TUNG-SOL

PENTODE

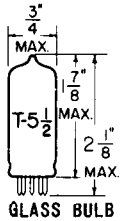
MINIATURE TYPE

COATED UNIPOTENTIAL CATHODE

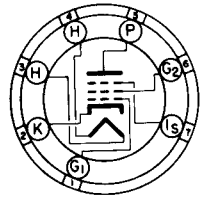
HEATER

4.2 VOLTS 0.45 AMP.
AC OR DC

ANY MOUNTING POSITION



GLASS BUB



BOTTOM VIEW
MINIATURE BUTTON
7 PIN BASE

7CM

THE 4CB6 IS A SHARP CUT-OFF PENTODE USING THE SMALL BUTTON SEVEN PIN MINIATURE CONSTRUCTION. IT IS DESIGNED FOR USE IN 450 MA. SERIES HEATER OPERATED RECEIVERS AS AN IF AMPLIFIER OPERATING AT FREQUENCIES ABOVE 20 MC. IT IS ALSO WELL SUITED FOR USE AS AN RF AMPLIFIER IN VHF TELEVISION RECEIVERS. IT IS CHARACTERIZED BY HIGH TRANSCONDUCTANCE AND LOW CAPACITANCE VALUES. 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. WITH EXCEPTION OF HEATER RATINGS ITS CHARACTERISTICS ARE IDENTICAL TO THE 6CB6.

DIRECT INTERELECTRODE CAPACITANCES

	WITHOUT SHIELD	WITH[A] SHIELD	
GRID TO PLATE: (G_1 TO P) MAX.	0.025	.015	μμf
INPUT: G_1 TO (H+K+G_2+G_3&IS)	6.5	6.5	μμf
OUTPUT: P TO (H+K+G_2+G_3&IS)	2.0	3.0	μμf

[A] EXTERNAL SHIELD #316 CONNECTED TO PIN #2.

RATINGS

INTERPRETED ACCORDING TO DESIGN MAXIMUM SYSTEM[B]

HEATER VOLTAGE	4.2	VOLTS
MAXIMUM PLATE VOLTAGE	330	VOLTS
MAXIMUM GRID #2 VOLTAGE	SEE J5-C4-2	
MAXIMUM GRID #2 SUPPLY VOLTAGE	330	VOLTS
MAXIMUM PLATE DISSIPATION	2.3	WATTS
MAXIMUM GRID #2 DISSIPATION	0.55	WATT
MAXIMUM POSITIVE DC GRID #1 VOLTAGE	0	VOLTS
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 (APPROX.)*	11.0	SECONDS

● DC COMPONENT MUST NOT EXCEED 200 VOLTS.

→ INDICATES A CHANGE.

CONTINUED ON FOLLOWING PAGE

TUNG-SOL

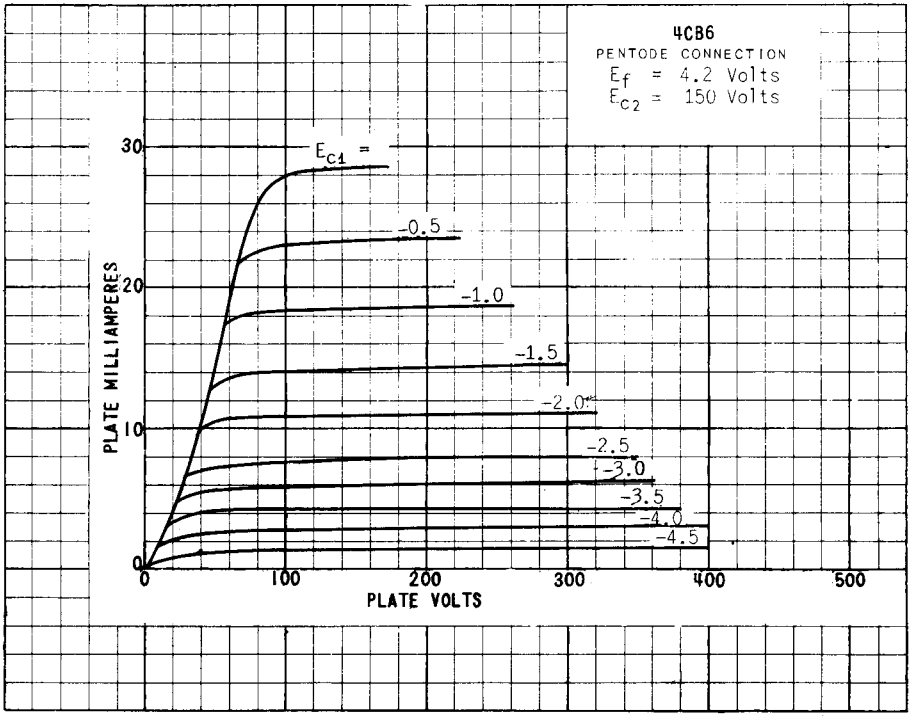
CONTINUED FROM PRECEDING PAGE

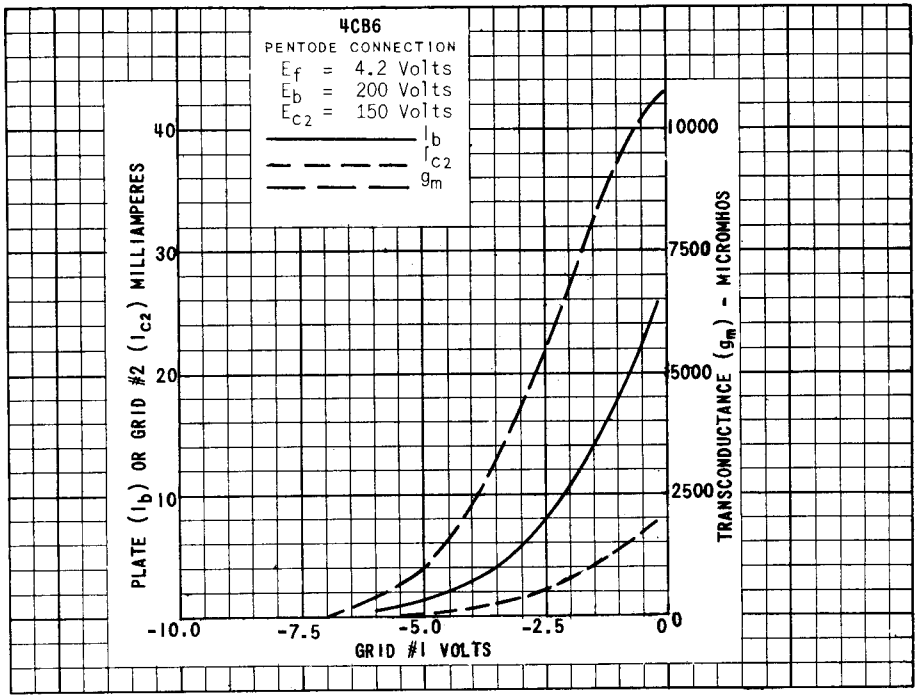
TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

HEATER VOLTAGE	4.2	VOLTS
HEATER CURRENT	0.45	AMP.
PLATE VOLTAGE	125	VOLTS
GRID #2 VOLTAGE	125	VOLTS
GRID #3 VOLTAGE		
CATHODE BIAS RESISTOR	56	OHMS
PLATE RESISTANCE (APPROX.)	0.28	MEGOHM
TRANSCONDUCTANCE	8 000	μMHOS
PLATE CURRENT	13.0	MA.
GRID #2 CURRENT	3.7	MA.
GRID #1 VOLTAGE (APPROX.) FOR I_b=20 μA.	-6.5	VOLTS
PLATE CURRENT AT E_{c1}=-3V., R_k=0	2.8	MA.

B DESIGN MAXIMUM RATINGS ARE THE LIMITING VALUES EXPRESSED WITH RESPECT TO BOGIE TUBES AT WHICH SATISFACTORY TUBE LIFE CAN BE EXPECTED TO OCCUR IN THE TYPES OF SERVICE FOR WHICH THE TUBE IS RATED. THEREFORE, THE EQUIPMENT DESIGNER MUST ESTABLISH THE CIRCUIT DESIGN SO THAT INITIALLY AND THROUGHOUT EQUIPMENT LIFE 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.

*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.





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