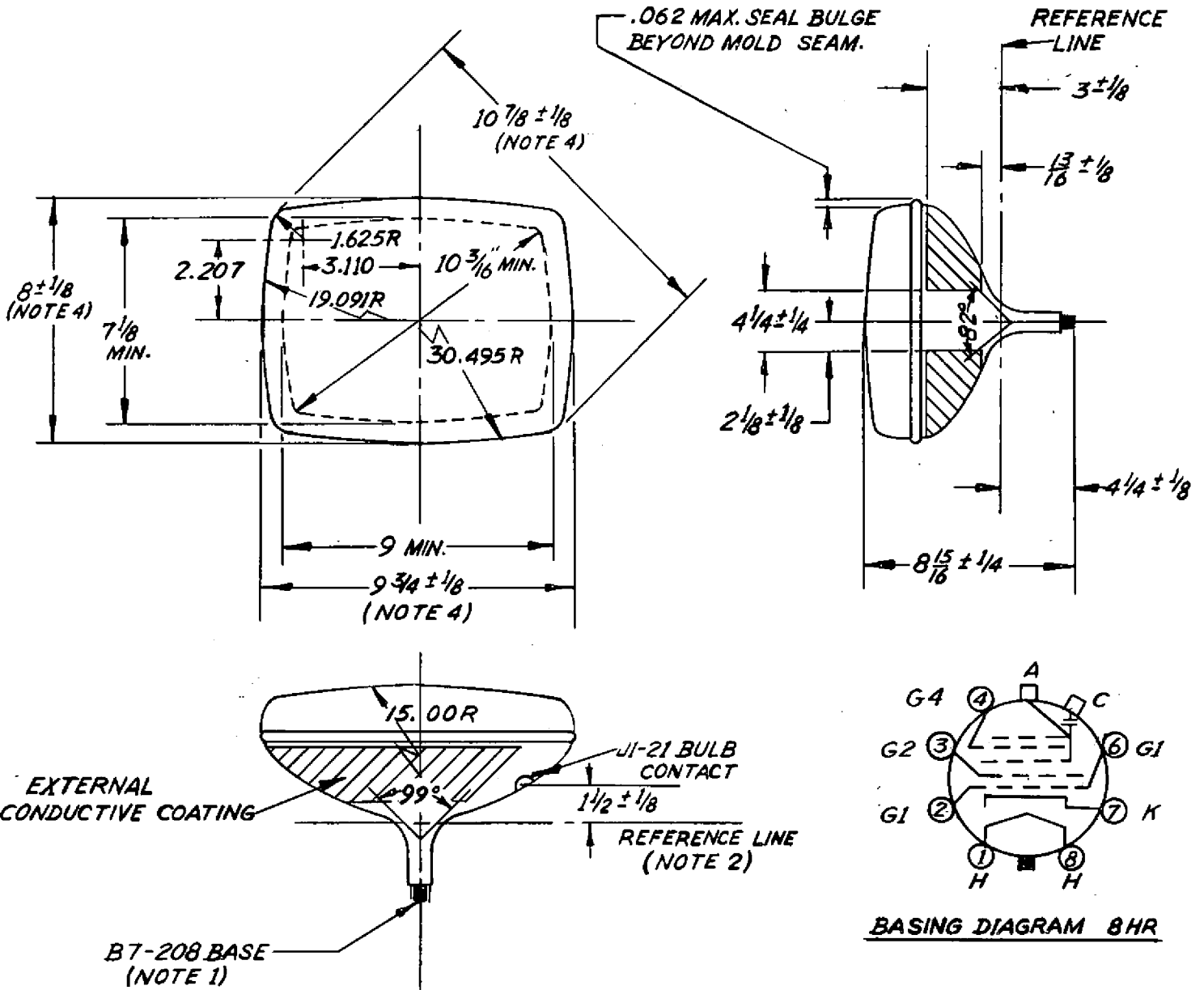
MAXIMUM CIRCUIT VALUES

Maximum Grid No. 1 Circuit Resistance	1.5	megohms
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NOTES

1. Visual extinction of focused raster.
2. With the combined Grid No. 1 bias voltage and video-signal voltage adjusted to give an anode current of 100 microamperes on a 9" by 7 1/8" pattern from RCA 2F21 monoscope or equivalent.
3. Individual tubes will have satisfactory focus at same value between -100 and +300 volts.

OUTLINE DRAWING



NOTES:

1. The plane through the tube axis and pin No. 4 may vary from the plane through the tube axis and bulb contact by an angular tolerance (measured about the tube axis) of $\pm 30^\circ$. Bulb Contact is on the same side as pin No. 4.
2. Reference line as determined by reference line gauge No. C126.
3. Deflection angle on the diagonal is 110 degrees.
4. Measured at mold seam.
5. All dimensions in inches.
6. Not to scale.

PIN CONNECTIONS:

- Pin 1: Heater
- Pin 2: Grid No. 1
- Pin 3: Grid No. 2
- Pin 4: Grid No. 4
- Pin 6: Grid No. 1
- Pin 7: Cathode
- Pin 8: Heater
- Bulb Contact: Anode