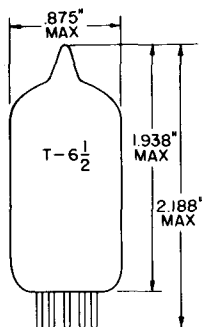


## TUNG-SOL

## TRIODE PENTODE

MINIATURE TYPE



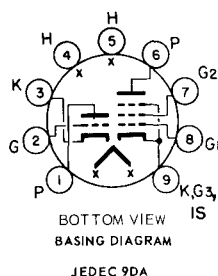
GLASS BULB  
MINIATURE BUTTON  
9 PIN BASE E9-1  
OUTLINE DRAWING  
JEDEC 6-2

COATED UNIPOTENTIAL CATHODE

FOR GENERAL PURPOSE

APPLICATIONS IN TV RECEIVERS

ANY MOUNTING POSITION



THE 6AN8 IS A MEDIUM MU TRIODE AND A SHARP CUTOFF PENTODE IN THE 9 PIN MINIATURE CONSTRUCTION. THE PENTODE SECTION MAY BE USED AS AN IF AMPLIFIER OR A REACTANCE TUBE WHILE THE TRIODE SECTION IS WELL SUITED FOR USE IN LOW-FREQUENCY OSCILLATOR, SYNC CLIPPER, SYNC SEPARATOR AND PHASE SPLITTER CIRCUITS.

## DIRECT INTERELECTRODE CAPACITANCES

## TRIODE UNIT:

|                           |        |    |
|---------------------------|--------|----|
| GRID TO PLATE: (TG TO TP) | 1.5    | pf |
| INPUT: TG TO (H+TK)       | 2.0    | pf |
| OUTPUT: TP TO (H+TK)      | → 0.26 | pf |

## PENTODE UNIT:

|                                   |       |    |
|-----------------------------------|-------|----|
| GRID 1 TO PLATE: (PG1 TO PP) MAX. | 0.04  | pf |
| INPUT: PG1 TO (H+PK+PG2+PG3+I.S.) | 7.0   | pf |
| OUTPUT: PP TO (H+PK+PG2+PG3+I.S.) | → 2.4 | pf |

## COUPLING:

|                                                  |        |    |
|--------------------------------------------------|--------|----|
| TRIODE GRID TO PENTODE PLATE: (TG TO PP) MAX.    | → 0.02 | pf |
| PENTODE GRID 1 TO TRIODE PLATE: (PG1 TO TP) MAX. | → 0.02 | pf |
| PENTODE PLATE TO TRIODE PLATE: (PP TO TP) MAX.   | → 0.15 | pf |

## HEATER CHARACTERISTICS AND RATINGS

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

|                                         |           |         |       |
|-----------------------------------------|-----------|---------|-------|
| AVERAGE CHARACTERISTICS                 | 6.3 VOLTS | 450     | MA.   |
| HEATER SUPPLY LIMITS:                   |           |         |       |
| VOLTAGE OPERATION                       |           | 6.3±0.6 | VOLTS |
| MAXIMUM HEATER-CATHODE VOLTAGE:         |           |         |       |
| HEATER NEGATIVE WITH RESPECT TO CATHODE |           |         |       |
| TOTAL DC AND PEAK                       |           | 200     | VOLTS |
| HEATER POSITIVE WITH RESPECT TO CATHODE |           |         |       |
| DC                                      |           | 100     | VOLTS |
| TOTAL DC AND PEAK                       |           | 200     | VOLTS |

CONTINUED ON FOLLOWING PAGE

## TUNG-SOL

## → MAXIMUM RATINGS

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

|                                         | TRIODE | PENTODE          |        |
|-----------------------------------------|--------|------------------|--------|
| PLATE VOLTAGE                           | 330    | 330              | VOLTS  |
| GRID 2 VOLTAGE                          | ----   | SEE RATING CHART |        |
| GRID 2 SUPPLY VOLTAGE                   | ----   | 330              | VOLTS  |
| PLATE DISSIPATION                       | 2.8    | 2.3              | WATTS  |
| GRID 2 DISSIPATION                      | ----   | 0.55             | WATTS  |
| POSITIVE DC GRID 1 VOLTAGE              | 0      | 0                | VOLTS  |
| GRID 1 CIRCUIT RESISTANCE: <sup>B</sup> |        |                  |        |
| FOR CATHODE-BIAS OPERATION              | 1.0    | 1.0              | MEGOHM |
| FOR FIXED-BIAS OPERATION                | 0.5    | 0.25             | MEGOHM |

## → TYPICAL OPERATING CHARACTERISTICS

CLASS A<sub>1</sub> AMPLIFIER

|                                               | TRIODE | PENTODE |       |
|-----------------------------------------------|--------|---------|-------|
| PLATE SUPPLY VOLTAGE                          | 150    | 125     | VOLTS |
| GRID 2 SUPPLY VOLTAGE                         | ----   | 125     | VOLTS |
| GRID 1 VOLTAGE                                | -3     | 0       | VOLTS |
| CATHODE BIAS RESISTOR                         | 0      | 56      | OHMS  |
| AMPLIFICATION FACTOR                          | 21     | —       |       |
| TRANSCONDUCTANCE                              | 4500   | 7800    | μMHOS |
| PLATE CURRENT                                 | 15     | 12      | MA.   |
| PLATE RESISTANCE (APPROX)                     | 4700   | 170,000 | OHMS  |
| GRID 2 CURRENT                                | ----   | 3.8     | MA.   |
| GRID 1 VOLTAGE (APPROX.) FOR $I_b = 20 \mu A$ | -17    | ----    | VOLTS |
| PLATE CURRENT AT $E_c1 = -3 V., R_k = 0$      | ----   | 1.6     | MA.   |
| GRID 1 VOLTAGE (APPROX.) FOR $I_b = 20 \mu A$ | ----   | -6      | VOLTS |

<sup>B</sup>

IF EITHER UNIT IS OPERATING AT MAXIMUM RATED CONDITIONS, GRID #1 CIRCUIT RESISTANCES FOR BOTH UNITS SHOULD NOT EXCEED THE STATED VALUES.

THE 6AN8A CURVES ALSO APPLY FOR THE 6AN8.

→ INDICATES A CHANGE.