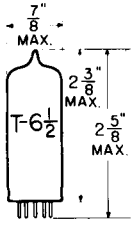
TUNG-SOL

BEAM PENTODE

MINIATURE TYPE

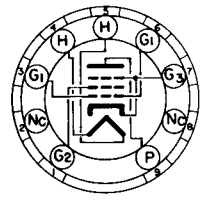


GLASS BULB

COATED UNIPOTENTIAL CATHODE

HEATER
6.3 VOLTS 0.45 AMP.
AC OR DC

ANY MOUNTING POSITION



BOTTOM VIEW
MINIATURE BUTTON
9 PIN BASE
9CK

THE 6CM6 IS A BEAM POWER AMPLIFIER USING THE 9 PIN MINIATURE CONSTRUCTION. IT IS DESIGNED FOR SERVICE AS A GENERAL PURPOSE AUDIO POWER AMPLIFIER OR VERTICAL DEFLECTION AMPLIFIER IN TELEVISION RECEIVER SWEEP CIRCUITS.

DIRECT INTERELECTRODE CAPACITANCES – APPROX.

GRID TO PLATE: G TO P	0.7	μμf
INPUT: G_1 TO (H+K+G_2&G_3)	8.0	μμf
OUTPUT: P TO (H+K+G_2&G_3)	8.5	μμf

RATINGS[A]

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

VERTICAL DEFLECTION AMPLIFIER[B]

	PENTODE CONNECTION	TRIODE CONNECTION	
HEATER VOLTAGE	6.3	6.3	VOLTS
MAXIMUM HEATER–CATHODE VOLTAGE:			
HEATER POSITIVE			
DC	100	100	VOLTS
TOTAL DC AND PEAK	200	200	VOLTS
HEATER NEGATIVE			
TOTAL DC AND PEAK	200	200	VOLTS
MAXIMUM PEAK POSITIVE PLATE VOLTAGE (ABSOLUTE MAX.)	2	2	KV.
MAXIMUM DC GRID #2 VOLTAGE	285	---	VOLTS
MAXIMUM PLATE DISSIPATION[C]	8	→9.0	WATTS
MAXIMUM GRID #2 DISSIPATION[C]	1.75	---	WATTS
MAXIMUM PEAK NEGATIVE GRID #1 VOLTAGE	250	250	VOLTS
MAXIMUM AVERAGE CATHODE CURRENT	40	40	MA.
MAXIMUM PEAK CATHODE CURRENT	120	120	MA.
MAXIMUM GRID #1 CIRCUIT RESISTANCE (CATHODE BIAS)	2.2	2.2	MEGOHMS

[A] THESE ARE DESIGN CENTER VALUES EXCEPT WHERE ABSOLUTE MAXIMUM IS INDICATED.

[B] FOR OPERATION IN A 525-LINE, 30-FRAME SYSTEM AS DESCRIBED IN "STANDARDS OF GOOD ENGINEERING PRACTICE CONCERNING TELEVISION BROADCASTING STATIONS: FEDERAL COMMUNICATIONS COMMISSION". THE DUTY CYCLE OF THE VOLTAGE PULSE IS NOT TO EXCEED 15% OF ONE SCANNING CYCLE.

[C] IN STAGES OPERATING WITH A GRID-LEAK BIAS, AN ADEQUATE CATHODE-BIAS RESISTOR OR OTHER SUITABLE MEANS IS REQUIRED TO PROTECT THE TUBE IN THE ABSENCE OF EXCITATION.

CLASS A_1 AMPLIFIER

MAXIMUM PLATE VOLTAGE	315	VOLTS
MAXIMUM GRID #2 VOLTAGE	285	VOLTS
MAXIMUM PLATE DISSIPATION	12	WATTS
MAXIMUM GRID #2 DISSIPATION	2	WATTS
MAXIMUM GRID #1 CIRCUIT RESISTANCE		
FIXED BIAS	0.1	MEGOHM
CATHODE BIAS	0.5	MEGOHM

CONTINUED ON FOLLOWING PAGE

→ INDICATES A CHANGE

CONTINUED FROM PRECEDING PAGE

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A_1 AMPLIFIER -- SINGLE TUBE

HEATER VOLTAGE	6.3	6.3	6.3	VOLTS
HEATER CURRENT	0.45	0.45	0.45	AMP.
PLATE VOLTAGE	180	250	315	VOLTS
GRID #2 VOLTAGE	180	250	225	VOLTS
GRID #1 VOLTAGE	-8.5	-12.5	-13.0	VOLTS
PEAK AF GRID #1 VOLTAGE	8.5	12.5	13.0	VOLTS
ZERO-SIGNAL PLATE CURRENT	29	45	34	MA.
MAXIMUM SIGNAL PLATE CURRENT	30	47	35	MA.
ZERO-SIGNAL GRID #2 CURRENT	3.0	4.5	2.2	MA.
MAXIMUM SIGNAL GRID #2 CURRENT	4.0	7.0	6.0	MA.
PLATE RESISTANCE	50	50	80	KILOHMS
TRANSCONDUCTANCE	3 700	4 100	3 750	µMHOS
LOAD RESISTANCE	5 500	5 000	8 500	OHMS
POWER OUTPUT (MAXIMUM SIGNAL)	2.0	4.5	5.5	WATTS
TOTAL HARMONIC DISTORTION	8	8	12	PERCENT

TRIODE CONNECTED*

PLATE VOLTAGE	250	VOLTS
GRID VOLTAGE	-12.5	VOLTS
PLATE CURRENT	49.5	MA.
TRANSCONDUCTANCE	5 000	µMHOS
AMPLIFICATION FACTOR	9.8	
PLATE RESISTANCE (APPROX.)	1 960	OHMS
GRID VOLTAGE (APPROX.) FOR I_b = 0.5 MA	-37	VOLTS

*INDICATES AN ADDITION.