

## Picture Tube

**SHORT RECTANGULAR GLASS TYPE**  
**LOW-VOLTAGE ELECTROSTATIC FOCUS**  
**LOW GRID-NO.2 VOLTAGE**

**ALUMINIZED SCREEN**  
**114° MAGNETIC DEFLECTION**  
**CATHODE-DRIVE TYPE**

**With Heater Having Controlled Warm-Up Time**

### GENERAL DATA

#### Electrical:

Heater Current at 6.3 volts . . . . .	600 ± 30	ma
Heater Warm-Up Time (Average) . . . . .	11	seconds
Direct Interelectrode Capacitances:		
Grid No.1 to all other electrodes . . . . .	6	μf
Cathode to all other electrodes . . . . .	5	μf
External conductive coating to ultor. . . . .	{1500 max.	μf
	{1000 min.	μf
Electron Gun. . . . .	Type Requiring No Ion-Trap Magnet	

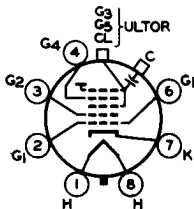
#### Optical:

Faceplate . . . . .	Filterglass
Light transmission (Approx.). . . . .	78%
Phosphor (for curves, see front of this section). . . . .	P4—Sulfide Type, Aluminized

#### Mechanical:

Operating Position. . . . .	Any
Weight (Approx.). . . . .	14 lbs
Overall Length. . . . .	11-5/8" ± 1/4"
Neck Length. . . . .	4-3/8" ± 1/8"
Projected Area of Screen. . . . .	172 sq. in.
External Conductive Coating:	
Type. . . . .	Regular Band
Contact area for grounding. . . . .	Near Reference Line
For Additional Information on Coatings and Dimensions:	
See <i>Picture-Tube Dimensional-Outlines</i> and <i>Bulb J149 A</i> sheets at the front of this section	
Cap . . . . .	Recessed Small Cavity (JEDEC No.J1-21)
Base. . . . .	Small-Button Neoeightar 7-Pin, Arrangement 1 (JEDEC No.B7-208)
Basing Designation for BOTTOM VIEW. . . . .	8HR

- 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 - Ultor (Grid No.3, Grid No.5, Collector)
- C - External Conductive Coating



# 19CHP4

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

ULTOR-TO-GRID-No.1 VOLTAGE. . . . .	{ 20000 max. 10000 min.	volts volts
GRID-No.4-TO-GRID-No.1 (FOCUSING) VOLTAGE:		
Positive value. . . . .	1250 max.	volts
Negative value. . . . .	400 max.	volts
GRID-No.2-TO-GRID-No.1 VOLTAGE. . . . .	{ 70 max. 40 min.	volts volts
CATHODE-TO-GRID-No.1 VOLTAGE:		
Positive peak value . . . . .	150 max.	volts
Positive bias value . . . . .	100 max.	volts
Negative bias value . . . . .	0 max.	volts
Negative peak value . . . . .	2 max.	volts
HEATER VOLTAGE. . . . .	{ 6.9 max. 5.7 min.	volts 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. . . . .	200 max.	volts

## Typical Operating Conditions:

With ultor-to-grid-No.1 voltage of	16000	volts
and grid-No.2-to-grid-No.1 voltage of	50	volts
Grid-No.4-to-Grid-No.1 Voltage for focus . . .	-50 to +250	volts
Cathode-to-Grid-No.1 Voltage for visual extinction of focused raster . . .	32 to 50	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

