

DESCRIPTION

23" Direct View
Rectangular Glass Envelope
Gray Filter Glass
Aluminized Screen
6.3 Volts, 600 Ma. Heater

Bonded Implosion Panel
92° Magnetic Deflection
Electrostatic Focus
External Conductive Coating
No Ion Trap

ELECTRICAL DATA

Focusing Method	Electrostatic
Deflection Angles (Approximate)	
Horizontal	81 Degrees
Vertical	66 Degrees
Diagonal	92 Degrees
Direct Interelectrode Capacitances	
Cathode to all other electrodes (approx.)	5 uuf
Grid #1 to all other electrodes (approx.)	6 uuf
External Conductive Coating to Anode	2,500 max. uuf
	2,000 min. uuf
Heater Current at 6.3 volts	600+ 10% Ma
Heater Warm-up time	11 Seconds

OPTICAL DATA

Phosphor Number	P4 Aluminized ¹
Light Transmittance at Center (approx.)	46 Percent

MECHANICAL DATA

Overall Length	18 3/16 ± 7/16 inches
Greatest Dimensions of Tube	
Diagonal	23 7/16 ± 1/8 inches
Width	20 1/2 ± 1/8 inches
Height	16 1/2 ± 1/8 inches
Minimum Useful Screen Dimensions (Projected)	
Diagonal	22 5/16 inches
Horizontal Axis	19 5/16 inches
Vertical Axis	15 1/4 inches
Area	282 Sq. inches
Neck Length	5 1/2 ± 3/16 inches
Bulb	J187D1
Implosion Panel	FP187B2
Bulb Contact	J1-21
Base	86-203
Basing	12L
Bulb Contact Alignment	
J1-21 contact aligns with pin position #6 ± 30 degrees	

from JEDEC release #4821, Oct. 5, 1964

23EDP4

RATINGS (Design Maximum System)

Unless otherwise specified, voltage values are positive and measured with respect to cathode.

Maximum Anode Voltage	25,000 Volts
Minimum Anode Voltage	16,000 Volts
Maximum Grid #4 (Focusing Electrode) voltage	+1100-550
Maximum Grid #2 Voltage	550 Volts
Minimum Grid #2 Voltage	200 Volts
Grid #1 Voltage	
Maximum Negative Value	155 Volts DC
Maximum Negative Peak Value	200 Volts
Maximum Positive Value	0 Volts
Maximum Positive Peak Value	2 Volts
Maximum Heater Voltage	7 Volts
Minimum Heater Voltage	5.8 Volts
Maximum Heater-Cathode Voltage	
Heater negative with respect to cathode	
During warm-up time no to exceed 15 seconds	450 Volts
After equipment warm-up period	200 Volts
Heater positive with respect to cathode	200 Volts

TYPICAL OPERATING CONDITIONS

GRID DRIVE SERVICE

Unless otherwise specified, all voltage values are positive with respect to cathode.

Anode Voltage	20,000 Volts DC
Grid #4 (Focusing Electrode) voltage	
(Notes 2 and 3)	250 Volts DC
Grid #2 Voltage	300 Volts DC
Grid #1 Voltage (Note 1)	-35 to -72 Volts DC

MAXIMUM CIRCUIT VALUES

Maximum Grid #1 circuit resistance	1.5 Megohms
------------------------------------	-------------

NOTES

1. Visual extinction of focused raster.
2. With the combined Grid #1 bias voltage and video-signal voltage adjusted to give an anode current of 200 micro-amperes on a 19 5/16" x 15 1/4" pattern from RCA 2F21 Monoscope or equivalent.
3. Individual tubes will have satisfactory focus at some value between 0 and 500 volts

