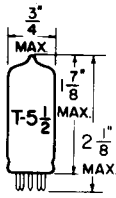
TUNG-SOL

PENTODE
MINIATURE TYPE

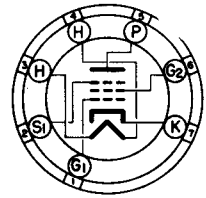


GLASS BULB

COATED UNIPOTENTIAL CATHODE

HEATER
12.6 VOLTS 0.190 AMP.
AC OR DC

ANY MOUNTING POSITION



BOTTOM VIEW
MINIATURE BUTTON
7 PIN BASE
78K

THE 12EK6 IS A SHARP CUTOFF PENTODE IN THE 7 PIN MINIATURE CONSTRUCTION. IT IS DESIGNED FOR USE AS A VHF, RF OR IF AMPLIFIER IN APPLICATIONS WHERE THE HEATER, PLATE AND GRID #2 POTENTIALS ARE SUPPLIED DIRECTLY FROM A 12 VOLT AUTOMOTIVE STORAGE BATTERY.

DIRECT INTERELECTRODE CAPACITANCES
WITHOUT EXTERNAL SHIELD

GRID TO PLATE (MAX.)	0.036 ←	μμf
INPUT: G_1 TO $(H+K+G_2+G_3)$	10	μμf
OUTPUT: P TO $(H+K+G_2+G_3)$	5.0 ←	μμf

RATINGS
INTERPRETED ACCORDING TO DESIGN MAXIMUM SYSTEM[A]

HEATER VOLTAGE[B]	12.6	VOLTS
MAXIMUM HEATER-CATHODE VOLTAGE:		
HEATER NEGATIVE WITH RESPECT TO CATHODE	16	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE	16	VOLTS
MAXIMUM PLATE VOLTAGE	16	VOLTS
MAXIMUM GRID #2 VOLTAGE	16	VOLTS
MAXIMUM POSITIVE DC GRID #1 VOLTAGE	0	VOLTS
MAXIMUM GRID #1 CIRCUIT RESISTANCE	10	MEGOHMS

[A] DESIGN-MAXIMUM RATINGS ARE LIMITING VALUES OF OPERATING AND ENVIRONMENTAL CONDITIONS APPLICABLE TO A BOGEY ELECTRON DEVICE OF A SPECIFIED TYPE AS DEFINED BY ITS PUBLISHED DATA, AND SHOULD NOT BE EXCEEDED UNDER THE WORST PROBABLE CONDITIONS. THE DEVICE MANUFACTURER CHOOSES THESE VALUES TO PROVIDE ACCEPTABLE SERVICEABILITY OF THE DEVICE, TAKING RESPONSIBILITY FOR THE EFFECTS OF CHANGES IN OPERATING CONDITIONS DUE TO VARIATIONS IN DEVICE CHARACTERISTICS. THE EQUIPMENT MANUFACTURER SHOULD DESIGN SO THAT INITIALLY AND THROUGHOUT LIFE NO DESIGN-MAXIMUM VALUE FOR THE INTENDED SERVICE IS EXCEEDED WITH A BOGEY DEVICE UNDER THE WORST PROBABLE OPERATING CONDITIONS WITH RESPECT TO SUPPLY-VOLTAGE VARIATION, EQUIPMENT COMPONENT VARIATION, EQUIPMENT CONTROL ADJUSTMENT, LOAD VARIATION, SIGNAL VARIATION, AND ENVIRONMENTAL CONDITIONS.

[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.

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TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

HEATER VOLTAGE	12.6	VOLTS
HEATER CURRENT	0.2	AMP.
PLATE VOLTAGE	12.6	VOLTS
GRID #2 VOLTAGE	12.6	VOLTS
GRID #1 VOLTAGE [C]		
GRID #1 RESISTOR	2.2	MEGOHMS
PLATE CURRENT	4.0 ←	MA.
GRID #2 CURRENT	1.7 ←	MA.
TRANSCONDUCTANCE	4 200	μMHOS
PLATE RESISTANCE (APPROX.)	50 000 ←	OHMS
GRID #1 VOLTAGE FOR I_b= 10 μA	− 3.8 ←	VOLTS

[C] AVERAGE CONTACT POTENTIAL BIAS DEVELOPED ACROSS SPECIFIED GRID RESISTOR.

→ INDICATES A CHANGE.