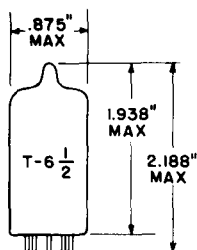


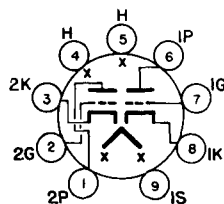
**TUNG-SOL****DUO TRIODE**  
MINIATURE TYPE

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

COATED UNIPOTENTIAL CATHODE

FRAME GRID RF AMPLIFIER  
AND OSCILLATOR MIXER

ANY MOUNTING POSITION



BOTTOM VIEW

BASING DIAGRAM  
JEDEC 9AJ

THE 6JK8 IS A DISSIMILAR DUO TRIODE IN THE 9 PIN MINIATURE CONSTRUCTION.  
IT IS DESIGNED SPECIFICALLY FOR FM TUNERS.

**DIRECT INTERELECTRODE CAPACITANCES**

WITH SHIELD

|                              | SECTION #1 | SECTION #2 |    |
|------------------------------|------------|------------|----|
| GRID TO PLATE                | 1.4        | .60        | pf |
| INPUT: G TO (H+K+I.S.+E.S.)  | 3.0        | 5.0        | pf |
| OUTPUT: P TO (H+K+I.S.+E.S.) | 1.0        | 4.0        | pf |
| HEATER TO CATHODE            | 2.8        | 2.8        | pf |
| GRID TO GRID (MAX.)          |            | .003       | pf |
| PLATE TO PLATE (MAX.)        |            | .009       | pf |

**HEATER CHARACTERISTICS AND RATINGS**

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

|                                                              |           |         |       |
|--------------------------------------------------------------|-----------|---------|-------|
| AVERAGE CHARACTERISTICS                                      | 6.3 VOLTS | 400     | MA.   |
| HEATER SUPPLY LIMITS:                                        |           |         |       |
| VOLTAGE OPERATION <sup>B</sup>                               |           | 6.3±0.6 | VOLTS |
| MAXIMUM HEATER CATHODE VOLTAGE:                              |           |         |       |
| HEATER NEGATIVE WITH RESPECT TO CATHODE<br>TOTAL DC AND PEAK |           | 100     | VOLTS |
| HEATER POSITIVE WITH RESPECT TO CATHODE<br>TOTAL DC AND PEAK |           | 100     | VOLTS |

CONTINUED ON FOLLOWING PAGE

## TUNG-SOL

CONTINUED FROM PRECEDING PAGE

## MAXIMUM RATINGS

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

|                                     | OSCILLATOR<br>SECTION #1 | R-F AMP.<br>SECTION #2 |         |
|-------------------------------------|--------------------------|------------------------|---------|
| PLATE VOLTAGE                       | 165                      | 200                    | VOLTS   |
| PLATE DISSIPATION                   | 1.0                      | 2.0                    | WATTS   |
| DC CATHODE CURRENT                  | 22                       | 22                     | MA.     |
| NEGATIVE GRID VOLTAGE               | 50                       | 50                     | VOLTS   |
| GRID CIRCUIT RESISTANCE (SELF BIAS) | 1.0                      | 1.0                    | MEGOHMS |

## TYPICAL OPERATING CHARACTERISTICS

CLASS A<sub>1</sub> AMPLIFIER

|                                                          | OSCILLATOR<br>SECTION #1 | R-F AMP.<br>SECTION #2 |       |
|----------------------------------------------------------|--------------------------|------------------------|-------|
| PLATE VOLTAGE                                            | 100                      | 135                    | VOLTS |
| GRID VOLTAGE                                             | -1.0                     | -1.2                   | VOLTS |
| PLATE CURRENT                                            | 5.3                      | 10                     | MA.   |
| TRANSCONDUCTANCE                                         | 6800                     | 13 000                 | μMHOS |
| AMPLIFICATION FACTOR                                     | 55                       | 70                     |       |
| PLATE RESISTANCE (APPROX.)                               | 8000                     | 5400                   | OHMS  |
| E <sub>c</sub> FOR I <sub>b</sub> = 20 μA. (APPROX.)     | -4.4                     | ---                    | VOLTS |
| E <sub>c</sub> FOR G <sub>m</sub> = 150 μMHOS (APPROX.)  | ---                      | -5.5                   | VOLTS |
| E <sub>c</sub> FOR G <sub>m</sub> = 1500 μMHOS (APPROX.) | ---                      | -2.8                   | VOLTS |

B<sub>1</sub> HEATER VOLTAGE SUPPLY VARIATIONS SHALL BE RESTRICTED TO MAINTAIN HEATER VOLTAGE WITHIN THE SPECIFIED VALUES.