

**TUNG-SOL****CATHODE RAY**

THE 17BVP4 IS A VERY SHORT, DIRECT-VIEW PICTURE TUBE DESIGNED FOR TELEVISION APPLICATIONS. ITS FEATURES INCLUDE:

|                                       |                                       |
|---------------------------------------|---------------------------------------|
| <b>ALUMINIZED SCREEN</b>              | <b>ELECTROSTATIC FOCUS</b>            |
| <b>MAGNETIC DEFLECTION</b>            | <b>UNIPOENTIAL CATHODE</b>            |
| <b>GRAY FILTER FACEPLATE</b>          | <b>EXTERNAL CONDUCTIVE COATING</b>    |
| <b>14 3/4 X 11 3/4 RASTER SIZE</b>    | <b>EXTERNAL SINGLE FIELD ION TRAP</b> |
| <b>RECTANGULAR GLASS CONSTRUCTION</b> | <b>CONTROLLED HEATER WARM-UP TIME</b> |

**ELECTRICAL DATA**

|                                               |      | ELECTROSTATIC |
|-----------------------------------------------|------|---------------|
| FOCUSING METHOD                               |      | MAGNETIC      |
| DEFLECTING METHOD                             |      |               |
| DEFLECTION ANGLE (APPROX.):                   |      |               |
| HORIZONTAL                                    | 105  | DEGREES       |
| VERTICAL                                      | 87   | DEGREES       |
| DIAGONAL                                      | 110  | DEGREES       |
| DIRECT INTERELECTRODE CAPACITANCES (APPROX.): |      |               |
| CATHODE TO ALL OTHER ELECTRODES               | 5    | $\mu\text{f}$ |
| GRID #1 TO ALL OTHER ELECTRODES               | 6    | $\mu\text{f}$ |
| MAXIMUM EXTERNAL CONDUCTIVE COATING TO ANODE  | 1500 | $\mu\text{f}$ |
| MINIMUM EXTERNAL CONDUCTIVE COATING TO ANODE  | 1000 | $\mu\text{f}$ |

**OPTICAL DATA**

|                                             |                 |         |
|---------------------------------------------|-----------------|---------|
| PHOSPHOR NUMBER                             | SULFIDE TYPE    | P-4     |
| FLUORESCENT COLOR                           |                 | WHITE   |
| PHOSPHORESCENT COLOR                        |                 | WHITE   |
| PERSISTENCE                                 | SHORT TO MEDIUM |         |
| FACEPLATE TRANSMISSION AT CENTER (APPROX.): | 79              | PERCENT |

**RATINGS**

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

|                                                |               |         |
|------------------------------------------------|---------------|---------|
| HEATER VOLTAGE                                 | 6.3           | VOLTS   |
| HEATER CURRENT                                 | 0.6 $\pm 5\%$ | AMP.    |
| MAXIMUM DC ANODE VOLTAGE                       | 17 600        | VOLTS   |
| MAXIMUM DC GRID #4 VOLTAGE                     | -550 TO +1100 | VOLTS   |
| MAXIMUM DC GRID #2 VOLTAGE                     | 550           | VOLTS   |
| MAXIMUM GRID #1 VOLTAGE:                       |               |         |
| DC NEGATIVE-BIAS VALUE                         | 154           | VOLTS   |
| DC POSITIVE-BIAS VALUE                         | 0             | VOLTS   |
| POSITIVE-PEAK VALUE                            | 2             | VOLTS   |
| MAXIMUM DC PEAK HEATER-CATHODE VOLTAGE:        |               |         |
| HEATER NEGATIVE WITH RESPECT TO CATHODE        |               |         |
| DURING WARM-UP PERIOD NOT TO EXCEED 15 SECONDS | 450           | VOLTS   |
| AFTER EQUIPMENT WARM-UP PERIOD                 | 200           | VOLTS   |
| HEATER POSITIVE WITH RESPECT TO CATHODE        | 200           | VOLTS   |
| MAXIMUM GRID #1 CIRCUIT RESISTANCE             | 1.5           | MEGOHMS |
| HEATER WARM-UP TIME (APPROX.)*                 | 11.0          | SECONDS |

**TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS**

|                                   |             |          |
|-----------------------------------|-------------|----------|
| DC ANODE VOLTAGE                  | 14 000      | VOLTS    |
| DC GRID #4 VOLTAGE                | -50 TO +350 | VOLTS    |
| DC GRID #2 VOLTAGE                | 300         | VOLTS    |
| DC GRID #1 VOLTAGE <sup>A</sup>   | -35 TO -72  | VOLTS    |
| DC ION TRAP MAGNET RATED STRENGTH | 33          | GAUSSSES |

<sup>A</sup>VISUAL EXTINCTION OF FOCUSED RASTER.

\*HEATER WARM-UP TIME IS THE TIME REQUIRED FOR THE VOLTAGE ACROSS THE HEATER TERMINALS TO INCREASE TO 5.0 VOLTS IN THE JETEC TEST CIRCUIT, WITH E=25 VOLTS AND SERIES R=31.5 OHMS.

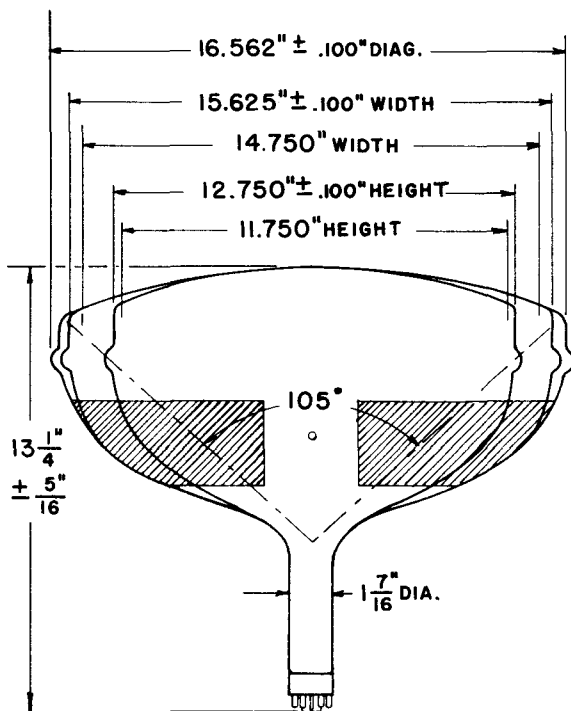
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## TUNG-SOL

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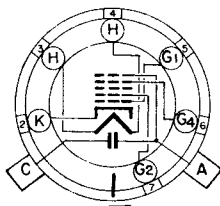
## MECHANICAL DATA

|                                                        |                           |        |
|--------------------------------------------------------|---------------------------|--------|
| OVERALL LENGTH                                         | 13 1/4 ± 5/16             | INCHES |
| GREATEST DIMENSIONS OF BULB:                           |                           |        |
| DIAGONAL                                               | 16.562 ± .100             | INCHES |
| WIDTH                                                  | 15.625 ± .100             | INCHES |
| HEIGHT                                                 | 12.750 ± .100             | INCHES |
| MIN. USEFUL SCREEN DIMENSIONS:                         |                           |        |
| DIAGONAL                                               | 15.750                    | INCHES |
| WIDTH                                                  | 14.750                    | INCHES |
| HEIGHT                                                 | 11.750                    | INCHES |
| BULB CONTACT                                           | RECESSED SMALL CAVITY CAP | J1-21  |
| BASE                                                   |                           | 86-485 |
| BASING                                                 |                           | 7FA    |
| BULB CONTACT ALIGNMENT                                 |                           |        |
| J1-21 CONTACT ALIGNS WITH PIN POSITION #7 ± 30 DEGREES |                           |        |



## PIN CONNECTIONS

PIN 2 - CATHODE  
 PIN 3 - HEATER  
 PIN 4 - HEATER  
 PIN 5 - GRID #1  
 PIN 6 - GRID #2  
 PIN 7 - GRID #2



BOTTOM VIEW

ANODE CAP:  
 GRID NO. 3