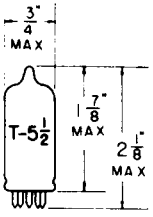
TUNG-SOL

TWIN DIODE-TRIODE

MINIATURE TYPE



GLASS BULB

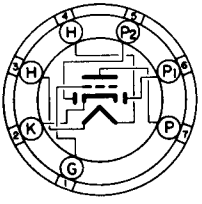
COATED UNIPOTENTIAL CATHODE

HEATER

12.6 VOLTS 0.15 AMP.

AC OR DC

ANY MOUNTING POSITION



BOTTOM VIEW

SMALL-BUTTON MINIATURE
7 PIN BASE
7BT

THE 12FK6 IS A TWIN DIODE, LOW-MU TRIODE IN THE 7 PIN MINIATURE CONSTRUCTION. THE DIODE SECTION PERFORMS THE FUNCTIONS OF DETECTION AND AVC WHILE THE TRIODE SECTION IS INTENDED FOR USE AS THE FIRST AF AMPLIFIER. THE TUBE IS DESIGNED FOR USE WHERE THE PLATE AND GRID POTENTIALS ARE OBTAINED DIRECTLY FROM AN AUTOMOTIVE STORAGE BATTERY.

DIRECT INTERELECTRODE CAPACITANCES - APPROX.

WITHOUT EXTERNAL SHIELD

TRIODE GRID TO TRIODE PLATE	1.6	μμf
TRIODE GRID TO CATHODE AND HEATER	1.8	μμf
TRIODE PLATE TO CATHODE AND HEATER	0.7	μμf
PLATE OF DIODE UNIT #1 TO PLATE OF DIODE UNIT #2	0.9	μμf

RATINGS

INTERPRETED ACCORDING TO DESIGN-CENTER SYSTEM

	DIODE UNIT	TRIODE UNIT	
HEATER VOLTAGE[A]		12.6	VOLTS
MAXIMUM PLATE VOLTAGE		16	VOLTS
MAXIMUM GRID VOLTAGE:			
POSITIVE VALUE		0	VOLTS
NEGATIVE VALUE		16	VOLTS
MAXIMUM PEAK HEATER-CATHODE VOLTAGE:			
HEATER NEGATIVE WITH RESPECT TO CATHODE		16	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE		16	VOLTS
MAXIMUM PLATE CURRENT (EACH UNIT)	1		MA.
MAXIMUM CIRCUIT VALUES:			
GRID-CIRCUIT RESISTANCE		10	MEGOHMS

A
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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CONTINUED FROM PRECEDING PAGE

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

	DIODE UNIT	TRIODE UNIT	
HEATER VOLTAGE	12.6	12.6	VOLTS
HEATER CURRENT	0.15	0.15	AMP.
PLATE VOLTAGE	10[B]	12.6	VOLTS
GRID-SUPPLY VOLTAGE		0	VOLTS
GRID RESISTOR (BYPASSED)		2.2	MEGOHMS
AMPLIFICATION FACTOR		7.4	
PLATE RESISTANCE (APPROX.)		6 200	OHMS
TRANSCONDUCTANCE		1 200	μMHOS
PLATE CURRENT	2[B]	1.3	MA.
PLATE CURRENT (APPROX.) FOR GRID BIAS OF -3 VOLTS		0.08	MA.

[B] EACH UNIT.

OPERATION OF HEATERS IN SERIES WITH OTHER HEATERS IS NOT RECOMMENDED.

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.