

14ASP4
PHOTOTRON PICTURE TUBE

GENERAL DATA

THE 14ASP4 IS A DIRECT-VIEW PICTURE TUBE FOR USE IN TELEVISION RECEIVERS AND INCLUDES SUCH FEATURES AS:

- A short straight electron gun which does not require an ion trap.

- A short neck length.

- A diagonal deflect-
ion angle of 110°

• A gray tinted face
affording approximately
79% light transmission.

- Rectangular Glass Type

- Spherical Face

• Electrostatic Focus:

- Metal Backed Screen

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Heater Voltage.....6.3 Volts
Heater Current.....6 Ampere  $\pm$  10 %
Direct Interelectrode Capacitances (approx.)
    Cathode to All Other Electrodes .....5 uuf
    Grid No. 1 to All Other Electrodes .....6 uuf
Ion Trap Magnet .....None

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Minimum Useful Screen Dimensions	12 5/16 x 9 7/8	Inches
Minimum Useful Screen Area (approx.)	108	Sq. In
Bulb Contact (Recessed Small Cavity Cap).....	JL-21	
Base (Small Shell Eightar 7 Pin).....	JETEC B7-183	
Basing	8	HR
JL-21 Contact Aligns with Pin Position No. 4	4	30 Degree

MAXIMUM RATINGS (Design Center Values)

Anode Voltage (Note 1)		11,000 Volts dc
Grid No. 1 Voltage		-500 to ~~4~~ 1000 Volts dc
Grid No. 2 Voltage		500 Volts dc
Grid No. 1 Voltage		
Negative Bias Value		140 Volts dc
Positive Bias Value		0 Volts dc
Positive Peak Value		2 Volts
Peak Heater-Cathode Voltage (Note 2)		
Heater Negative with Respect to Cathode		
During Warm-up Period	Not to exceed 15 sec.	410 Volts dc
After Equipment Warm-up Period		180 Volts dc
Heater Positive with Respect to Cathode		180 Volts dc

Anode Voltage	12,000 Volts dc
Grid No. 4 Voltage (Note 3).....	-50 to ~~4~~ 350 Volts dc
Grid No. 2 Voltage.....	300 Volts dc
Grid No. 1 Voltage (Note 4).....	-28 to -72 Volts dc

Grid No. 1 Circuit Resistance	1.5 Max. Megohm
External Conductive Coating to Anode	
Capacitance -	850 uuf. Max.

NOTES:

1. Grid No. 5, Grid No. 3, and the collector are connected together within the tube, are referred to herein as anode.

2. Cathode should be returned to one side or to the mid-tap of the heater transformer winding.

3. For focus with anode current of 100 ua and 12 5/16 x 9 7/8 raster.

4. Visual extinction of focused raster.
Extinction of stationary focused spot will require that these values be about 5 volts more negative.

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SOCKET CONNECTIONS BOTTOM VIEW

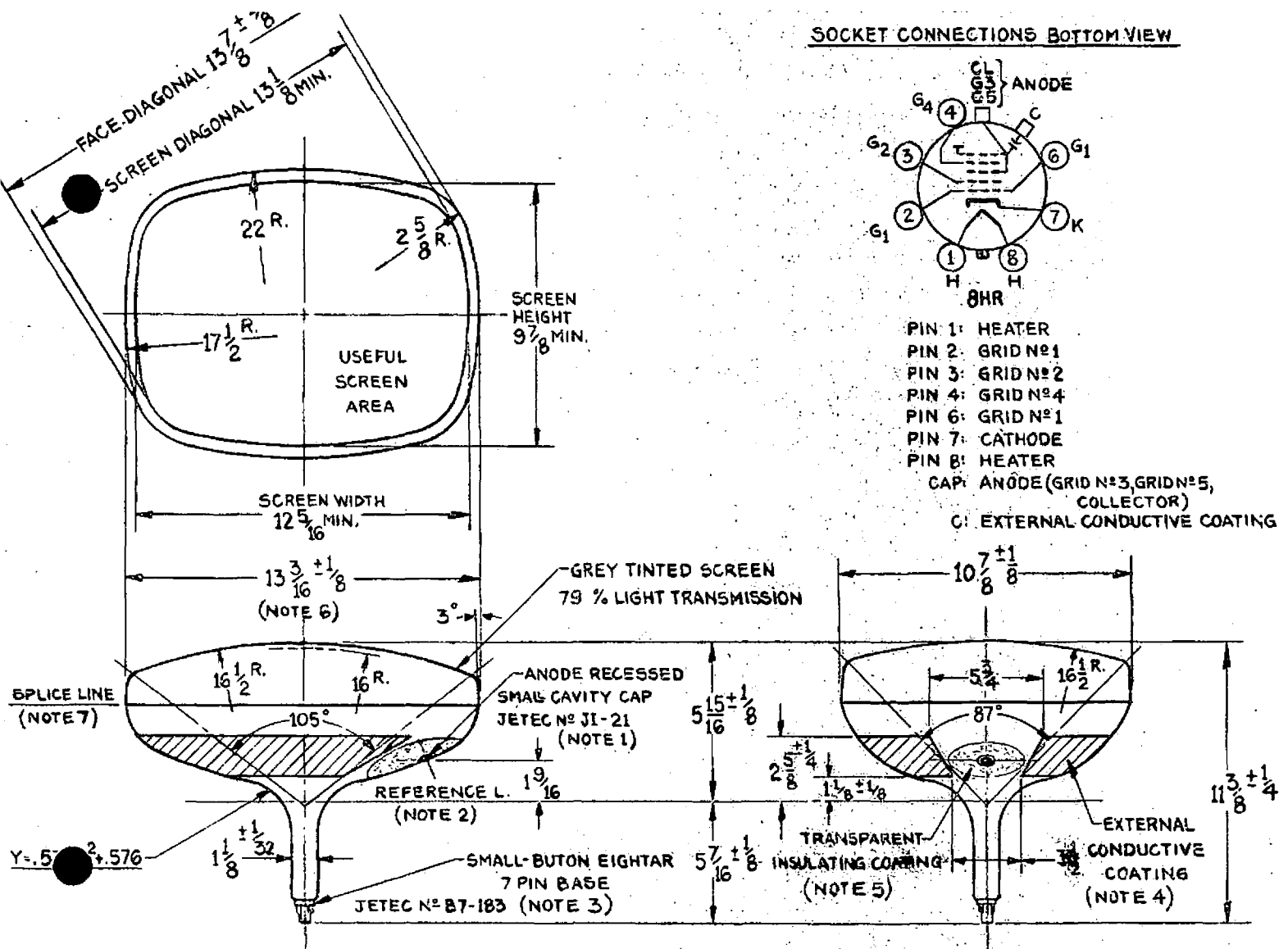


DIAGRAM NOTES:

NOTE 1: The plane through the tube axis and pin No. 4 may vary from the plane through the tube axis and anode terminal by angular tolerance (measured about the tube axis) of $\pm 30^\circ$. Anode terminal is on same side as pin No. 4.

NOTE 2: With tube neck inserted through flared end of reference-line gauge JETEC No. 126 and with tube seated in gauge, the reference line is determined by the intersection of the plane CC' of the gauge with the glass funnel.

NOTE 3: Socket for this base should not be rigidly mounted; it should have flexible leads and be allowed to move freely. The design of the socket should be such that the circuitry cannot impress lateral strains through the socket contacts on the base pins. Bottom circumference of base wafer will fall within a circle concentric with bulb axis and having a diameter of $1\frac{3}{4}$ ".

NOTE 4: External conductive coating must be grounded.

NOTE 5: To clean this area, wipe only with soft dry lintless cloth.

NOTE 6: Measured $2\frac{9}{32}$ " $\pm$ $\frac{1}{32}$ " from the plane tangent to the surface of the face-plate at the tube axis.

NOTE 7: Bulge at splice-line seal may increase the indicated maximum value for envelope width, diagonal and height by not more than $\frac{1}{4}$ ", but at any point around the seal, the bulge will not protrude more than $\frac{1}{8}$ " beyond the envelope surface at the location specified for dimensioning the envelope width, diagonal, and height.