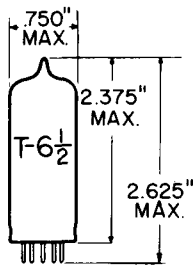


## TUNG-SOL

## TRIODE-TETRODE

MINIATURE TYPE



GLASS BULB

MINIATURE BUTTON

9 PIN BASE E9-1

OUTLINE DRAWING

JEDEC 6-3

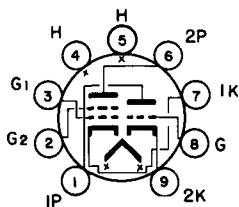
COATED UNIPOTENTIAL CATHODE

HEATER

12.6 VOLTS 0.55 AMP.

AC OR DC

ANY MOUNTING POSITION



BOTTOM VIEW

BASING DIAGRAM

JEDEC 96S

THE 12AL8 IS A COMBINED MEDIUM-MU TRIODE AND SPACE-CHARGE GRID TETRODE WITH INDEPENDENT UNIPOTENTIAL CATHODES IN THE 9-PIN MINIATURE CONSTRUCTION. THE TRIODE SECTION IS INTENDED FOR USE AS DETECTOR OR VOLTAGE AMPLIFIER AND THE TETRODE SECTION IS INTENDED FOR USE AS A POWER AMPLIFIER WHERE THE HEATER, PLATE AND SPACE-CHARGE GRID POTENTIALS ARE OBTAINED DIRECTLY FROM AN AUTOMOTIVE BATTERY.

## DIRECT INTERELECTRODE CAPACITANCES

WITHOUT EXTERNAL SHIELD

|                                                           |      |    |
|-----------------------------------------------------------|------|----|
| TRIODE INPUT: (G TO K + H)                                | 1.8  | pf |
| TRIODE OUTPUT: (P TO K + H)                               | 0.4  | pf |
| TRIODE GRID TO PLATE                                      | 5.7  | pf |
| TETRODE INPUT: (G <sub>2</sub> TO G <sub>1</sub> + K + H) | → 12 | pf |
| TETRODE OUTPUT: (P TO G <sub>1</sub> + K + H)             | 1.6  | pf |
| TETRODE GRID TO PLATE                                     | → 12 | pf |
| COUPLING: (TETRODE GRID #2 TO TRIODE GRID #1) (MAX.)      | 0.1  | pf |

## RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

|                                            |      |          |
|--------------------------------------------|------|----------|
| HEATER VOLTAGE                             | 12.6 | VOLTS    |
| MAXIMUM TETRODE PLATE VOLTAGE              | 30   | VOLTS    |
| MAXIMUM POSITIVE TETRODE GRID #1 VOLTAGE   | 16   | VOLTS    |
| MAXIMUM NEGATIVE TETRODE GRID #2 VOLTAGE   | 20   | VOLTS    |
| MAXIMUM TETRODE GRID #2 CIRCUIT RESISTANCE | 10   | MEG OHMS |
| MAXIMUM TRIODE PLATE VOLTAGE               | 30   | VOLTS    |
| MAXIMUM TRIODE CATHODE CURRENT             | 20   | MA.      |
| MAXIMUM TRIODE GRID CIRCUIT RESISTANCE     | 10   | MEG OHMS |
| MAXIMUM HEATER-CATHODE VOLTAGE             | ±30  | VOLTS    |

\* 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



