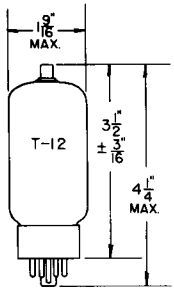
TUNG-SOL

PENTODE

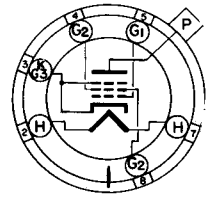


GLASS BULB

HEATER

12.6 VOLTS 0.6 AMP.

ANY MOUNTING POSITION



BOTTOM VIEW
SHORT MEDIUM OCTAL
WITH EXTERNAL BARRIERS

8JX

THE 12GC6 IS A HEATER-CATHODE TYPE BEAM PENTODE DESIGNED FOR USE AS A HORIZONTAL DEFLECTION AMPLIFIER IN TELEVISION RECEIVERS. IT HAS EXTREMELY HIGH PERVEANCE, SUCH THAT THE DESIGN OF WIDE-ANGLE DEFLECTION SYSTEMS IS MADE POSSIBLE WITHOUT THE NECESSITY OF USING AN EXPENSIVE DEFLECTION AMPLIFIER TUBE. EXCEPT FOR HEATER CHARACTERISTICS, THE 12GC6 IS IDENTICAL TO THE6GC6.

DIRECT INTERELECTRODE CAPACITANCES

GRID #1 TO PLATE: (G1 TO P)	0.55	μμf
INPUT: G1 TO (H+K+G2+B.P)	15	μμf
OUTPUT: P TO (H+K+G2+B.P.)	7.0	μμf

RATINGS

INTERPRETED ACCORDING TO DESIGN MAXIMUM SYSTEM

HORIZONTAL DEFLECTION AMPLIFIER[A]

HEATER VOLTAGE	12.6	VOLTS
MAXIMUM PLATE SUPPLY VOLTAGE (BOOST+DC POWER SUPPLY)	770	VOLTS
MAXIMUM GRID #2 VOLTAGE	220	VOLTS
MAXIMUM PLATE DISSIPATION[B]	17.5	WATTS
MAXIMUM GRID #2 DISSIPATION	4.5	WATTS
MAXIMUM AVERAGE CATHODE CURRENT	175	MA.
MAXIMUM PEAK CATHODE CURRENT	550	MA.
MAXIMUM PEAK POSITIVE PLATE VOLTAGE	6500	VOLTS
MAXIMUM PEAK NEGATIVE PLATE VOLTAGE	1500	VOLTS
MAXIMUM PEAK NEGATIVE GRID #1 VOLTAGE	330	VOLTS
MAXIMUM GRID #1 CIRCUIT RESISTANCE	1.0	MEG.
MAXIMUM BULB TEMPERATURE (AT HOTTEST POINT)	220	°C
MAXIMUM 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
HEATER WARM-UP TIME*	11.0	SECONDS

CONTINUED FROM PRECEDING PAGE

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

AVERAGE CHARACTERISTICS

HEATER VOLTAGE	12.6	VOLTS
HEATER CURRENT	0.6	AMP.
PLATE VOLTAGE	250	VOLTS
GRID #2 VOLTAGE	150	VOLTS
GRID #1 VOLTAGE	-22.5	VOLTS
PLATE CURRENT	75	MA.
GRID #2 CURRENT	2.4	MA.
TRIODE AMPLIFICATION FACTOR[C]	4.1	
TRANSCONDUCTANCE	6600	μMHOS
PLATE RESISTANCE	20000	OHMS
GRID #1 VOLTAGE (APPROX.) FOR Ib= 1 MA. (APPROX.)	-46	VOLTS
ZERO-BIAS: WITH Eb=60 V., AND Ec2 = 150 V.(INSTANTANEOUS VALUE)		
PLATE CURRENT	345	MA.
GRID #2 CURRENT	30	MA.
CUTOFF: FOR Ib= 1MA. WITH E_b =5000 V., AND Ec2 = 150 V (APPROX. VALUE)	-100	VOLTS

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

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

C. Eb=Ec2=150 VOLTS.

DESIGN-MAXIMUM RATINGS ARE LIMITING VALUES OF OPERATING AND ENVIRONMENTAL CONDITIONS APPLICABLE TO A BOGEY ELECTRON DEVICE OF A SPECIFIED TYPE AS DEFINED BY ITS PUBLISHED DATA AND SHOULD NOT BE EXCEEDED UNDER THE WORST PROBABLE CONDITIONS. THE DEVICE MANUFACTURER CHOOSES THESE VALUES TO PROVIDE ACCEPTABLE SERVICEABILITY OF THE DEVICE TAKING RESPONSIBILITY FOR THE EFFECTS OF CHANGES IN OPERATING CONDITIONS DUE TO VARIATIONS IN DEVICE CHARACTERISTICS. THE EQUIPMENT MANUFACTURER SHOULD DESIGN SO THAT INITIALLY AND THROUGHOUT LIFE NO DESIGN-MAXIMUM VALUE FOR THE INTENDED SERVICE IS EXCEEDED WITH A BOGEY DEVICE UNDER THE WORST PROBABLE OPERATING CONDITIONS WITH RESPECT TO SUPPLY-VOLTAGE VARIATION, EQUIPMENT COMPONENT VARIATION, EQUIPMENT CONTROL ADJUSTMENT, LOAD VARIATION, SIGNAL VARIATION, AND ENVIRONMENTAL CONDITIONS.

* HEATER WARM-UP TIME IS DEFINED AS THE TIME REQUIRED FOR THE VOLTAGE ACROSS THE HEATER TERMINALS TO INCREASE FROM ZERO TO THE HEATER TEST VOLTAGE (V_1).

E = 50 Volts (RMS or DC)

V_1 = 10.0 Volts (RMS or DC)

R = 63 Ohms