TUNG-SOL
TRIODE PENTODE
MINIATURE TYPE

COATED UNIPOTENTIAL CATHODE
FOR GENERAL PURPOSE
APPLICATIONS IN TV RECEIVERS
ANY MOUNTING POSITION

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

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 ELECTRIC INC., ELECTRON TUBE DIVISION, BLOOMFIELD, NEW JERSEY, U.S.A., NOVEMBER 1, 1942 PLATE HEADS
### Maximum Ratings

**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: B
  - For Cathode-Bias Operation | 1.0 | 1.0 | Megohms
  - For Fixed-Bias Operation | 0.5 | 0.25 | Megohms

### Typical Operating Characteristics

**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 Ib = 20μA | -17 | ---- | Volts
Plate Current at Ee1=5 V, Rk=0 | ---- | 1.6 | MA.
Grid 1 Voltage (Approx.) for Ib = 20μA | ---- | -6 | Volts

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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.

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*Indicates a change.*