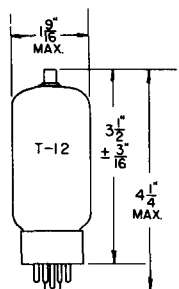


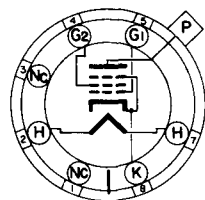
TUNG-SOL**BEAM POWER PENTODE****GLASS BULB**SKIRTED MINIATURE
CAP

UNIPOENTIAL CATHODE

HEATER

25.0 VOLTS 0.30 AMP.
AC OR DC

ANY MOUNTING POSITION

**BOTTOM VIEW**SHORT MEDIUM-SHELL
7 PIN OCTAL
WITH EXTERNAL BARRIERS

6AM

THE 250Q6A IS A HIGH-PERVEANCE BEAM POWER PENTODE DESIGNED FOR USE AS A HORIZONTAL DEFLECTION AMPLIFIER TUBE IN HIGH EFFICIENCY DEFLECTION CIRCUITS OF 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 TUBES WHICH ARE SIMILARLY CONTROLLED. EXCEPT FOR THE CONTROLLED HEATER WARM-UP TIME AND HEATER RATINGS THE 250Q6A IS IDENTICAL TO THE 6DQ6A.

DIRECT INTERELECTRODE CAPACITANCES—APPROX.
WITHOUT EXTERNAL SHIELD

GRID #1 TO PLATE	0.55	$\mu\mu\text{f}$
GRID #1 TO CATHODE & GRID #3, HEATER AND GRID #2	15	$\mu\mu\text{f}$
PLATE TO CATHODE & GRID #3, HEATER AND GRID #2	7	$\mu\mu\text{f}$

RATINGS^AINTERPRETED ACCORDING TO DESIGN CENTER SYSTEM
HORIZONTAL DEFLECTION AMPLIFIER

HEATER VOLTAGE	25.0	VOLTS
MAXIMUM PLATE VOLTAGE:		
DC (INCLUDING BOOST)	700	VOLTS
PEAK POSITIVE—PULSE (ABSOLUTE MAX.) ^B	6 000 ^C	VOLTS
PEAK NEGATIVE—PULSE ^B	1 375	VOLTS
MAXIMUM DC GRID #2 VOLTAGE	200	VOLTS
MAXIMUM GRID #1 VOLTAGE:		
DC	-50	VOLTS
PEAK NEGATIVE—PULSE	300	VOLTS
MAXIMUM CATHODE CURRENT:		
DC	140	MA.
PEAK	440	MA.
MAXIMUM GRID #2 INPUT	3	WATTS

^A FOR OPERATION IN A 525-LINE, 30-FRAME SYSTEM AS DESCRIBED IN "STANDARDS OF GOOD ENGINEERING PRACTICE FOR TELEVISION BROADCAST STATIONS; FEDERAL COMMUNICATIONS COMMISSION".

^B THIS RATING IS APPLICABLE WHERE THE DURATION OF THE VOLTAGE PULSE DOES NOT EXCEED 15% OF ONE HORIZONTAL SCANNING CYCLE. IN A 525-LINE, 30-FRAME SYSTEM, 15% OF THE HORIZONTAL SCANNING CYCLE IS 10 MICROSECONDS.

^C UNDER NO CIRCUMSTANCES SHOULD THIS ABSOLUTE VALUE BE EXCEEDED.

CONTINUED ON FOLLOWING PAGE

TUNG-SOL

CONTINUED FROM PRECEDING PAGE

RATINGS^A CONT'D.
 INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM
 HORIZONTAL DEFLECTION AMPLIFIER

MAXIMUM PLATE DISSIPATION ^D	15	WATTS
MAXIMUM PEAK HEATER-CATHODE VOLTAGE: HEATER NEGATIVE WITH RESPECT TO CATHODE TOTAL DC AND PEAK	200	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE DC COMPONENT	100	VOLTS
TOTAL DC AND PEAK	200	VOLTS
MAXIMUM BULB TEMPERATURE (AT HOTTEST POINT ON BULB SURFACE)	220	°C
MAXIMUM CIRCUIT VALUES:		
GRID #1 CIRCUIT RESISTANCE: FOR GRID RESISTOR-BIAS OPERATION ^D	1.0	MEGOHM
HEATER WARM-UP TIME (AVERAGE)*	11.0	SECONDS

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS
 CLASS A₁ AMPLIFIER

HEATER VOLTAGE	25.0	25.0	25.0	VOLTS
HEATER CURRENT	0.30	0.30	0.30	AMP.
PLATE VOLTAGE	60	150	250	VOLTS
GRID #2 VOLTAGE	150	150	150	VOLTS
GRID #1 VOLTAGE	0	-22.5	-22.5	VOLTS
MU-FACTOR, GRID #2 TO GRID #1	---	4.1	---	
PLATE RESISTANCE (APPROX.)	---	---	20 000	OHMS
TRANSCONDUCTANCE	---	---	6 600	μMHMS
PLATE CURRENT	300 ^E	---	75	MA.
GRID #2 CURRENT	27 ^E	---	2.4	MA.
GRID #1 VOLTAGE (APPROX.) FOR PLATE CURRENT OF 1 MA.	---	---	-46	VOLTS

^A FOR OPERATION IN A 525-LINE, 30-FRAME SYSTEM AS DESCRIBED IN "STANDARDS OF GOOD ENGINEERING PRACTICE FOR TELEVISION BROADCAST STATIONS; FEDERAL COMMUNICATIONS COMMISSION".

^D IT IS ESSENTIAL THAT THE PLATE DISSIPATION BE LIMITED IN THE EVENT OF LOSS OF GRID SIGNAL. FOR THIS PURPOSE, SOME PROTECTIVE MEANS SUCH AS A CATHODE RESISTOR OF SUITABLE VALUE SHOULD BE EMPLOYED.

^E THESE VALUES CAN BE MEASURED BY A METHOD INVOLVING A RECURRENT WAVEFORM SUCH THAT THE PLATE DISSIPATION AND GRID #2 INPUT WILL BE KEPT WITHIN RATINGS IN ORDER TO PREVENT DAMAGE TO THE TUBE.

* 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.

