

**TUNG-SOL**

**TRIODE PENTODE**

MINIATURE TYPE

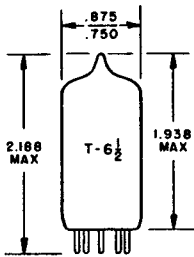
MEDIUM MU TRIODE AND  
SHARP CUT-OFF PENTODE

FOR

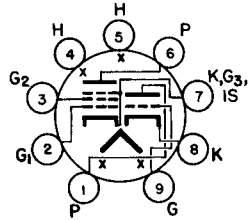
MOBILE COMMUNICATIONS EQUIPMENT

COATED UNIPOTENTIAL CATHODES

ANY MOUNTING POSITION



GLASS BULB  
MINIATURE BUTTON  
9 PIN BASE E9-1  
OUTLINE DRAWING  
JEDEC 6-2



BOTTOM VIEW  
BASING DIAGRAM  
JEDEC 9AE

THE 8445 CONTAINS A MEDIUM MU TRIODE AND A SHARP CUT-OFF HIGH-FREQUENCY PENTODE WITH SEPARATE CATHODES IN THE 9 PIN MINIATURE CONSTRUCTION. IT IS ADAPTED TO GIVE IMPROVED RELIABILITY IN MOBILE RADIO COMMUNICATION EQUIPMENT. ITS HEATER IS DESIGNED TO BE OPERATED FROM AN AUTOMOTIVE BATTERY. ELECTRICALLY THE SAME TYPE, BUT WITH DIFFERENT BASING ARRANGEMENT, IS THE 8446.

**DIRECT INTERELECTRODE CAPACITANCES**

WITHOUT SHIELD

**TRIODE SECTION:**

GRID TO PLATE: (TG TO TP)	1.5	pf
INPUT: TG TO (TK + H + PK + PG3 + I.S.)	2.5	pf
OUTPUT: TP TO (TK + H + PK + PG3 + I.S.)	1.8	pf

**PENTODE SECTION:**

GRID 1 TO PLATE: (PG1 TO PP)	MAX.	0.025	pf
INPUT: PG1 TO (H + PK + PG2 + PG3 + I.S.)		5.5	pf
OUTPUT: PP TO (H + PK + PG2 + PG3 + I.S.)		3.8	pf

**COUPLING:**

TRIODE GRID TO PENTODE PLATE	MAX.	0.02	pf
PENTODE GRID 1 TO TRIODE PLATE	MAX.	0.16	pf
PENTODE PLATE TO TRIODE PLATE	MAX.	0.07	pf

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**HEATER CHARACTERISTICS AND RATINGS**

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

AVERAGE CHARACTERISTICS	6.75	VOLTS	440	MA.
LIMITS OF APPLIED HEATER VOLTAGE			6.0 TO 7.5	VOLTS
HEATER CATHODE VOLTAGE:				
HEATER NEGATIVE WITH RESPECT TO CATHODE				
TOTAL DC AND PEAK			200	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE				
DC			100	VOLTS
TOTAL DC AND PEAK			200	VOLTS

**MAXIMUM RATINGS**

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

	TRIODE	PENTODE	
PLATE VOLTAGE	330	330	VOLTS
GRID 2 VOLTAGE		200	VOLTS
POSITIVE GRID 1 VOLTAGE	0	0	VOLTS
PLATE DISSIPATION	2.0	1.7	WATTS
GRID 2 DISSIPATION		0.5	WATTS
GRID 1 CIRCUIT RESISTANCE			
FIXED BIAS	0.5	0.5	MEGOHM
CATHODE BIAS	1.0	1.0	MEGOHM

**AVERAGE CHARACTERISTICS**

PLATE VOLTAGE	100	170	VOLTS
GRID 2 VOLTAGE	-----	170	VOLTS
GRID 1 VOLTAGE	-1.0	-2.0	VOLTS
PLATE CURRENT	12.5	10.0	MA.
GRID 2 CURRENT	-----	2.5	MA.
TRANSCONDUCTANCE	7,000	6,200	$\mu$ MHOS
AMPLIFICATION FACTOR	43		
PLATE RESISTANCE (APPROX.)	-----	0.4	MEGOHMS
GRID VOLTAGE (APPROX.) FOR $i_b = 50 \mu A$	-10	-----	VOLTS
GRID 1 VOLTAGE (APPROX.) FOR $i_b = 100 \mu A$ .	-----	-7	VOLTS