

Picture Tube

PAN-O-PLY-INTEGRAL IMPLOSION PROTECTION
NO ION-TRAP MAGNET REQUIRED

114° MAGNETIC DEFLECTION
LOW-VOLTAGE ELECTROSTATIC FOCUS

Direct Interelectrode Capacitances

Cathode to all other electrodes	5	pF
Grid No.1 to all other electrodes	6	pF
External conductive coating to anode	1500 min—2300 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

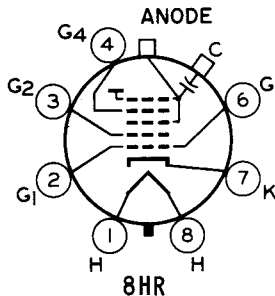
Phosphor	P4—Sulfide Type, Aluminized
For curves, see front of this section:	
Faceplate.	Filterglass
Light transmission at center (approx.)	46%

MECHANICAL

Weight (Approx.)	19 lb
Overall Length	12.656 ± .281 in
Neck Length.	4.375 ± .125 in
Projected Area of Screen	212 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 Neeightar 7-Pin, Arrangement I, (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



21FVP4

Peak Heater-Cathode Voltage

Heater negative with respect to cathode:

During equipment warm-up period ≤ 15 seconds . . . 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. 20000 V

Grid-No.4 Voltage^b 100 V

Grid-No.2 Voltage. 400 V

Cathode Voltage. 36 to 78 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

^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 -100 and +300 volts with the combined grid-No.1 voltage and video-signal voltage adjusted to give an anode current of 100 microamperes on a 11.750-inch by 15.500-inch pattern from an RCA-2F21 monoscope, or equivalent.

DIMENSIONAL OUTLINE (BULB J165-1/4 A)

