

Picture Tube

PAN-O-PLY TYPE
NO ION-TRAP MAGNET REQUIRED

LOW-VOLTAGE ELECTROSTATIC FOCUS
110° MAGNETIC DEFLECTION

Direct Interelectrode Capacitances

Cathode to all other electrodes . . .	5	pF
Grid No.1 to all other electrodes . . .	6	pF
External conductive coating to anode. .	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

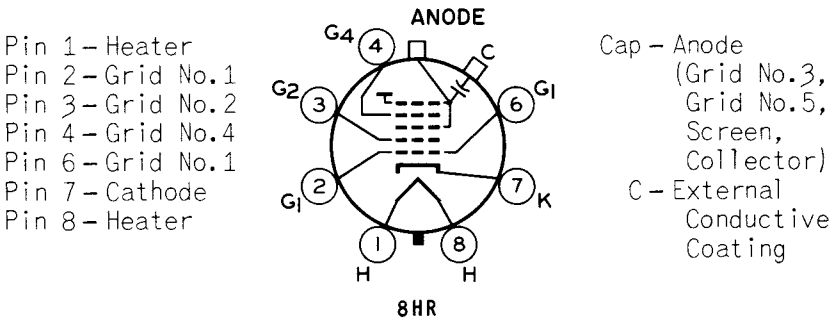
Phosphor.	P4—Sulfide Type, Aluminized
For curves, see front of this section	
Faceplate	Filterglass
Light transmission at center (Approx.).	42%

MECHANICAL

Weight (Approx.).	28.5 lb
Overall Length.	14.875 ± .281 in
Neck Length	5.125 ± .125 in
Projected Area of Screen.	282 sq in
External Conductive Coating ^a	

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 Neoeightar 7-Pin, Arrangement 1, (JEDEC No.B7-208)

TERMINAL DIAGRAM (Bottom View)



MAXIMUM AND MINIMUM RATINGS, DESIGN-MAXIMUM VALUES

Voltages are positive with respect to cathode

Anode Voltage	11000 min—23000 max	V
Grid-No.4 Voltage		
Positive value.	1100 max	V
Negative value.	550 max	V
Grid-No.2 Voltage	200 min—550 max	V
Grid-No.1 Voltage		
Negative peak value	220 max	V
Negative bias value	155 max	V
Positive bias value	0 max	V
Positive peak value	2 max	V
Heater Voltage.	5.7 min—6.9 max	V



23HGP4

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 18000 V

Grid-No.4 Voltage^b. 200 V

Grid-No.2 Voltage 300 V

Cathode Voltage 28 to 62 V

For visual extinction of focused raster

Field Strength. 0 to 12 G

Of required adjustable centering magnet

MAXIMUM CIRCUIT VALUE

Grid-No.1 Circuit Resistance. 1.5 max $M\Omega$

^a Includes implosion protection hardware.

^b The grid-No.4 voltage required for optimum focus of any individual tube will have a value anywhere between 0 and +400 volts with the combined grid-No.1 voltage and video-signal voltage adjusted to give an anode current of 200 microamperes on a 13-1/2-inch by 18-inch pattern from an RCA-2F21 monoscope, or equivalent.

DIMENSIONAL OUTLINE

For 23HGP4 (Bulb J187 K With Mounting Lugs)

