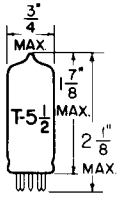
TUNG-SOL

PENTODE

MINIATURE TYPE

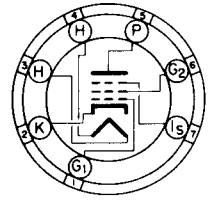


GLASS BULB

COATED UNIPOTENTIAL CATHODE

HEATER
4.2 VOLTS 0.45 AMP.
AC OR DC

ANY MOUNTING POSITION



BOTTOM VIEW
MINIATURE BUTTON
7 PIN BASE
7CM

THE 4DE6 IS A SHARP-CUTOFF PENTODE USING THE 7 PIN MINIATURE CONSTRUCTION. IT IS DESIGNED FOR USE IN 40 MEGACYCLE GAIN-CONTROLLED VIDEO IF STAGES. EXCEPT FOR HEATER CHARACTERISTICS, THE 4DE6 IS IDENTICAL TO THE 6DE6.

DIRECT INTERELECTRODE CAPACITANCES

	WITH SHIELD[A]	WITHOUT SHIELD	
GRID TO PLATE: (G_1 TO P) (MAX.)	.015	.025	μμf
INPUT: G_1 TO (H+K+G_2+G_3+i.s.)	6.5	6.5	μμf
OUTPUT: P TO (H+K+G_2+G_3+i.s.)	3.0	2.0	μμf

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

RATINGS[B]

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

CLASS A_1 AMPLIFIER

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

[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.

CONTINUED ON FOLLOWING PAGE

TUNG-SOL

CONTINUED FROM PRECEDING PAGE

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A_1 AMPLIFIER

HEATER VOLTAGE	4.2	VOLTS
HEATER CURRENT	0.45	AMP.
PLATE VOLTAGE	125	VOLTS
GRID #3 VOLTAGE	PIN 7 CONNECTED TO PIN 2 AT SOCKET	
GRID #2 VOLTAGE	125	VOLTS
CATHODE BIAS RESISTOR	56	OHMS
PLATE RESISTANCE (APPROX.)	0.25	MEGOHM
TRANSCONDUCTANCE	8 000	µMHOS
GRID #1 VOLTAGE (APPROX.) FOR Ib = 20 µA	-9	VOLTS
TRANSCONDUCTANCE (E_{c1} = -5.5V., Rk = 0)	700	µMHOS
PLATE CURRENT	15.5	MA.
GRID #2 CURRENT	4.2	MA.

*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.