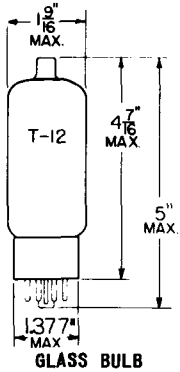
TUNG-SOL

BEAM PENTODE



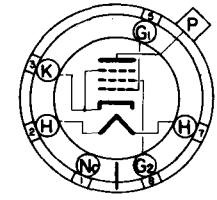
GLASS BULB

COATED UNIPOTENTIAL CATHODE

HEATER
25 VOLTS 0.6 AMP.
AC OR DC

VERTICAL MOUNTING POSITION

HORIZONTAL OPERATION IS PERMITTED IF PINS 2 AND 7 ARE IN A VERTICAL PLANE.



BOTTOM VIEW
SHORT MEDIUM-SHELL
8 PIN OCTAL
5BT

THE 25CD6GB IS A BEAM PENTODE DESIGNED FOR USE AS A HORIZONTAL DEFLECTION AMPLIFIER IN 600 MA. SERIES HEATER OPERATED TELEVISION RECEIVERS. FEATURES OF THIS TUBE ARE AN EXTREMELY HIGH PERVEANCE, HIGH PLATE CURRENT AT LOW PLATE AND SCREEN VOLTAGES AND A HIGH RATIO OF PLATE TO SCREEN CURRENT. 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 – APPROX.

WITH NO EXTERNAL SHIELD

GRID #1 TO PLATE	1.1	μμf
INPUT	22	μμf
OUTPUT	8.5	μμf

RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM[A]

HORIZONTAL-DEFLECTION AMPLIFIER SERVICE[B]

HEATER VOLTAGE	25	VOLTS
MAXIMUM HEATER-CATHODE VOLTAGE:		
HEATER POSITIVE WITH RESPECT TO CATHODE		
DC	100	VOLTS
TOTAL DC AND PEAK	200	VOLTS
HEATER NEGATIVE WITH RESPECT TO CATHODE		
TOTAL DC AND PEAK	200	VOLTS
MAXIMUM DC PLATE-SUPPLY VOLTAGE (BOOST + DC POWER SUPPLY)	700	VOLTS
MAXIMUM PEAK POSITIVE PULSE PLATE VOLTAGE	7 000	VOLTS
MAXIMUM NEGATIVE PULSE PLATE VOLTAGE	1 500	VOLTS
MAXIMUM GRID #2 VOLTAGE	175	VOLTS
MAXIMUM PEAK NEGATIVE GRID #1 VOLTAGE	200	VOLTS
MAXIMUM PLATE DISSIPATION[C]	20	WATTS
MAXIMUM GRID #2 DISSIPATION	3.0	WATTS
MAXIMUM DC CATHODE CURRENT	200	MA.
MAXIMUM PEAK CATHODE CURRENT	700	MA.
MAXIMUM GRID #1 CIRCUIT RESISTANCE	0.47	MEGOHM
MAXIMUM BULB TEMPERATURE (AT HOTTEST POINT)	225	°C
HEATER WARM-UP TIME (APPROX.)*	11.0	SECONDS

[A]UNLESS OTHERWISE SPECIFIED.

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

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

*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 OPERATING RESISTANCE.

→ INDICATES A CHANGE. CONTINUED ON FOLLOWING PAGE

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TUNG-SOL

CONTINUED FROM PRECEDING PAGE

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

HEATER VOLTAGE	25		VOLTS
HEATER CURRENT	0.6		AMP.
PLATE VOLTAGE	60	175	VOLTS
GRID #2 VOLTAGE	100	175	VOLTS
GRID #1 VOLTAGE	0[D]	-30	VOLTS
PLATE RESISTANCE (APPROX.)	---	7 200	OHMS
TRANSCONDUCTANCE	---	7 700	μMHOS
PLATE CURRENT	230	75	MA.
GRID #2 CURRENT	21	5.5	MA.
GRID #1 VOLTAGE (APPROX.) FOR I_b = 1.0 MA.	---	-55	VOLTS
TRIODE AMPLIFICATION FACTOR[E]	---	3.9	

[D] APPLIED FOR VERY SHORT INTERVAL SO AS NOT TO DAMAGE TUBE.

[E] TRIODE CONNECTION (SCREEN TIED TO PLATE) WITH $E_b = E_{c2}$ = 175 VOLTS AND E_{c1} = -30 VOLTS.

SIMILAR TYPE REFERENCE: *The 25CD6GB is identical to the 6CD6GA except for heater ratings and heater warm-up time.*