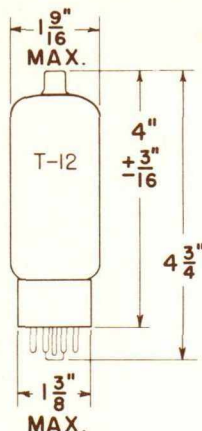


TUNG-SOL

BEAM PENTODE



GLASS BULB
SMALL TOP CAP

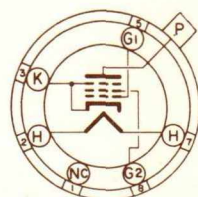
COATED UNIPOTENTIAL CATHODE

HEATER

25 VOLTS 0.6 AMP.

AC OR DC

ANY MOUNTING POSITION



BOTTOM VIEW
SHORT MEDIUM-SHELL
8 PIN OCTAL
5BT

THE 25EC6 IS A BEAM POWER PENTODE DESIGNED FOR USE AS THE HORIZONTAL-DEFLECTION AMPLIFIER TUBE IN TELEVISION RECEIVERS THAT EMPLOY 110 DEGREE-DEFLECTION PICTURE TUBES. IT HAS ELECTRICAL CHARACTERISTICS SIMILAR TO THOSE OF THE 25CD6GB AND IN ADDITION, 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.
WITHOUT EXTERNAL SHIELD

GRID #1 TO PLATE	0.6	$\mu\mu\text{f}$
INPUT	24	$\mu\mu\text{f}$
OUTPUT	10	$\mu\mu\text{f}$

RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

HORIZONTAL-DEFLECTION AMPLIFIER SERVICE^A

HEATER VOLTAGE	25	VOLTS
MAXIMUM DC PLATE-SUPPLY VOLTAGE (BOOST+DC POWER SUPPLY)	700	VOLTS
MAXIMUM PEAK POSITIVE PULSE PLATE VOLTAGE	7 000	VOLTS
MAXIMUM PEAK NEGATIVE PULSE PLATE VOLTAGE	1 500	VOLTS
MAXIMUM SCREEN VOLTAGE	175	VOLTS
MAXIMUM PEAK NEGATIVE GRID #1 VOLTAGE	300	VOLTS
MAXIMUM PLATE DISSIPATION ^B	10	WATTS
MAXIMUM SCREEN DISSIPATION	4.0	WATTS
MAXIMUM DC CATHODE CURRENT	200	MA.
MAXIMUM PEAK CATHODE CURRENT	700	MA.

^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", THE DUTY CYCLE OF THE VOLTAGE PULSE MUST NOT EXCEED 15% OF ONE SCANNING CYCLE.

^B 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.

CONTINUED ON FOLLOWING PAGE

TUNG-SOL

CONTINUED FROM PRECEDING PAGE

RATINGS--CONT'D.

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

HORIZONTAL-DEFLECTION AMPLIFIER SERVICE^A

MAXIMUM

MAXIMUM HEATER-CATHODE VOLTAGE:

HEATER POSITIVE WITH RESPECT TO CATHODE		
DC COMPONENT	100	VOLTS
TOTAL DC AND PEAK	200	VOLTS
HEATER NEGATIVE WITH RESPECT TO CATHODE		
TOTAL DC AND PEAK	200	VOLTS
MAXIMUM GRID #1 CIRCUIT RESISTANCE		
WITH GRID-LEAK BIAS	1.5	MEGOHMS
MAXIMUM BULB TEMPERATURE (AT HOTTEST POINT)		
	225	°C
HEATER WARM-UP TIME (APPROX.)*		
	11.0	SECONDS

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

HEATER VOLTAGE	25	VOLTS
HEATER CURRENT	0.6±6%	AMP.
PLATE VOLTAGE	60	135 VOLTS
SCREEN VOLTAGE	135	135 VOLTS
GRID #1 VOLTAGE	0 ^C	-22.5 VOLTS
PLATE RESISTANCE (APPROX.)	---	4 700 OHMS
TRANSCONDUCTANCE	---	7 500 μMHOS
PLATE CURRENT	350	70 MA.
SCREEN CURRENT	40	4.5 MA.
GRID #1 VOLTAGE (APPROX.)	---	---
I _b = 1.0 MA.	---	-42 VOLTS
TRIODE AMPLIFICATION FACTOR ^D	---	3.8

^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", THE DUTY CYCLE OF THE VOLTAGE PULSE MUST NOT EXCEED 15% OF ONE SCANNING CYCLE.

^C APPLIED FOR SHORT INTERVAL (TWO SECONDS MAXIMUM) SO AS NOT TO DAMAGE TUBE.

^D TRIODE CONNECTION (SCREEN TIED TO PLATE) WITH E_b=E_{c2}=135 VOLTS AND E_{c1}=-22.5 VOLTS.

* 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.

DESIGN-MAXIMUM RATINGS ARE THE LIMITING VALUES EXPRESSED WITH RESPECT TO BOGIE TUBES AT WHICH SATISFACTORY TUBE LIFE CAN BE EXPECTED TO OCCUR. TO OBTAIN SATISFACTORY CIRCUIT PERFORMANCE, THEREFORE, THE EQUIPMENT DESIGNER MUST ESTABLISH THE CIRCUIT DESIGN SO THAT NO DESIGN-MAXIMUM VALUE IS EXCEEDED WITH A BOGIE TUBE UNDER THE WORST PROBABLE OPERATING CONDITIONS WITH RESPECT TO SUPPLY-VOLTAGE VARIATION, EQUIPMENT COMPONENT VARIATION, EQUIPMENT CONTROL ADJUSTMENT, LOAD VARIATION, AND ENVIRONMENTAL CONDITIONS.

