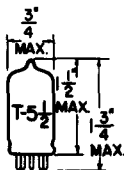


## TUNG-SOL

THYRATRON  
MINIATURE TYPE

GLASS BULB

## HEATER

6.3±10% VOLTS 0.15 AMP.

AC OR DC

ANY MOUNTING POSITION

BOTTOM VIEW  
MINIATURE BUTTON  
7 PIN BASE

78N

THE 5696 IS A XENON FILLED, FOUR ELECTRODE THYRATRON WITH NEGATIVE CONTROL CHARACTERISTICS. IT HAS FOUND WIDE USAGE AS A SWITCHING TUBE, AND IN GRID CONTROLLED RECTIFIER SERVICE. BECAUSE OF ITS SHIELD GRID CONSTRUCTION, THE INPUT OF THE 5696 WILL WORK DIRECTLY FROM A HIGH IMPEDANCE SOURCE SUCH AS A PHOTOTUBE. THE EFFECTIVE ANODE TO CONTROL GRID CAPACITY MAY BE REDUCED BY CONNECTING PINS #5 & 7 TO #2 AND CONNECTING THE GRID RESISTOR DIRECTLY AT THE SOCKET TERMINAL. THE SMALL SIZE AND LIGHT WEIGHT OF THE 5696 AND ITS RELATIVE FREEDOM FROM TEMPERATURE RESTRICTIONS MAKE THIS TUBE PARTICULARLY SUITED FOR USE IN COMPACT EQUIPMENT.

## ELECTRICAL DATA

|                                                         |         |                   |
|---------------------------------------------------------|---------|-------------------|
| HEATER VOLTAGE                                          | 6.3±10% | VOLTS             |
| HEATER CURRENT ( $E_f = 6.3$ VOLTS)                     | 0.15    | AMPS.             |
| MINIMUM CATHODE HEATING TIME                            | 10.     | SECONDS           |
| ANODE TO CONTROL GRID CAPACITANCE                       | 0.03    | $\mu\text{f}$     |
| CONTROL GRID TO CATHODE (& SHIELD GRID) CAPACITANCE     | 1.8     | $\mu\text{f}$     |
| DE-IONIZATION TIME, APPROX. (SHIELD TIED TO CATHODE)    |         |                   |
| WITH GRID VOLTS = -100, GRID RES. = 1000 $\Omega$       |         |                   |
| ANODE VOLTS = 500 ANODE CUR. .025 AMPS                  | 25      | $\mu\text{SEC.}$  |
| WITH GRID VOLTS = -15 GRID RES. = 1000 $\Omega$         |         |                   |
| ANODE VOLTS = 500 ANODE CUR. .025 AMPS                  | 40      | $\mu\text{SEC.}$  |
| IONIZATION TIME (APPROX.)                               | 0.5     | $\mu\text{SEC.}$  |
| ANODE VOLTAGE DROP (APPROX.)                            | 10      | VOLTS             |
| MAXIMUM CRITICAL GRID CURRENT (AT $E_{bb} = 350$ V.RMS) | 0.5     | $\mu\text{AMPS.}$ |

## MECHANICAL DATA

|                        |                        |        |
|------------------------|------------------------|--------|
| MOUNTING POSITION      | ANY                    |        |
| MAXIMUM OVERALL LENGTH | 1.75                   | INCHES |
| MAXIMUM SEATED LENGTH  | 1.50                   | INCHES |
| MAXIMUM DIAMETER       | 0.75                   | INCHES |
| BULB                   | T-5 1/2                |        |
| BASE                   | MINIATURE BUTTON 7 PIN |        |
| WEIGHT (NET)           | 0.3                    | OUNCES |

CONTINUED ON FOLLOWING PAGE

**TUNG-SOL**

CONTINUED FROM PRECEDING PAGE

**RATINGS**  
ABSOLUTE VALUES

|                                                |           |          |
|------------------------------------------------|-----------|----------|
| MAXIMUM PEAK ANODE VOLTAGE                     |           |          |
| INVERSE                                        | 500       | VOLTS    |
| FORWARD                                        | 500       | VOLTS    |
| MAXIMUM CATHODE CURRENT                        |           |          |
| PEAK                                           | 100       | MA.      |
| AVERAGE                                        | 25        | MA.      |
| SURGE (MAX. DURATION 0.1 SECONDS)              | 2.0       | AMP.     |
| MAXIMUM AVERAGE TIME                           | 30        | SECONDS  |
| MAXIMUM NEGATIVE CONTROL GRID VOLTAGE          |           |          |
| BEFORE CONDUCTION                              | -100      | VOLTS    |
| DURING CONDUCTION (AVERAGED OVER 30 SEC. MAX.) | -10       | VOLTS    |
| MAXIMUM POSITIVE CONTROL GRID CURRENT          |           |          |
| AVERAGE                                        | 5         | MA.      |
| MAXIMUM NEGATIVE SHIELD GRID VOLTAGE           |           |          |
| BEFORE CONDUCTION                              | -50       | VOLTS    |
| DURING CONDUCTION (AVERAGED OVER 30 SEC. MAX.) | -10       | VOLTS    |
| MAXIMUM POSITIVE SHIELD GRID CURRENT           |           |          |
| AVERAGE                                        | 5         | MA.      |
| MAXIMUM HEATER CATHODE VOLTAGE                 |           |          |
| HEATER NEGATIVE                                | -100      | VOLTS    |
| HEATER POSITIVE                                | 25        | VOLTS    |
| AMBIENT TEMPERATURE LIMITS                     | -75 TO 90 | °C       |
| MAXIMUM CONTROL GRID (G1) CIRCUIT RESISTANCE   | 10        | MEG OHMS |

