

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

THE 17BZP4 IS A VERY SHORT DIRECT-VIEW PICTURE TUBE DESIGNED FOR TELEVISION APPLICATIONS. ITS FEATURES INCLUDE:

|                                 |                                |
|---------------------------------|--------------------------------|
| ALUMINIZED SCREEN               | ELECTROSTATIC FOCUS            |
| MAGNETIC DEFLECTION             | UNIPOTENTIAL CATHODE           |
| GRAY FILTER FACEPLATE           | DOES NOT REQUIRE ION TRAP      |
| EXTERNAL CONDUCTIVE COATING     | RECTANGULAR GLASS CONSTRUCTION |
| 14 3/4" X 11 11/16" RASTER SIZE |                                |

**ELECTRICAL DATA**

| FOCUSING METHOD                              | ELECTROSTATIC |            |
|----------------------------------------------|---------------|------------|
| DEFLECTING METHOD                            | MAGNETIC      |            |
| DEFLECTION ANGLE (APPROX.):                  |               |            |
| HORIZONTAL                                   | 105           | DEGREES    |
| VERTICAL                                     | 87            | DEGREES    |
| DIAGONAL                                     | 110           | DEGREES    |
| DIRECT INTERELECTRODE CAPACITANCES (APPROX.) |               |            |
| CATHODE TO ALL OTHER ELECTRODES              | 5             | $\mu\mu f$ |
| GRID #1 TO ALL OTHER ELECTRODES              | 6             | $\mu\mu f$ |
| MAXIMUM EXTERNAL CONDUCTIVE COATING TO ANODE | 1500          | $\mu\mu f$ |
| MINIMUM EXTERNAL CONDUCTIVE COATING TO ANODE | 800           | $\mu\mu f$ |

**OPTICAL DATA**

| PHOSPHOR NUMBER                             | SULFIDE TYPE | P-4     |
|---------------------------------------------|--------------|---------|
| FLUORESCENT COLOR                           |              | WHITE   |
| PHOSPHORESCENT COLOR                        |              | WHITE   |
| PERSISTENCE                                 |              | SHORT   |
| FACEPLATE TRANSMISSION AT CENTER (APPROX.): | 78           | PERCENT |

**RATINGS**

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM  
GRID DRIVE SERVICE<sup>A</sup>

|                                         |               |          |
|-----------------------------------------|---------------|----------|
| HEATER VOLTAGE                          | 6.3           | VOLTS    |
| HEATER CURRENT                          | 0.6           | AMP.     |
| MAXIMUM DC ANODE VOLTAGE                | 16 000        | VOLTS    |
| MAXIMUM DC GRID #4 VOLTAGE              | -500 TO +1000 | VOLTS    |
| MAXIMUM DC GRID #2 VOLTAGE              | 500           | VOLTS    |
| MAXIMUM GRID #1 VOLTAGE:                |               |          |
| DC NEGATIVE-BIAS VALUE                  | 140           | VOLTS    |
| DC POSITIVE-BIAS VALUE                  | 0             | VOLTS    |
| POSITIVE-PEAK VALUE                     | 2             | VOLTS    |
| MAXIMUM DC PEAK HEATER-CATHODE VOLTAGE: |               |          |
| HEATER NEGATIVE WITH RESPECT TO CATHODE | 180           | VOLTS    |
| HEATER POSITIVE WITH RESPECT TO CATHODE | 180           | VOLTS    |
| MAXIMUM GRID #1 CIRCUIT RESISTANCE      | 1.5           | MEG OHMS |

<sup>A</sup> GRID DRIVE IS THE OPERATING CONDITION IN WHICH THE VIDEO SIGNAL VARIES THE GRID #1 POTENTIAL WITH RESPECT TO CATHODE.

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**RATINGS - CONT'D.**  
 INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM  
 CATHODE DRIVE SERVICE<sup>B</sup>

|                                         |               |         |
|-----------------------------------------|---------------|---------|
| HEATER VOLTAGE                          | 6.3           | VOLTS   |
| HEATER CURRENT                          | 0.6           | AMP.    |
| MAXIMUM DC ANODE VOLTAGE                | 16 000        | VOLTS   |
| MAXIMUM DC GRID #4 VOLTAGE              | -500 TO +1000 | VOLTS   |
| MAXIMUM GRID #1 VOLTAGE:                |               |         |
| DC NEGATIVE-BIAS VALUE                  | 140           | VOLTS   |
| DC POSITIVE-BIAS VALUE                  | 0             | VOLTS   |
| POSITIVE-PEAK VALUE                     | 2             | VOLTS   |
| MAXIMUM DC PEAK HEATER-CATHODE VOLTAGE: |               |         |
| HEATER NEGATIVE WITH RESPECT TO CATHODE | 180           | VOLTS   |
| HEATER POSITIVE WITH RESPECT TO CATHODE | 180           | VOLTS   |
| MAXIMUM GRID #2 TO GRID #1 VOLTAGE      | 640           | VOLTS   |
| MAXIMUM GRID #2 TO CATHODE VOLTAGE      | 500           | VOLTS   |
| MAXIMUM GRID #1 CIRCUIT RESISTANCE      | 1.5           | MEGOHMS |

**TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS**

## GRID DRIVE SERVICE

|                                 |            |       |
|---------------------------------|------------|-------|
| DC ANODE VOLTAGE                | 14 000     | VOLTS |
| DC GRID #4 VOLTAGE              | 0 TO 400   | VOLTS |
| DC GRID #2 VOLTAGE              | 300        | VOLTS |
| DC GRID #1 VOLTAGE <sup>C</sup> | -28 TO -72 | VOLTS |

## CATHODE DRIVE SERVICE

|                                 |          |       |
|---------------------------------|----------|-------|
| DC ANODE VOLTAGE                | 14 000   | VOLTS |
| DC GRID #4 VOLTAGE              | 0 TO 400 | VOLTS |
| DC GRID #2 VOLTAGE              | 300      | VOLTS |
| DC GRID #1 VOLTAGE <sup>C</sup> | 28 TO 60 | VOLTS |

<sup>B</sup> CATHODE DRIVE IS THE OPERATING CONDITION IN WHICH THE VIDEO SIGNAL VARIES THE CATHODE POTENTIAL WITH RESPECT TO GRID #1 AND THE OTHER ELECTRODES.

<sup>C</sup> VISUAL EXTINCTION ON FOCUSED RASTER.

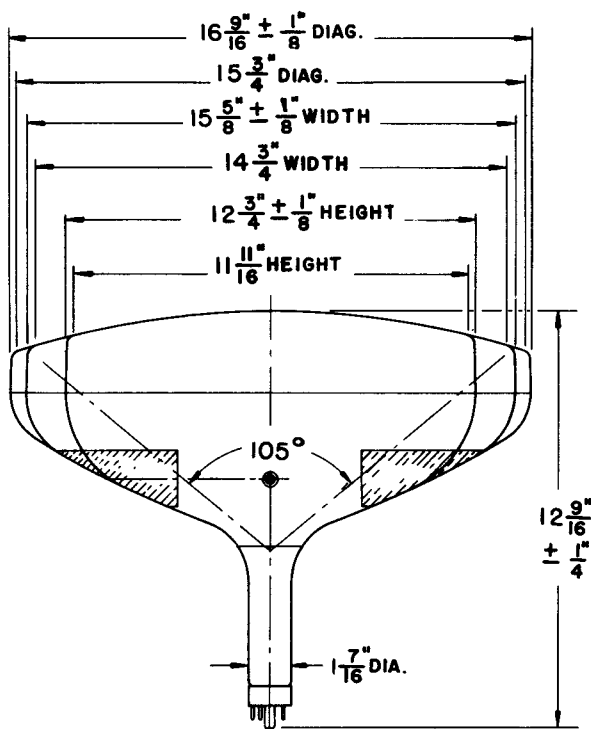
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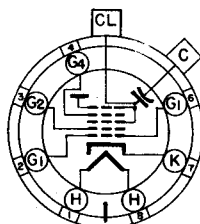
## MECHANICAL DATA

|                                                            |                                       |        |
|------------------------------------------------------------|---------------------------------------|--------|
| OVERALL LENGTH                                             | 12 $\frac{9}{16}$ $\pm$ $\frac{1}{4}$ | INCHES |
| GREATEST DIMENSIONS OF BULB:                               |                                       |        |
| DIAGONAL                                                   | 16 $\frac{9}{16}$ $\pm$ $\frac{1}{8}$ | INCHES |
| WIDTH                                                      | 15 $\frac{5}{8}$ $\pm$ $\frac{1}{8}$  | INCHES |
| HEIGHT                                                     | 12 $\frac{3}{4}$ $\pm$ $\frac{1}{8}$  | INCHES |
| MIN. USEFUL SCREEN DIMENSIONS:                             |                                       |        |
| DIAGONAL                                                   | 15 $\frac{3}{4}$                      | INCHES |
| WIDTH                                                      | 14 $\frac{3}{4}$                      | INCHES |
| HEIGHT                                                     | 11 $\frac{11}{16}$                    | INCHES |
| BULB CONTACT                                               | RECESSED SMALL CAVITY CAP             | J1-21  |
| BASE                                                       | SMALL BUTTON EIGHTAR 7 PIN-STYLE B    | B7-483 |
| BASING                                                     |                                       | 8HR    |
| BULB CONTACT ALIGNMENT                                     |                                       |        |
| J1-21 CONTACT ALIGNS WITH PIN POSITION #4 $\pm$ 30 DEGREES |                                       |        |



## PIN CONNECTIONS

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



PIN 8 - HEATER  
 ANODE CAP:  
 GRID NO. 3  
 GRID NO. 5

## BOTTOM VIEW