# 19CXP4

## Picture Tube

NO ION-TRAP MAGNET REQUIRED

LOW-VOLTAGE ELECTROSTATIC FOCUS 114° MAGNETIC DEFLECTION

*Low-Grid-No.2 Voltage — for Cathode-Drive Operation*

### ELECTRICAL

| | | |
|---|---|---|
| **Direct Interelectrode Capacitances** | | |
| Cathode to all other electrodes | 5 | pF |
| Grid No.1 to all other electrodes | 6 | pF |
| External conductive coating to anode | 1900 max<br>1400 min | pF<br>pF |
| **Heater Current at 6.3 V** | 600 ±60 | mA |
| **Heater Warm-Up Time (Average)** | 11 | s |
| **Electron Gun** | Type Requiring No Ion-Trap Magnet | |

### OPTICAL

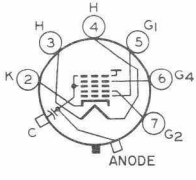
**Phosphor** . . . . . P4—Sulfide Type, Aluminized
For curves, see front of this section

**Faceplate** . . . . . Filterglass
Light transmission (Approx.) . . . . . 78%

### MECHANICAL

**Weight (Approx.)** . . . . . 14 lb
**Overall Length** . . . . . 11.625 ± 0.250 in
**Neck Length** . . . . . 4.375 ± 0.125 in
**Projected Area of Screen** . . . . . 172 sq in
**External Conductive Coating**
Type . . . . . Regular-Band
Contact area for grounding . . . . . Near Reference Line
**For Addition Information on Coatings and Dimensions**
See *Picture-Tube Dimensional-Outlines* and *Bulb J149A* sheets at front of this section
**Cap** . . . . . Recessed Small Cavity (JEDEC No.J1-21)
**Base** . . . . . Special 6-Pin (JEDEC No.B6-214)
**Basing Designation for BOTTOM VIEW** . . . . . 7FA

Pin 2 – Cathode
Pin 3 – Heater
Pin 4 – Heater
Pin 5 – Grid No.1
Pin 6 – Grid No.4
Pin 7 – Grid No.2
Cap – Anode (Grid No.3, Grid No.5, Screen, Collector)
C – External Conductive Coating



## MAXIMUM AND MINIMUM RATINGS, DESIGN-MAXIMUM VALUES

*Unless otherwise specified, voltage values are positive with respect to grid No.1*

| | | |
|---|---|---|
| Anode Voltage | 20000 max<br>12000 min | V<br>V |
| Grid-No.4 (Focusing) Voltage | | |
| Positive value | 1100 max | V |
| Negative value | 500 max | V |
| Grid-No.2 Voltage | 55 max<br>30 min | V<br>V |
| Cathode Voltage | | |
| Negative peak value | 2 max | V |
| Negative bias value | 0 max | V |
| Positive bias value | 100 max | V |
| Positive peak value | 150 max | V |
| Heater Voltage | 6.9 max<br>5.7 min | V<br>V |
| Peak Heater-Cathode Voltage | | |
| Heater negative with respect to cathode: | | |
| During equipment warm-up period not exceeding 15 seconds | 450 max | V |
| After equipment warm-up period | 200 max | V |
| Heater positive with respect to cathode: | | |
| Combined AC and DC voltage | 200 max | V |
| DC component | 100 max | V |

## TYPICAL OPERATING CONDITIONS FOR CATHODE-DRIVE SERVICE

*Unless otherwise specified, voltage values are positive with respect to grid No.1*

| | | |
|---|---|---|
| Anode Voltage | 16000 | V |
| Grid-No.4 Voltage | 0 to 500 | V |
| Grid-No.2 Voltage | 45 | V |
| Cathode Voltage | 35 to 50 | V |
| For visual extinction of focused raster | | |

## MAXIMUM CIRCUIT VALUE

| | | |
|---|---|---|
| Grid-No.1 Circuit Resistance | 1.5 max | MΩ |

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