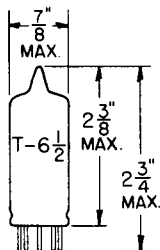


TUNG-SOL**BEAM PENTODE**

MINIATURE TYPE

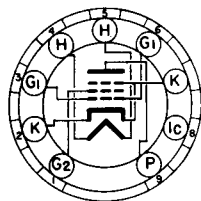
**GLASS BULB**

COATED UNIPOTENTIAL CATHODE

HEATER

6.3 VOLTS 1.2 AMP.
AC OR DC

ANY MOUNTING POSITION

**BOTTOM VIEW**
MINIATURE BUTTON
9 PIN BASE

9CK

THE 6CS5 IS A MINIATURE BEAM PENTODE DESIGNED FOR USE IN AUDIO POWER OUTPUT STAGES WHERE THE SUPPLY VOLTAGE IS FURNISHED DIRECTLY FROM THE POWER LINES BY THE USE OF A SINGLE DIODE RECTIFIER. ELECTRICALLY THE 6CS5 IS SIMILAR TO THE 6W6GT AND IS CAPABLE OF DEVELOPING THE SAME POWER OUTPUT. EXCEPT FOR HEATER RATINGS, THE 6CS5 IS IDENTICAL TO THE 12CS5.

DIRECT INTERELECTRODE CAPACITANCES — APPROX.

GRID TO PLATE: G_1 TO P	0.5	$\mu\mu\text{f}$
INPUT: G_1 TO (K+H+ G_2 +B.P.)	15	$\mu\mu\text{f}$
OUTPUT: P TO (K+H+ G_2 +B.P.)	9	$\mu\mu\text{f}$

RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

HEATER VOLTAGE	6.3	VOLTS
MAXIMUM PLATE VOLTAGE	300	VOLTS
MAXIMUM GRID #2 VOLTAGE	150	VOLTS
MAXIMUM PLATE DISSIPATION	10	WATTS
MAXIMUM GRID #2 DISSIPATION	1.25	WATTS
MAXIMUM GRID #1 CIRCUIT RESISTANCE		
FIXED BIAS	0.1	MEGOHM
SELF BIAS	0.5	MEGOHM
MAXIMUM PEAK HEATER-CATHODE VOLTAGE		
HEATER NEGATIVE WITH RESPECT TO CATHODE	200	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE*	200	VOLTS

* DC COMPONENT MUST NOT EXCEED 100 VOLTS.

CONTINUED ON FOLLOWING PAGE

TUNG-SOL

CONTINUED FROM PRECEDING PAGE

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A₁ AMPLIFIER

HEATER VOLTAGE	6.3	6.3	VOLTS
HEATER CURRENT	1.2	1.2	AMP.
PLATE VOLTAGE	110	200	VOLTS
GRID #2 (SCREEN) VOLTAGE	110	125	VOLTS
GRID #1 (CONTROL-GRID) VOLTAGE	-7.5	---	VOLTS
CATHODE BIAS RESISTOR	---	180	OHMS
PLATE RESISTANCE (APPROX.)	13 000	28 000	OHMS
TRANSCONDUCTANCE	8 000	8 000	μMHOS
GRID #1 INPUT VOLTAGE, PEAK AF	7.5	8.5	VOLTS
PLATE CURRENT, ZERO SIGNAL	49	46	MA.
PLATE CURRENT, (MAX. SIGNAL)	50	47	MA.
GRID #2 CURRENT, ZERO SIGNAL	4	2.2	MA.
GRID #2 CURRENT, (MAX. SIGNAL)	10	8.5	MA.
LOAD RESISTANCE IMPEDANCE	2 000	4 000	OHMS
TOTAL HARMONIC DISTORTION (APPROX.)	10	10	PERCENT
POWER OUTPUT, (MAX. SIGNAL)	2.1	3.8	WATTS

TRIODE CONNECTION

HEATER VOLTAGE	6.3	VOLTS
HEATER CURRENT	1.2	AMP.
PLATE & GRID #2 VOLTAGE (P+G ₂ TIED TOGETHER)	225	VOLTS
GRID #1 VOLTAGE	-30	VOLTS
PLATE RESISTANCE	1 500	OHMS
TRANSCONDUCTANCE	3 800	μMHOS
PLATE CURRENT	22	MA.
AMPLIFICATION FACTOR	6.2	
GRID #1 VOLTAGE (APPROX.) FOR I _b = 0.5 MA.	-42	VOLTS

SIMILAR TYPE REFERENCE: Except for heater ratings and heater warm-up time the 6CS5 is identical to the 12CS5.

