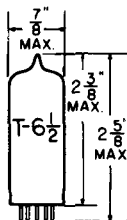


## TUNG-SOL

## BEAM PENTODE

MINIATURE TYPE



GLASS BULB

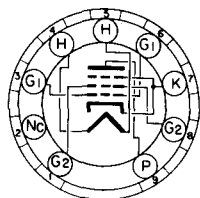
COATED UNIPOTENTIAL CATHODE

HEATER

12.6 VOLTS<sup>A</sup> 0.2 AMP.

AC OR DC

ANY MOUNTING POSITION



BOTTOM VIEW

MINIATURE BUTTON  
9 PIN BASE

9EU

THE 12AB5 IS A BEAM POWER TUBE USING THE 9 PIN MINIATURE CONSTRUCTION DESIGNED FOR USE AS AN AUDIO POWER AMPLIFIER IN AUTOMOBILE RADIO SERVICE WHERE THE POWER SOURCE IS A 12 VOLT BATTERY.

## DIRECT INTERELECTRODE CAPACITANCES — APPROX.

|                                                                |     |    |
|----------------------------------------------------------------|-----|----|
| GRID TO PLATE: G TO P                                          | 0.7 | μf |
| INPUT: G <sub>1</sub> TO (H+K+G <sub>2</sub> +G <sub>3</sub> ) | 8.0 | μf |
| OUTPUT: P TO (H+K+G <sub>2</sub> +G <sub>3</sub> )             | 8.5 | μf |

## RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

CLASS A<sub>1</sub> AMPLIFIER

|                                     |      |        |
|-------------------------------------|------|--------|
| HEATER VOLTAGE                      | 12.6 | VOLTS  |
| MAXIMUM HEATER-CATHODE VOLTAGE:     |      |        |
| NEGATIVE (DC)                       | 200  | VOLTS  |
| POSITIVE (DC)                       | 100  | VOLTS  |
| MAXIMUM PLATE VOLTAGE               | 315  | VOLTS  |
| MAXIMUM GRID #2 VOLTAGE             | 285  | VOLTS  |
| MAXIMUM PLATE DISSIPATION           | 12   | WATTS  |
| MAXIMUM GRID #2 DISSIPATION         | 2    | WATTS  |
| MAXIMUM GRID #1 CIRCUIT RESISTANCE: |      |        |
| FIXED BIAS                          | 0.1  | MEGOHM |
| CATHODE BIAS                        | 0.5  | MEGOHM |
| MAXIMUM BULB TEMPERATURE            | 250  | °C.    |

OPERATING CONDITIONS AND CHARACTERISTICS<sup>A</sup>CLASS A<sub>1</sub> AMPLIFIER — SINGLE TUBE

|                                |       |       |         |
|--------------------------------|-------|-------|---------|
| HEATER VOLTAGE <sup>A</sup>    | 12.6  | 12.6  | VOLTS   |
| HEATER CURRENT                 | 0.2   | 0.2   | AMP.    |
| PLATE VOLTAGE                  | 250   | 250   | VOLTS   |
| GRID #2 VOLTAGE                | 200   | 250   | VOLTS   |
| GRID #1 VOLTAGE                | ---   | -12.5 | VOLTS   |
| CATHODE BIAS RESISTOR          | 270   | ---   | OHMS    |
| PEAK AF GRID #1 VOLTAGE        | 10.5  | 12.5  | VOLTS   |
| ZERO-SIGNAL PLATE CURRENT      | 33.5  | 45    | MA.     |
| MAXIMUM SIGNAL PLATE CURRENT   | 36.0  | 47    | MA.     |
| ZERO-SIGNAL GRID #2 CURRENT    | 1.6   | 4.5   | MA.     |
| MAXIMUM SIGNAL GRID #2 CURRENT | 3.2   | 7.0   | MA.     |
| PLATE RESISTANCE               | ---   | 50    | KILOHMS |
| TRANSCONDUCTANCE               | 4 000 | 4 100 | μMHOS   |
| LOAD RESISTANCE                | 6 000 | 5 000 | OHMS    |
| POWER OUTPUT (MAXIMUM SIGNAL)  | 3.3   | 4.5   | WATTS   |
| TOTAL HARMONIC DISTORTION      | 12    | 8     | PERCENT |

<sup>A</sup> THIS TUBE IS INTENDED TO BE USED IN AUTOMOTIVE SERVICE FROM A NOMINAL 12 VOLT BATTERY SOURCE. THE HEATER IS THEREFORE DESIGNED TO OPERATE OVER THE 10.0 TO 15.9 VOLTAGE RANGE ENCOUNTERED IN THIS SERVICE. THE MAXIMUM RATINGS OF THE TUBE PROVIDE FOR AN ADEQUATE SAFETY FACTOR SUCH THAT THE TUBE WILL WITHSTAND THE WIDE VARIATION IN SUPPLY VOLTAGES.