

## TUNG-SOL

## TWIN TRIODE

MINIATURE TYPE

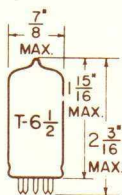
COATED UNIPOTENTIAL CATHODE

HEATER

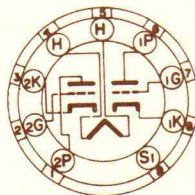
6.3 VOLTS 0.4 AMP.

AC OR DC

ANY MOUNTING POSITION



GLASS BULB



BOTTOM VIEW

SMALL-BUTTON NOVAL  
9 PIN BASE

9AJ

THE 6BS8 IS A 9-PIN MINIATURE TWIN TRIODE DESIGNED FOR USE AS A LOW-NOISE VHF AMPLIFIER IN CASCODE OPERATION. THIS TYPE HAS HIGH GAIN AND HIGH CASCODE TRANSCONDUCTANCE. IT IS DESIGNED FOR OPERATION WITH SECTION 2 (PINS 1, 2, AND 3) AS INPUT SECTION OF THE CASCODE CIRCUIT.

## DIRECT INTERELECTRODE CAPACITANCES

WITH EXTERNAL SHIELD #315

|                                                    | UNIT 1 | UNIT 2 |                |
|----------------------------------------------------|--------|--------|----------------|
| GRID TO PLATE                                      | 1.15   | 1.15   | $\mu\text{uf}$ |
| PLATE TO CATHODE (MAX.)                            | 0.15   | 0.15   | $\mu\text{uf}$ |
| HEATER TO CATHODE                                  | 2.60   | 2.6    | $\mu\text{uf}$ |
| INPUT                                              | 2.60   |        | $\mu\text{uf}$ |
| OUTPUT                                             | 1.2    |        | $\mu\text{uf}$ |
| PLATE OF UNIT 1 TO PLATE OF UNIT 2 (MAX.)          |        | 0.010  | $\mu\text{uf}$ |
| PLATE OF UNIT 2 TO PLATE AND GRID OF UNIT 1 (MAX.) |        | 0.024  | $\mu\text{uf}$ |
| GROUNDED GRID OPERATION:                           |        |        |                |
| INPUT                                              |        | 5.0    | $\mu\text{uf}$ |
| OUTPUT                                             |        | 2.2    | $\mu\text{uf}$ |

## RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

CLASS A<sub>1</sub> AMPLIFIER—EACH UNIT

|                                         |     |        |
|-----------------------------------------|-----|--------|
| HEATER VOLTAGE                          | 6.3 | VOLTS  |
| MAXIMUM DC PLATE VOLTAGE                | 150 | VOLTS  |
| MAXIMUM DC CATHODE CURRENT              | 20  | MA.    |
| MAXIMUM PLATE DISSIPATION               | 2.0 | WATTS  |
| MAXIMUM PEAK HEATER—CATHODE VOLTAGE:    |     |        |
| HEATER POSITIVE WITH RESPECT TO CATHODE | 200 | VOLTS  |
| HEATER NEGATIVE WITH RESPECT TO CATHODE | 200 | VOLTS  |
| MAXIMUM CIRCUIT VALUE: (EACH UNIT)      |     |        |
| GRID CIRCUIT RESISTANCE                 | 0.5 | MEGOHM |

## TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

|                                                   |                  |                  |
|---------------------------------------------------|------------------|------------------|
| HEATER VOLTAGE                                    | 6.3              | VOLTS            |
| HEATER CURRENT                                    | 0.4              | AMPERE           |
| PLATE VOLTAGE                                     | 150              | VOLTS            |
| CATHODE BIAS RESISTOR                             | 220              | OHMS             |
| AMPLIFICATION FACTOR                              | 36               |                  |
| PLATE RESISTANCE                                  | 5000             | OHMS             |
| PLATE CURRENT                                     | 10               | MA.              |
| GRID VOLTAGE (APPROX.) FOR $I_b = 10 \mu\text{A}$ | -7 (SEC. 2 ONLY) | VOLTS            |
| TRANSCONDUCTANCE                                  | 7200             | $\mu\text{MHOS}$ |

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TUNG-SOL

CONTINUED FROM PRECEDING PAGE

TYPICAL CASCODE CONDITIONS AND CHARACTERISTICS

|                                                      |        |                  |
|------------------------------------------------------|--------|------------------|
| HEATER VOLTAGE                                       | 6.3    | VOLTS            |
| HEATER CURRENT                                       | 0.4    | AMPERE           |
| PLATE SUPPLY VOLTAGE                                 | 250    | VOLTS            |
| GRID VOLTAGE                                         | -1     | VOLTS            |
| PLATE CURRENT                                        | 16     | MA.              |
| GRID VOLTAGE (APPROX.) FOR $G_m = 50 \mu\text{MHOS}$ | -6     | VOLTS            |
| TRANSCONDUCTANCE                                     | 10 000 | $\mu\text{MHOS}$ |

→ INDICATES A CHANGE.