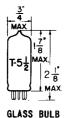
# -- TUNG-SOL -

#### PENTODE

MINIATURE TYPE



COATED UNIPOTENTIAL CATHODE
HEATER

4.2 VOLTS 0.45±6% AMP. AC OR DC

ANY MOUNTING POSITION



BOTTOM VIEW
MINIATURE BUTTON
7 PIN BASE

THE 48Z6 IS A HIGH TRANSCONDUCTANCE, SEMI-REMOIL CUT-OFF, PENIODE AMPLIFIER. IT IS DESIGNED FOR SERVICE AS AN AUTOMATIC GAIN CONTROLLED IF AMPLIFIER IN 450 MA. SERIES HEATER OPERATED 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 TYPES WHICH ARE SIMILARLY CONTROLLED. WITH THE EXCEPTION OF HEATER RATINGS, ITS CHARACTERISTICS ARE IDENTICAL TO THE 68Z6.

#### DIRECT INTERELECTRODE CAPACITANCES

	SHIELD <sup>A</sup>	WITHOUT SHIELD	
GRID TO PLATE: G, TO P (MAX.)	.015	.025	µµ f
INPUT: G1 TO (H+K+G2+G3+IS)	7.0	7.0	µц f
OUTPUT: P TO (H+K+G <sub>2</sub> +G <sub>3</sub> +IS)	3.0	2.0	иµ f

AEXTERNAL SHIELD #316 CONNECTED TO CATHODE AT SOCKET.

## RATINGS B INTERPRETED ACCORDING TO DESIGN CENTER VALUES

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		TOE 13
DC	100	VOLTS
TOTAL DC AND PEAK	200	VOLTS
MAXIMUM PLATE VOLTAGE	330	VOL TS
MAXIMUM GRID #2 VOLTAGE	SEE RATING	CURVE
MAXIMUM PLATE DISSIPATION	2.3	WATTS
MAXIMUM GRID #2 DISSIPATION	0.55	WATT
MAXIMUM GRID #2 SUPPLY VOLTAGE	330	VOLTS
MAXIMUM POSITIVE DC GRID #1 VOLTAGE	0	VOLTS
HEATER WARM-UP TIME (APPROX.)*	11.0	SECONDS

CONTINUED ON FOLLOWING PAGE

<sup>\*</sup>HEATER WARM—UP TIME IS DEFINED AS THE TIME REQUIRED FOR THE VOLTAGE ACROSS THE HEATER TO REACH BO\$ 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.

## --- TUNG-SOL ----

CONTINUED FROM PRECEDING PAGE

## TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A1 AMPLIFIER

HEATER VOLTAGE HEATER CURRENT	4.2 0.45±6%	VOLTS
PLATE VOLTAGE	125	VOL TS
GRID #2 VOLTAGE	125	VOLTS
GRID #3 VOLTAGE PIN #7 CONNECTED	TO PIN #2 AT	SOCKET
CATHODE BIAS RESISTOR	56	OHMS
PLATE RESISTANCE (APPROX.)	0.26	ME GOHM
TRANSCONDUCTANCE	8 000	μMH0S
PLATE CURRENT	14	MA.
GRID #2 CURRENT	3.6	MA.
GRID #1 VOLTAGE (APPROX.) FOR Gm = 50 MMHOS	-19	VOLTS
TRANSCONDUCTANCE (Ec1=-4.5 V., Rk=O)	700	$\mu$ MHOS

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 EXCECED WITH BOGIE TUBE UNDER THE
WORST PROBABLE OPERATING CONDITIONS WITH RESPECT TO SUPPLY-VOLTAGE VARIATION, EQUIPMENT COMPORENT VARIATION, EQUIPMENT CONTROL ADJUSTMENT, LOAD VARIATION, AND ENVIRONMENTAL CONDITIONS.

