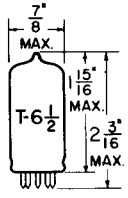
TUNG-SOL

TRIODE TETRODE

MINIATURE TYPE



GLASS BULB

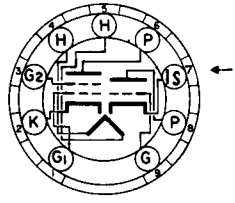
COATED UNIPOTENTIAL CATHODE

HEATER

12.6 VOLTS 0.35 AMP.

AC OR DC

ANY MOUNTING POSITION



BOTTOM VIEW

MINIATURE BUTTON
9 PIN BASE
9JD

THE 12DY8 IS A SHARP CUTOFF TRIODE TETRODE IN THE 9-PIN MINIATURE CONSTRUCTION. THE TETRODE SECTION IS DESIGNED FOR RELAY SERVICE IN "SIGNAL-SEEKER" APPLICATIONS WHILE THE TRIODE SECTION IS DESIGNED FOR GENERAL PURPOSE USE. THE 12DY8 IS DESIGNED FOR OPERATION WHERE THE PLATE AND SCREEN VOLTAGES ARE OBTAINED DIRECTLY FROM A 12 VOLT AUTOMOTIVE STORAGE BATTERY.

DIRECT INTERELECTRODE CAPACITANCES

WITHOUT EXTERNAL SHIELD

	TRIODE	TETRODE	
GRID TO PLATE:	1.5	0.74	μμf
INPUT;	2.0	11	μμf
OUTPUT:	2.0 ←	3.0	μμf

RATINGS

INTERPRETED ACCORDING TO DESIGN MAXIMUM SYSTEM[A]

	TRIODE	TETRODE	
HEATER VOLTAGE[B]	12.6	12.6	VOLTS
MAXIMUM PLATE VOLTAGE	16	16	VOLTS
MAXIMUM GRID #2 VOLTAGE	---	16	VOLTS
MAXIMUM GRID #1 RESISTANCE	10	10	MEGOHMS
MAXIMUM HEATER-CATHODE VOLTAGE	16		VOLTS

[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.

→ INDICATES A CHANGE.

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TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

	TRIODE	TETRODE	
HEATER VOLTAGE	12.6	12.6	VOLTS
HEATER CURRENT	0.35	0.35	AMP.
PLATE VOLTAGE	12.6	12.6	VOLTS
GRID #1 VOLTAGE	0	(NOTE C)	VOLTS
GRID #2 VOLTAGE	---	12.6	VOLTS
GRID #1 RESISTOR	---	2.2	MEGOHMS
TRANSCONDUCTANCE	2000	6000	μMHOS
AMPLIFICATION FACTOR	20	---	
PLATE RESISTANCE (APPROX.)	10000	5000	OHMS
PLATE CURRENT	1.2	14	MA.
SCREEN CURRENT	---	2	MA.
GRID VOLTAGE FOR I_b = 10 μADC	-2.0	----	VOLTS
GRID VOLTAGE FOR I_b = 20 μADC	---	-9.0	VOLTS

TYPICAL OPERATION
TETRODE SECTION – RELAY SERVICE

HEATER VOLTAGE	10.0	15.0	VOLTS
PLATE SUPPLY VOLTAGE	10.0	15.0	VOLTS
GRID #2 VOLTAGE	10.0	15.0	VOLTS
GRID #1 VOLTAGE	(NOTE C)	-6.0	VOLTS
GRID #1 RESISTOR	10	0	MEGOHMS
PLATE LOAD RESISTOR	700	700	OHMS
PLATE CURRENT	(MIN.) 5.0	(MAX.) 3.0	MA.

[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.

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