

## TUNG-SOL

## PENTAGRID

## PHYSICAL SPECIFICATIONS

| EMITTER                | UNIPOTENTIAL CATHODE | PIN CONNECTIONS |               |         |         |
|------------------------|----------------------|-----------------|---------------|---------|---------|
| BASE                   | LOCKING-IN - 8 PIN   | PIN 1           | HEATER        | PIN 7   | CATHODE |
| CAP                    | NONE                 | PIN 2           | PLATE         | PIN 8   | HEATER  |
| BULB                   | T-9                  | PIN 3           | GRIDS #2 & #4 |         |         |
| MAXIMUM DIAMETER       | 1 3/16"              | PIN 4           | GRID #1       |         |         |
| MAXIMUM OVERALL LENGTH | 2 25/32"             | PIN 5           | GRID #5       | TOP CAP | NONE    |
| MAXIMUM SEATED HEIGHT  | 2 1/4"               | PIN 6           | GRID #3       |         |         |

## RATINGS

|                                                      |      |       |
|------------------------------------------------------|------|-------|
| HEATER OR FILAMENT VOLTAGE - NOMINAL (AC OR DC)      | 7.0  | VOLTS |
| HEATER OR FILAMENT CURRENT - NOMINAL                 | 0.32 | AMP.  |
| MAXIMUM PLATE VOLTAGE                                | 300  | VOLTS |
| MAXIMUM SCREEN VOLTAGE (GRIDS #2 & #4)               | 100  | VOLTS |
| MAXIMUM SCREEN SUPPLY VOLTAGE                        | 300  | VOLTS |
| MAXIMUM PLATE DISSIPATION                            |      | WATTS |
| MAXIMUM SCREEN DISSIPATION                           | 1.0  | WATT  |
| MAXIMUM TOTAL PLATE AND SCREEN DISSIPATION           | 2.0  | WATTS |
| MAXIMUM TOTAL CATHODE CURRENT                        | 14   | MA.   |
| MINIMUM EXTERNAL SIGNAL GRID BIAS VOLTAGE* (GRID #3) | 0    | VOLTS |
| MAXIMUM ANODE-GRID VOLTAGE                           |      | VOLTS |
| MAXIMUM ANODE-GRID SUPPLY VOLTAGE                    |      | VOLTS |
| MAXIMUM ANODE-GRID DISSIPATION                       |      | WATT  |

\* WITH SELF-EXCITED OSCILLATOR

CAPACITANCES<sup>5</sup>

|                                                  |                      |          |
|--------------------------------------------------|----------------------|----------|
| SIGNAL GRID TO MIXER PLATE (GRID #3 TO PLATE)    | 0.20 <sup>MAX.</sup> | $\mu$ uf |
| SIGNAL GRID TO OSC. GRID (GRID #3 TO GRID #1)    | 0.20 <sup>MAX.</sup> | $\mu$ uf |
| SIGNAL INPUT (GRID #3 TO ALL OTHER ELECTRODES)   | 9.0                  | $\mu$ uf |
| OSC. GRID TO CATHODE (GRID #1 TO CATHODE)        | 2.2                  | $\mu$ uf |
| OSC. GRID TO PLATE (GRID #1 TO PLATE)            | 0.15 <sup>MAX.</sup> | $\mu$ uf |
| OSC. INPUT (GRID #1 TO ALL OTHER ELECTRODES)     | 7.0                  | $\mu$ uf |
| OSC. GRID TO ALL OTHER ELECTRODES EXCEPT CATHODE | 5.0                  | $\mu$ uf |
| MIXER OUTPUT (PLATE TO ALL OTHER ELECTRODES)     | 9.0                  | $\mu$ uf |
| CATHODE TO ALL OTHER ELECTRODES EXCEPT GRID #1   | 6.0                  | $\mu$ uf |

<sup>5</sup> WITH EXTERNAL SHIELD CONNECTED TO BASE SHELL

## TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

## CONVERTER SERVICE

|                                       |       |       |            |
|---------------------------------------|-------|-------|------------|
| HEATER OR FILAMENT VOLTAGE            | 6.3   | 6.3   | VOLTS      |
| HEATER OR FILAMENT CURRENT            | 0.3   | 0.3   | AMP.       |
| PLATE VOLTAGE                         | 100   | 250   | VOLTS      |
| SCREEN VOLTAGE                        | 100   | 100   | VOLTS      |
| CONTROL GRID VOLTAGE                  | -2    | -2    | VOLTS      |
| ANODE-GRID VOLTAGE                    |       |       | VOLTS      |
| PLATE CURRENT                         | 3.3   | 3.5   | MA.        |
| SCREEN CURRENT                        | 8.5   | 8.5   | MA.        |
| ANODE-GRID CURRENT                    |       |       | MA.        |
| OSCILLATOR-GRID CURRENT               | 0.5   | 0.5   | MA.        |
| TOTAL CATHODE CURRENT                 | 12.3  | 12.5  | MA.        |
| OSCILLATOR-GRID RESISTOR              | 20000 | 20000 | OHMS       |
| PLATE RESISTANCE (APPROX.)            | 0.5   | 1.0   | MEGOHM     |
| CONVERSION TRANSCONDUCTANCE           | 525   | 550   | $\mu$ MHOS |
| FOR CONTROL GRID VOLTAGE = -2 VOLTS   |       |       |            |
| CONVERSION TRANSCONDUCTANCE           | 275   | 300   | $\mu$ MHOS |
| FOR CONTROL GRID VOLTAGE = -6 VOLTS   |       |       |            |
| CONVERSION TRANSCONDUCTANCE (APPROX.) | 2     | 2     | $\mu$ MHOS |
| FOR CONTROL GRID VOLTAGE = -35 VOLTS  |       |       |            |
| SUPPRESSOR GRID (GRID #5)             | 0     | 0     | VOLTS      |