

23HWP4A

Picture Tube

PAN-O-PLY TYPE WITH MOUNTING LUGS
 110° MAGNETIC DEFLECTION LOW GRID-No.2 VOLTAGE

ELECTRICAL

Direct Interelectrode Capacitances

Cathode to all other electrodes. . .	5	pF
Grid No.1 to all other electrodes. . .	6	pF
External conductive coating to anode ^a	1700 min—2500 max	pF
Heater Current at 6.3 V.	450 ± 20	mA
Heater Warm-Up Time (Average).	11	s
Electron Gun	Type Requiring No Ion-Trap Magnet	

OPTICAL

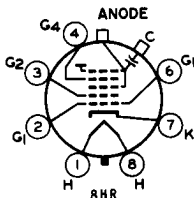
Phosphor	P4—Sulfide Type, Aluminized
For curves, see front of this section	
Faceplate.	Filterglass
Light transmission at center (Approx.)	42%

MECHANICAL

Weight (Approx.)	28 lb
Overall Length	14.875 ± .281 in
Neck Length	5.125 ± .125 in
Projected Area of Screen	282 sq in
External Conductive Coating	
Type (See CRT OUTLINES 1 at front of this section) . . Regular-Band	
Contact area for grounding. Near Reference Line	
Cap.	Recessed Small Cavity (JEDEC no.J1-21)
Base	Small-Button Neeoightar 7-Pin, Arrangement 1, (JEDEC No.B7-208)

TERMINAL DIAGRAM (Bottom View)

- 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



- Cap - Anode (Grid No.3, Grid No.5, Screen Collector)
- C - External Conductive Coating

MAXIMUM AND MINIMUM RATINGS, DESIGN-MAXIMUM VALUES

Voltages are positive with respect to grid No.1

Anode Voltage.	12000 min—22000 max	V
Grid-No.4 Voltage		
Positive value	1250 max	V
Negative value	400 max	V
Grid-No.2 Voltage.	30 min—70 max	V
Cathode Voltage		
Negative peak value.	2 max	V
Negative bias value.	0 max	V
Positive bias value.	100 max	V
Positive peak value.	150 max	V



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Heater Voltage.	5.7 min—6.9 max	V
Peak Heater-Cathode Voltage		
Heater negative with respect to cathode:		
During equipment warm-up period ≤ 15 s	450 max	V
After equipment warm-up period.	300 max	V
Heater positive with respect to cathode:		
Combined AC & DC voltage.	200 max	V
DC component.	100 max	V

TYPICAL OPERATING CONDITIONS FOR CATHODE-DRIVE SERVICE

Voltages are positive with respect to grid No.1

Anode Voltage	16000	V
Grid-No.4 Voltage	0 to 400	V
Grid-No.2 Voltage	50	V
Cathode Voltage	32 to 50	V
For visual extinction of focused raster		
Field Strength.	0 to 10	G
Of required adjustable centering magnet		

MAXIMUM CIRCUIT VALUE

Grid-No.1 Circuit Resistance.	1.5 max	M Ω
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a Includes implosion protection hardware.

For X-radiation shielding considerations, see sheet
X-RADIATION PRECAUTIONS FOR CATHODE-RAY TUBES
 at front of this section

DIMENSIONAL OUTLINE

(Bulb J187K with Mounting Lugs)

