



engineering data service

SYLVANIA
21DJP4

from JETEC release
#2173, May 5, 1958

ADVANCE DATA CHARACTERISTICS

GENERAL DATA

Focusing Method	Electrostatic
Deflection Method	Magnetic
Deflection Angles (Approx.)	
Horizontal	85 Degrees
Diagonal	90 Degrees
Phosphor	Aluminized P4
Fluorescence	White
Persistence	Short to Medium
Faceplate	Gray Filter Glass
Light Transmittance (Approx.)	74 Percent

ELECTRICAL DATA

Heater Voltage	6.3 Volts
Heater Current	0.3 ± 5% Ampere
Heater Warm-up Time ¹	11 Seconds
Direct Interelectrode Capacitances (Approx.)	
Cathode to All Other Electrodes	5 µf
Grid No. 1 to All Other Electrodes	6 µf
External Conductive Coating to Anode ²	2500 µf
	2000 µf

Max.
Min.

MECHANICAL DATA

Minimum Useful	
Screen Dimensions	19 1/16 x 15 1/16 Inches
Minimum Useful Screen Area	262 Sq. Inches
Bulb	J171D or J171E
Bulb Contact (Recessed Small Cavity Cap)	J1-21
Base (Small Shell Duodecal 6-Pin)	B6-63 or B6-203
Basing	12L
Weight (Approx.)	22 1/2 Pounds

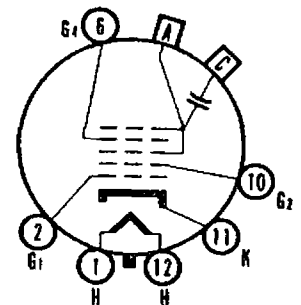
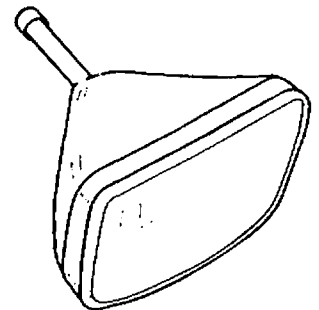
RATINGS

MAXIMUM RATINGS (Absolute Maximum Values)

Anode Voltage	22,000 Volts	dc
Grid No. 4 Voltage		
(Focusing Electrode)	-550 to +1100 Volts	dc
Grid No. 2 Voltage	550 Volts	dc
Grid No. 1 Voltage		
Negative Bias Value	155 Volts	dc
Negative Peak Value	220 Volts	
Positive Bias Value	0 Volts	dc
Positive Peak Value	2 Volts	
Peak 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	

QUICK REFERENCE DATA

Television Picture Tube
21" Direct Viewed
Rectangular Glass Type
Spherical Faceplate
Gray Filter Glass
Electrostatic Focus
No Ion Trap
90° Magnetic Deflection
External Conductive Coating
Aluminized Screen
6.3 Volt, 300 Ma Heater



12-1

SYLVANIA ELECTRIC
PRODUCTS INC.
TELEVISION PICTURE TUBE
DIVISION
SENECA FALLS, NEW YORK

Prepared and Released By The
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Page 1 of 3

SYLVANIA

21DJP4

Page 2

TYPICAL OPERATING CONDITIONS

Anode Voltage	16,000	Volts	dc
Grid No. 4 Voltage	-50 to +350	Volts	dc
Grid No. 2 Voltage	300	Volts	dc
Grid No. 1 Voltage Required for Cutoff ³	-35 to -72	Volts	dc

CIRCUIT VALUES

Grid No. 1 Circuit Resistance	1.5	Megohms	Max.
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NOTES:

1. Heater warm-up time is defined as the time required for the voltage across the heater to reach 80% of its rated value after applying four (4) times rated heater voltage to a circuit consisting of the tube heater in series with a resistance equal to three (3) times rated heater voltage divided by rated heater current.
2. External conductive coating must be grounded.
3. Visual extinction of focused raster. Extinction of stationary focused spot will require that these values be about 5 volts more negative.

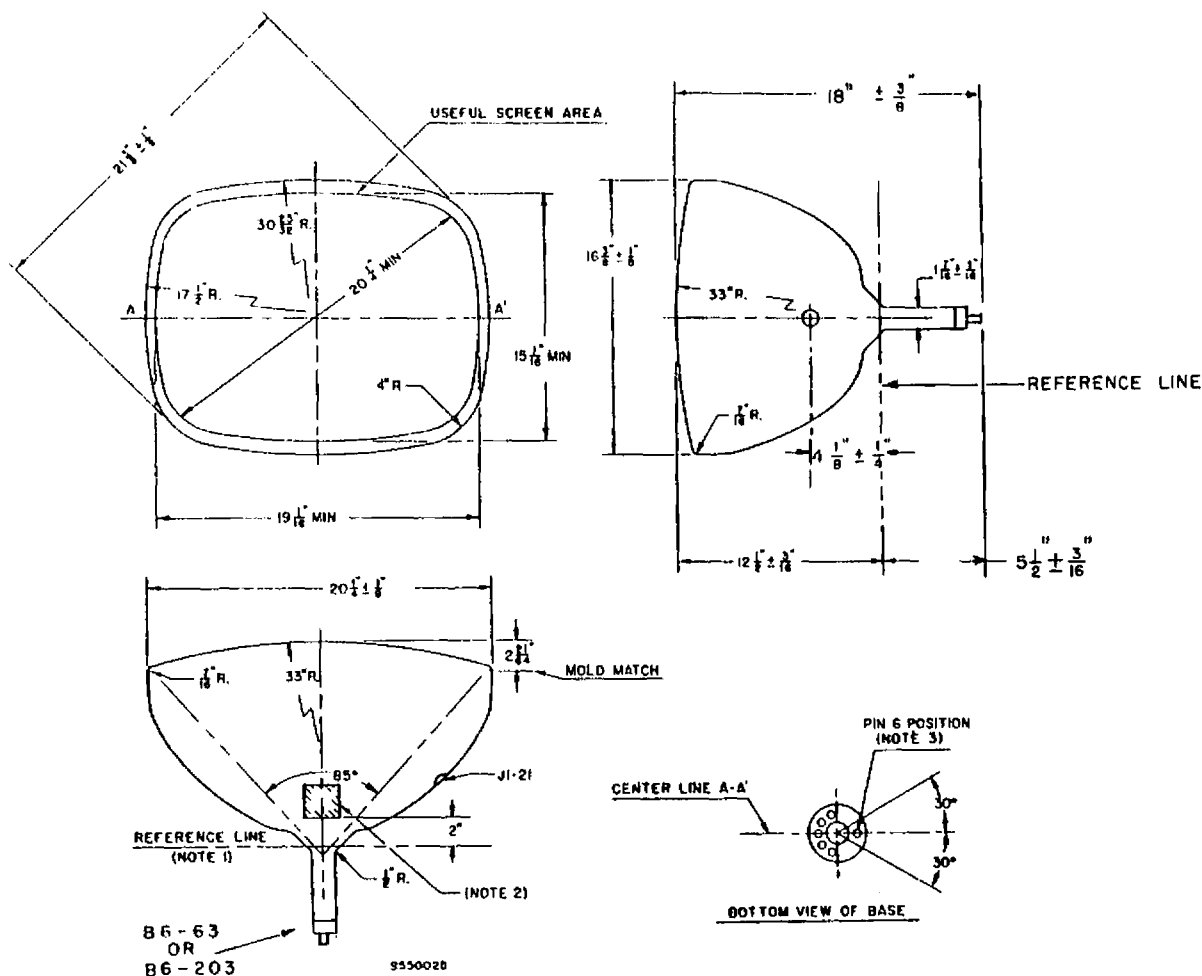


DIAGRAM NOTES:

1. Reference line is determined by the plane C-C' of JETEC No. 116 reference line gauge when the gauge is seated against the glass cone.
2. Contact area for external conductive coating, 2" x 2", located 90° counterclockwise from anode contact as viewed from base end of tube.
3. Pin position No. 6 aligns with horizontal centerline within 30° and is on same side as anode contact (J1-21).

WARNING:

X-ray radiation shielding may be necessary to protect against possible danger of personal injury from prolonged exposure at close range if this tube is operated at higher than the manufacturer's Maximum Rated Anode Voltage or 16,000 volts, whichever is less.