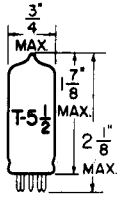
TUNG-SOL

HEPTODE

MINIATURE TYPE

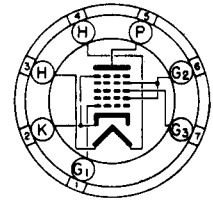


GLASS BULB

COATED UNIPOTENTIAL CATHODE

HEATER
12.6 VOLTS 0.15 AMP.
AC OR DC

ANY MOUNTING POSITION



BOTTOM VIEW
MINIATURE BUTTON
7 PIN BASE
7CH

THE 12EG6 IS A DUAL CONTROL HEPTODE WITH A UNIPOTENTIAL CATHODE IN THE 7-PIN MINIATURE CONSTRUCTION. IT IS INTENDED AS AN RF AMPLIFIER IN SUPERHETERODYNE RECEIVERS WHERE THE HEATER, PLATE AND SCREEN GRID POTENTIALS ARE OBTAINED DIRECTLY FROM AN AUTOMOTIVE BATTERY. THE DESIGN OF THIS TYPE PERMITS THE APPLICATION OF AVC CONTROL VOLTAGE TO TWO CONTROL GRIDS THEREBY REDUCING BACK BIASING OF THE AVC LINE WITH LARGE RF SIGNALS.

DIRECT INTERELECTRODE CAPACITANCES

	WITH[A] SHIELD	
MIXER GRID TO PLATE: (G_3 TO P) MAX.	0.25	μμf
MIXER GRID TO OSCILLATOR GRID: (G_3 TO G_1) MAX.	0.15	μμf
RF INPUT: G_3 TO (H+K+G_1+$G_{2\&4}$+G_5+P)	6.5	μμf
OSCILLATOR INPUT: G_1 TO (H+K+G_1+$G_{2\&4}$+G_3+G_5)	5.7	μμf
MIXER OUTPUT: P TO (H+K+G_1+$G_{2\&4}$+G_3+G_5)	12	μμf
OSCILLATOR GRID TO CATHODE: (G_1 TO K+G_5)	3.2	μμf
OSCILLATOR OUTPUT: K TO (H+$G_{2\&4}$+G_3+P)	23	μμf
OSCILLATOR GRID TO PLATE: (G_1 TO P) MAX.	0.04	μμf

RATINGS[B]

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

HEATER VOLTAGE	12.6	VOLTS
HEATER CURRENT	0.15	AMP.
MAXIMUM HEATER-CATHODE VOLTAGE	±30	VOLTS
MAXIMUM PLATE VOLTAGE	30	VOLTS
MAXIMUM GRIDS #2 & #4 VOLTAGE	30	VOLTS
MAXIMUM GRIDS #2 & #4 SUPPLY VOLTAGE	30	VOLTS
MAXIMUM NEGATIVE DC GRID #3 VOLTAGE	30	VOLTS
MAXIMUM POSITIVE DC GRID #3 VOLTAGE	0	VOLTS
MAXIMUM CATHODE CURRENT	20	MA.
MAXIMUM GRID #3 CIRCUIT RESISTANCE	10	MEGOHMS

[A] EXTERNAL SHIELD #316 CONNECTED TO PIN #2.

[B] 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.

CONTINUED ON FOLLOWING PAGE

TUNG-SOL

CONTINUED FROM PRECEDING PAGE

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

HEPTODE CONNECTED

HEATER VOLTAGE	12.6	VOLTS
HEATER CURRENT	0.15	AMP.
PLATE VOLTAGE	12.6	VOLTS
GRIDS #2 & #4 VOLTAGE	12.6	VOLTS
GRID #3 VOLTAGE	-0.8[C]	VOLTS
GRID #1 VOLTAGE	-0.8[D]	VOLTS
PLATE CURRENT	400	μAMPS
SCREEN CURRENT	2 400	μAMPS
TRANSCONDUCTANCE[E]	800	μMHOS
PLATE RESISTANCE (APPROX.)	0.15	MEGOHMS
GRID #3 VOLTAGE [C] AND GRID #1 VOLTAGE (APPROX.) FOR G_m[E] = 10 μMHOS	-3.0	VOLTS

[C] PROVIDED BY GRID #1 VOLTAGE THROUGH A SUITABLE GRID #3 RESISTOR.

[D] AVERAGE BIAS DEVELOPED ACROSS A 2.2 MEGOHM GRID RESISTOR.

[E] FROM GRID #3 TO PLATE.