

Picture Tube

FILLED-RIM TYPE

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 ^a	1700 min—2500 max	pF
Heater Current at 6.3 V	600 ± 30	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%

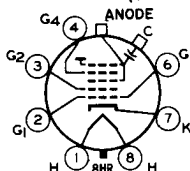
MECHANICAL

Weight (Approx.).	29 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 Neoeightar 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 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



23FSP4

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	0 to 400 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 Ω
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^a Includes implosion protection hardware.

DIMENSIONAL OUTLINE (Bulb J187 K)

DIMENSIONS IN INCHES

