

## TUNG-SOL

## CATHODE RAY

COATED UNIPOTENTIAL CATHODE

HEATER

6.3 VOLTS 0.6 AMPERE

AC OR DC

ANY MOUNTING POSITION

THE 12LP4 IS A DIRECTLY VIEWED PICTURE TUBE DESIGNED FOR USE IN TELEVISION RECEIVERS. THE TUBE UTILIZES MAGNETIC DEFLECTION AND MAGNETIC FOCUS TO PROVIDE 7 1/2" X 10" PICTURES.

## DESCRIPTION

|                                                           |                           |
|-----------------------------------------------------------|---------------------------|
| FLUORSCENCE                                               | WHITE                     |
| PERSISTENCE                                               | MEDIUM                    |
| DEFLECTION AND FOCUSING METHOD                            | MAGNETIC                  |
| DEFLECTION ANGLE (APPROX.)                                | 54 DEGREES                |
| EXTERNAL COATING WHEN GROUNDED ACTS AS A FILTER CAPACITOR |                           |
| ELECTRON GUN TO BE USED WITH ION-TRAP MAGNET              |                           |
| BULB CONTACT                                              | RECESSED SMALL CAVITY CAP |

## DIRECT INTERELECTRODE CAPACITANCES - APPROX.

|                                                                             |       |    |
|-----------------------------------------------------------------------------|-------|----|
| CATHODE TO ALL OTHER ELECTRODES: K TO (H+G <sub>1</sub> +G <sub>2</sub> +A) | 5     | μf |
| GRID #1 TO ALL OTHER ELECTRODES: G <sub>1</sub> TO (H+K+G <sub>2</sub> +A)  | 6     | μf |
| MAXIMUM EXTERNAL CONDUCTIVE COATING TO ANODE                                | 3 000 | μf |
| MINIMUM EXTERNAL CONDUCTIVE COATING TO ANODE                                | 750   | μf |

## RATINGS

INTERPRETED ACCORDING TO RMA STANDARD M8-210

## DESIGN CENTER VALUES

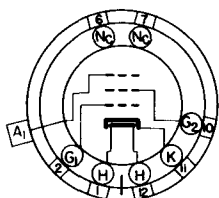
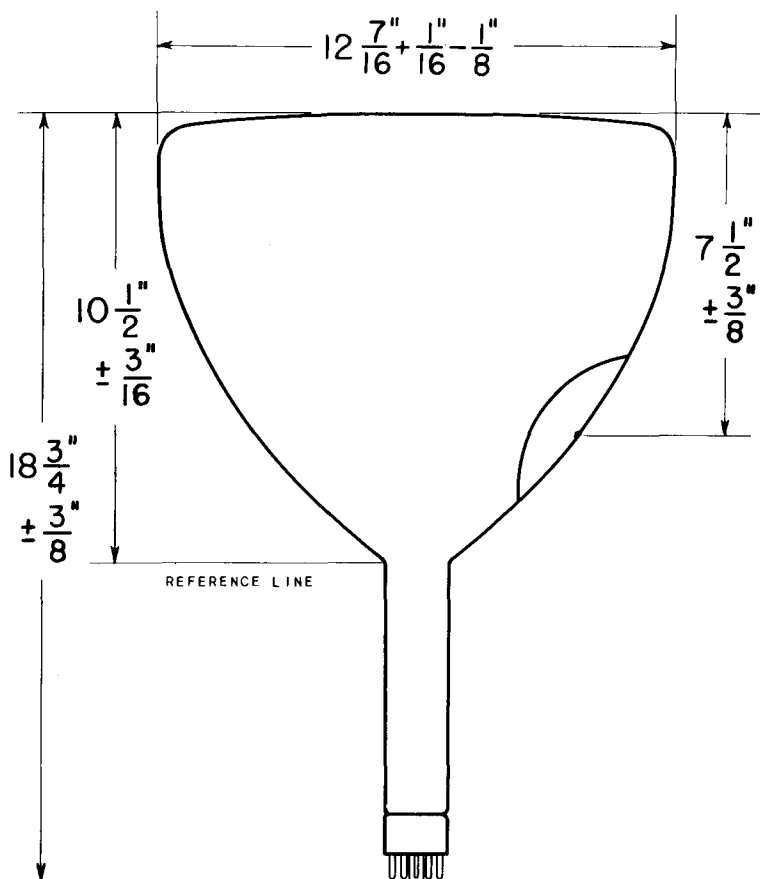
|                                                                                                  |        |       |
|--------------------------------------------------------------------------------------------------|--------|-------|
| HEATER VOLTAGE                                                                                   | 6.3    | VOLTS |
| MAXIMUM ANODE VOLTAGE                                                                            | 12 000 | VOLTS |
| MAXIMUM GRID #2 VOLTAGE                                                                          | 410    | VOLTS |
| MAXIMUM GRID #1 VOLTAGE:                                                                         |        |       |
| NEGATIVE BIAS VOLTAGE                                                                            | 125    | VOLTS |
| POSITIVE BIAS VOLTAGE                                                                            | 0      | VOLTS |
| POSITIVE PEAK VOLTAGE                                                                            | 2      | VOLTS |
| MAXIMUM PEAK HEATER CATHODE VOLTAGE:                                                             |        |       |
| HEATER NEGATIVE WITH RESPECT TO CATHODE DURING EQUIPMENT WARM-UP PERIOD NOT EXCEEDING 15 SECONDS | 125    | VOLTS |
| HEATER POSITIVE WITH RESPECT TO CATHODE                                                          | 125    | VOLTS |

## TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

|                                              |            |         |
|----------------------------------------------|------------|---------|
| HEATER VOLTAGE                               | 6.3        | VOLTS   |
| HEATER CURRENT                               | 0.6        | AMP.    |
| ANODE VOLTAGE <sup>A</sup>                   | 11 000     | VOLTS   |
| GRID #2 VOLTAGE                              | 250        | VOLTS   |
| GRID #1 VOLTAGE <sup>B</sup>                 | -27 TO -63 | VOLTS   |
| FOCUSING COIL CURRENT (APPROX.) <sup>C</sup> | 110        | MA.     |
| ION-TRAP CURRENT (APPROX.) <sup>D</sup>      | 120        | MA.     |
| GRID #1 CIRCUIT RESISTANCE                   | 1.5        | MEGOHMS |

<sup>A</sup> ANODE CONTACT ALIGNS WITH VACANT PIN POSITION #3 ± 10 DEGREES.<sup>B</sup> VISUAL EXTINCTION OF UNDEFLECTED FOCUSED SPOT.<sup>C</sup> FOR JETEC STANDARD FOCUS COIL WITH THE COMBINED GRID #1 BIAS VOLTAGE AND VIDEO -- SIGNAL VOLTAGE ADJUSTED TO PRODUCE A HIGHLIGHT BRIGHTNESS OF 20 FOOT LAMBERTS ON A 7x10 INCH PICTURE AREA, DISTANCE FROM REFERENCE LINE OF BULB TO CENTER OF FOCUS COIL AIR GAP SHALL BE 3.25 IN.<sup>D</sup> WITH JETEC STANDARD ION-TRAP MAGNET.

## TUNG-SOL



SMALL SHELL DUODECAL  
7 PIN BASE  
120

1. HEATER
2. GRID NO. 1
6. NO CONNECTION
7. NO CONNECTION
10. GRID NO. 2
11. CATHODE
12. HEATER
- CAP. ANODE NO. 1