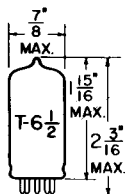


## TUNG-SOL

## DOUBLE-DIODE-TETRODE

## MINIATURE TYPE



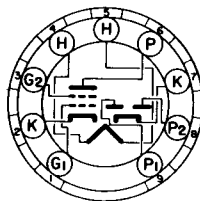
GLASS BULB

COATED UNIPOTENTIAL CATHODE

HEATER

12.6 VOLTS 0.325 AMP. ←  
AC OR DC

ANY MOUNTING POSITION

BOTTOM VIEW  
MINIATURE BUTTON  
9 PIN BASE

96C

THE 12J8 IS A MINIATURE DOUBLE-DIODE TETRODE DESIGNED FOR USE IN AUTO-MOBILE RECEIVERS. IT IS RATED FOR OPERATION FROM A 12.0 VOLT BATTERY SOURCE.

DIRECT INTERELECTRODE CAPACITANCES  
WITHOUT EXTERNAL SHIELD

## TETRODE

GRID TO PLATE

INPUT:  $G_1$  TO  $(H+TK+G_2)$ OUTPUT:  $P$  TO  $(H+TK+G_2)$ 

#2 DIODE PLATE TO TETRODE GRID #1 (MAX.)

#1 DIODE PLATE TO TETRODE GRID #1 (MAX.)

0.70 ←  $\mu\mu f$   
10.5 ←  $\mu\mu f$   
4.4 ←  $\mu\mu f$   
 $\mu\mu f$   
0.015  $\mu\mu f$   
0.04  $\mu\mu f$

## RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

|                                            |      |         |
|--------------------------------------------|------|---------|
| HEATER VOLTAGE <sup>A</sup>                | 12.6 | VOLTS   |
| MAXIMUM HEATER-CATHODE VOLTAGE             |      |         |
| HEATER POSITIVE WITH RESPECT TO CATHODE    | 30   | VOLTS   |
| HEATER NEGATIVE WITH RESPECT TO CATHODE    | 30   | VOLTS   |
| MAXIMUM PLATE VOLTAGE                      | 30   | VOLTS   |
| MAXIMUM GRID #2 VOLTAGE                    | 30   | VOLTS   |
| MAXIMUM GRID #1 RESISTANCE                 | 10   | MEGOHMS |
| MAXIMUM AVERAGE DIODE CURRENT (EACH DIODE) | 5.0  | MA.     |

<sup>A</sup> THIS TUBE IS INTENDED TO BE USED IN AUTOMOTIVE SERVICE FROM A NOMINAL 12 VOLT BATTERY SOURCE. THE HEATER IS THEREFORE DESIGNED TO OPERATE OVER THE 10.0 TO 15.9 VOLTAGE RANGE ENCOUNTERED IN THIS SERVICE. THE MAXIMUM RATINGS OF THE TUBE PROVIDE FOR AN ADEQUATE SAFETY FACTOR SUCH THAT THE TUBE WILL WITHSTAND THE WIDE VARIATION IN SUPPLY VOLTAGES.

→ INDICATES A CHANGE.

CONTINUED ON FOLLOWING PAGE

## TUNG-SOL

CONTINUED FROM PRECEDING PAGE

## TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

|                                        |       |         |
|----------------------------------------|-------|---------|
| HEATER VOLTAGE                         | 12.6  | VOLTS   |
| HEATER CURRENT                         | 0.325 | ← AMP.  |
| GRID #1 VOLTAGE                        | 0     | VOLTS   |
| GRID #2 VOLTAGE                        | 12.6  | VOLTS   |
| GRID #1 RESISTOR                       | 2.2   | MEGOHMS |
| GRID #1 RESISTOR BYPASS CONDENSER      | 1.0   | μf      |
| TRANSCONDUCTANCE                       | 5 500 | ← μMHOS |
| PLATE RESISTANCE (APPROX.)             | 6 000 | ← OHMS  |
| ZERO SIGNAL PLATE CURRENT              | 12    | ← MA.   |
| ZERO SIGNAL GRID #2 CURRENT            | 1.5   | ← MA.   |
| AF GRID #1 VOLTAGE (RMS)               | 1.6   | VOLTS   |
| LOAD RESISTANCE                        | 2 700 | ← OHMS  |
| MAXIMUM SIGNAL POWER OUTPUT            | 20    | MW.     |
| TOTAL HARMONIC DISTORTION              | 5     | PERCENT |
| AVERAGE #1 DIODE CURRENT AT 5 VOLTS DC | 8.5   | MA.     |
| AVERAGE #2 DIODE CURRENT AT 5 VOLTS DC | 12.0  | MA.     |