



# 8HP4

## Maximum and Minimum Ratings, Absolute-Maximum Values:

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

Anode Voltage. . . . .	14000 max.	volts
Grid-No.4 (Focusing) Voltage:		
Positive value . . . . .	1100 max.	volts
Negative value . . . . .	550 max.	volts
Grid-No.2 Voltage. . . . .	550 max.	volts
Grid-No.1 Voltage:		
Negative peak value. . . . .	220 max.	volts
Negative bias value. . . . .	155 max.	volts
Positive bias value. . . . .	0 max.	volts
Positive peak value. . . . .	2 max.	volts
Heater Voltage . . . . .	{ 6.9 max.	volts
	{ 5.7 min.	volts
Peak Heater-Cathode Voltage:		
Heater negative with respect to cathode . . . . .	180 max.	volts
Heater positive with respect to cathode . . . . .	180 max.	volts

## Typical Operating Conditions for Grid-Drive Service:

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

Anode Voltage. . . . .	11000	volts
Grid-No.4 Voltage. . . . .	0 to 300	volts
Grid-No.2 Voltage. . . . .	300	volts
Grid-No.1 Voltage for visual extinction of focused raster . . . . .	-28 to -72	volts

## Maximum Circuit Values:

Grid-No.1-Circuit Resistance . . . . .	1.5 max.	megohms
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For X-radiation shielding considerations, see sheet  
*X-RADIATION PRECAUTIONS FOR CATHODE-RAY TUBES*  
at front of this Section.



## Monitor Kinescope

NO ION-TRAP MAGNET REQUIRED

RECTANGULAR GLASS TYPE  
LOW-VOLTAGE ELECTROSTATIC FOCUS

ALUMINIZED SCREEN  
90° MAGNETIC DEFLECTION

### Electrical:

Direct Interelectrode Capacitances:

Cathode to all other electrodes. . . . .	5	pf
Grid No.1 to all other electrodes. . . . .	6	pf
Heater Current at 6.3 volts. . . . .	600 ± 30	ma
Heater Warm-up Time (Average). . . . .	11	seconds
Electron Gun . . . . .	Type Requiring No Ion-Trap Magnet	

### Optical:

Phosphor (for curves, see front of this section). . . . .	.P4—Sulfide Type, Aluminized
Faceplate. . . . .	Filterglass
Light transmission at center (Approx.). . . . .	80%

### Mechanical:

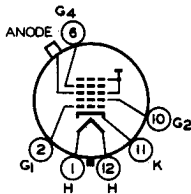
Weight (Approx.) . . . . .	2-1/2 lbs
Overall Length . . . . .	9.75" ± .19"
Neck Length. . . . .	5.81" ± .12"
Projected Area of Screen . . . . .	36 sq.in.
External Conductive Coating. . . . .	None

For Additional Information on Dimensions:

See *Bulb J67-1/2A* sheets at front of this Section.

Cap. . . . .	Recessed Small Cavity (JEDEC No.J1-21)
Base . . . . .	Small-Shell Duodecal 6-Pin (JEDEC Group 4, No.B6-63)
Basing Designation for BOTTOM VIEW . . . . .	12M

- Pin 1—Heater
- Pin 2—Grid No.1
- Pin 6—Grid No.4
- Pin 10—Grid No.2
- Pin 11—Cathode
- Pin 12—Heater



Cap—Anode  
(Grid No.3,  
Grid No.5,  
Screen,  
Collector)

### Maximum and Minimum Ratings, Design-Maximum Values:

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

Anode Voltage . . . . .	22000 max.	volts
Grid-No.4 Voltage:		
Positive value. . . . .	1100 max.	volts
Negative value. . . . .	550 max.	volts
Grid-No.2 Voltage . . . . .	550 max. 200 min.	volts
		volts
Grid-No.1 Voltage:		
Negative peak value . . . . .	220 max.	volts
Negative bias value . . . . .	155 max.	volts



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Positive bias value. . . . .	0 max.	volts
Positive peak value. . . . .	2 max.	volts
Heater Voltage . . . . .	{ 6.9 max.	volts
	{ 5.7 min.	volts

## Peak Heater-Cathode Voltage:

Heater negative with respect to cathode:		
During equipment warm-up period not exceeding 15 seconds . . . . .	450 max.	volts
After equipment warm-up period . . . . .	200 max.	volts
Heater positive with respect to cathode:		
Combined AC and DC Voltage . . . . .	200 max.	volts
DC Component . . . . .	100 max.	volts

## Typical Operating Conditions for Grid-Drive Service:

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

Anode Voltage. . . . .	16000	volts
Grid-No.4 Voltage <sup>a</sup> . . . . .	200	volts
Grid-No.2 Voltage . . . . .	300	volts
Grid-No.1 Voltage for visual extinction of focused raster . . . . .	-28 to -72	volts

## Maximum Circuit Value:

Grid-No.1 Circuit Resistance . . . . .	1.5 max.	megohms
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<sup>a</sup> The grid-No.4 voltage required for optimum focus of any individual tube will have a value anywhere between 0 to +400 volts.

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

