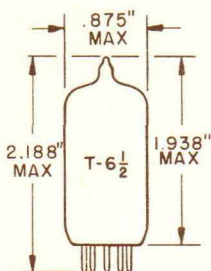


TUNG-SOL

TRIODE PENTODE
MINIATURE TYPE

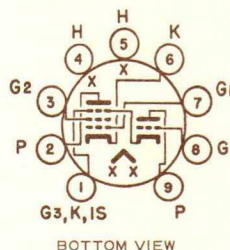
GLASS BULB

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

FOR
COLOR AND BLACK AND WHITE
T.V. APPLICATIONS

COATED UNIPOTENTIAL CATHODE

ANY MOUNTING POSITION



BOTTOM VIEW

BASING DIAGRAM
JEDEC 9GM

THE 6CU8 IS A GENERAL-PURPOSE MEDIUM-MU TRIODE AND SHARP-CUTOFF PENTODE IN THE 9 PIN MINIATURE CONSTRUCTION. IT IS INTENDED FOR A WIDE VARIETY OF APPLICATIONS IN BLACK-AND-WHITE AND COLOR TELEVISION RECEIVERS. THERMAL CHARACTERISTICS OF THE HEATER ARE CONTROLLED SUCH THAT HEATER VOLTAGE SURGES DURING THE WARM-UP CYCLE ARE MINIMIZED PROVIDED IT IS USED WITH OTHER TYPES WHICH ARE SIMILARLY CONTROLLED.

DIRECT INTERELECTRODE CAPACITANCES
WITHOUT EXTERNAL SHIELD

PENTODE GRID 1 TO PENTODE PLATE: (PG TO PP)	max.	0.025	pf
PENTODE INPUT: PG1 TO (H+PK+PG3+TK+I.S.+PG2)		7	pf
PENTODE OUTPUT: PP TO (H+PK+PG3+TK+I.S.+PG2)		2.4	pf
TRIODE GRID TO TRIODE PLATE: TG TO TP		1.6	pf
TRIODE INPUT: TG TO (TK+H+PG3+I.S.)		1.9	pf
TRIODE OUTPUT: TP TO (TK+H+PG3+I.S.)		1.6	pf
PENTODE GRID 1 TO TRIODE PLATE (PG1 TO TP)	max.	0.03	pf ←
PENTODE PLATE TO TRIODE PLATE (PP TO TP)	max.	0.07	pf ←

HEATER CHARACTERISTICS AND RATINGS

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239 ←

AVERAGE CHARACTERISTICS	6.3	VOLTS	450	MA.
HEATER WARM-UP TIME	A		11	SECONDS
LIMITS OF APPLIED VOLTAGE			6.3±0.6	VOLTS
LIMITS OF SUPPLIED CURRENT			450 ±30	MA.
MAXIMUM HEATER-CATHODE VOLTAGE:				
HEATER NEGATIVE WITH RESPECT TO CATHODE				
TO TAL DC AND PEAK			200	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE				
DC			100	VOLTS
TOTAL DC AND PEAK			200	VOLTS

CONTINUED ON FOLLOWING PAGE

TUNG-SOL

CONTINUED FROM PRECEDING PAGE

MAXIMUM RATINGS

→ DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

PENTODE PLATE VOLTAGE	→ 330	VOLTS
TRIODE PLATE VOLTAGE	→ 330	VOLTS
GRID 2 SUPPLY VOLTAGE	→ 330	VOLTS
GRID 2 VOLTAGE	See rating chart	
PENTODE PLATE DISSIPATION	→ 2.3	WATTS
TRIODE PLATE DISSIPATION	→ 2.8	WATTS
GRID 2 DISSIPATION	→ 0.55	WATT
POSITIVE DC PENTODE GRID 1 VOLTAGE	0	VOLTS
POSITIVE DC TRIODE GRID VOLTAGE	0	VOLTS

→ TYPICAL OPERATING CHARACTERISTICS

CLASS A1 AMPLIFIER

	TRIODE	PENTODE	
PLATE VOLTAGE	125	125	VOLTS
GRID 2 VOLTAGE	-----	125	VOLTS
GRID 1 VOLTAGE	-1.0	0	VOLTS
CATHODE BIAS RESISTOR	0	56	OHMS
PLATE CURRENT	17	12	MA.
GRID 2 CURRENT	-----	3.8	MA.
TRANSCONDUCTANCE	5,800	7,800	μMHOS
AMPLIFICATION FACTOR	24	-----	
PLATE RESISTANCE	APPROX. 4.1	170	KOHMS
PLATE CURRENT AT $E_{c1} = -3$; $R_k = 0$	-----	1.6	MA.
GRID 1 VOLTAGE, APPROX. FOR $I_b = 20 \mu A$	12	-6	MA.

→ INDICATES A CHANGE.

A
HEATER WARM-UP TIME IS DEFINED AS THE TIME REQUIRED FOR THE VOLTAGE ACROSS THE HEATER TO REACH 80% OF ITS RATED VOLTAGE AFTER APPLYING 4 TIMES RATED HEATER VOLTAGE TO A CIRCUIT CONSISTING OF THE TUBE HEATER IN SERIES WITH A RESISTANCE OF VALUE 3 TIMES THE NOMINAL HEATER HEATER OPERATING RESISTANCE.

