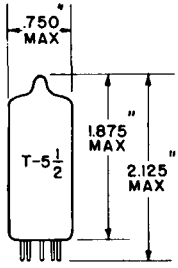
TUNG-SOL

PENTODE

MINIATURE TYPE

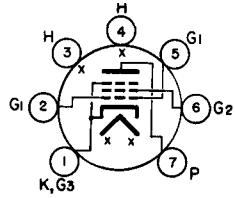


GLASS BULB
MINIATURE BUTTON
7 PIN BASE E7-1
OUTLINE DRAWING
JEDEC 5-2

COATED UNIPOTENTIAL CATHODE

FOR AUDIO OUTPUT
APPLICATIONS
IN RADIO AND T.V.
RECEIVERS

ANY MOUNTING POSITION



BOTTOM VIEW

BASING DIAGRAM
JEDEC 7CV

THE 4GZ5 IS A POWER PENTODE IN THE 7 PIN MINIATURE CONSTRUCTION. IT IS INTENDED FOR USE IN THE AUDIO OUTPUT STAGE OF RADIO AND TELEVISION RECEIVERS. ITS HEATER IS DESIGNED FOR OPERATION IN A 600 MILLIAMPERE SERIES STRING CIRCUIT.

DIRECT INTERELECTRODE CAPACITANCES

WITHOUT EXTERNAL SHIELD

GRID #1 TO PLATE: G1 TO P	0.24	pf
INPUT: G1 TO (H+K+G2)	8.5	pf
OUTPUT: P TO (H+K+G2)	3.8	pf

HEATER CHARACTERISTICS AND RATINGS

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

AVERAGE CHARACTERISTICS	4.0 VOLTS	600	MA.
HEATER WARM-UP TIME[A]		11	SECONDS
HEATER SUPPLY LIMITS:			
CURRENT OPERATION		600±40	MA.
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 RATINGS

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

PLATE VOLTAGE	300	VOLTS
GRID #2 VOLTAGE	300	VOLTS
POSITIVE DC GRID #1 VOLTAGE	0	VOLTS
PLATE DISSIPATION	4.8	WATTS
GRID #2 DISSIPATION - CONTINUOUS	1.1	WATTS
CATHODE CURRENT- AVERAGE	30	MA.
GRID #1 CIRCUIT RESISTANCE		
FIXED BIAS	.5	MEGOHM
SELF BIAS	1.0	MEGOHM
BULB TEMPERATURE	200	°C

CONTINUED ON FOLLOWING PAGE

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TUNG-SOL

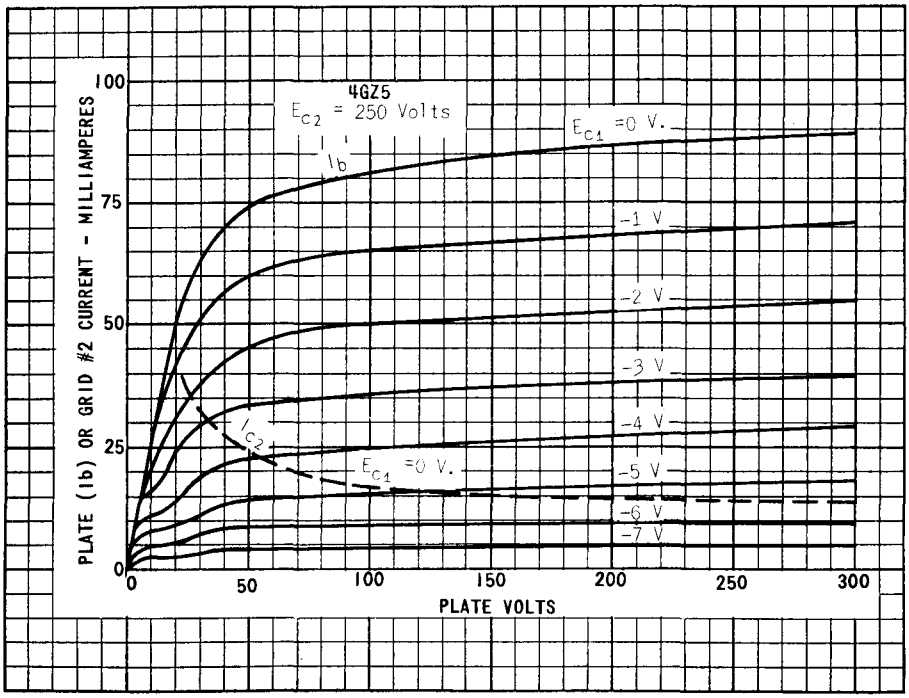
CONTINUED FROM PRECEDING PAGE

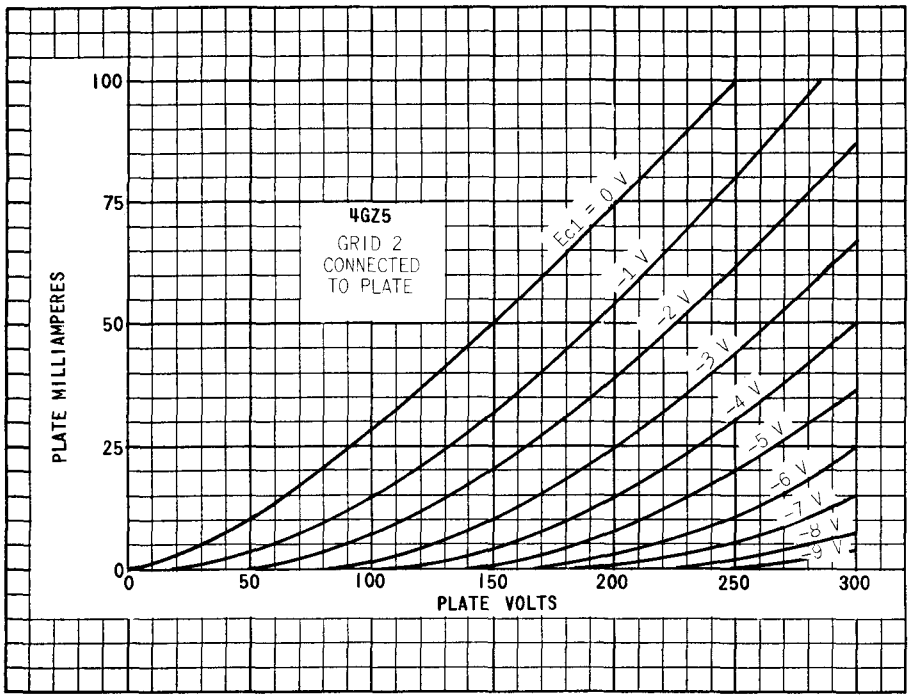
TYPICAL OPERATING CHARACTERISTICS

CLASS A1 AUDIO AMPLIFIER

PLATE SUPPLY VOLTAGE	250	250	VOLTS
GRID #2 SUPPLY VOLTAGE	250	250	VOLTS
CATHODE RESISTOR	270	270	OHMS
BYPASSING	NONE	CONDENSER	
PEAK AUDIO GRID #1 VOLTAGE	9.8	2.0	VOLTS
ZERO SIGNAL PLATE CURRENT	16	16	MA.
MAXIMUM SIGNAL PLATE CURRENT	16	16	MA.
ZERO SIGNAL GRID #2 CURRENT	2.7	2.7	MA.
MAXIMUM SIGNAL GRID #2 CURRENT	5.0	5.0	MA.
TRANSCONDUCTANCE	---	8400	μMHOS
PLATE RESISTANCE (APPROX.)	---	.15	MEGOHMS
LOAD RESISTANCE	15 000	15 000	OHMS
TOTAL HARMONIC DISTORTION	10	10	PERCENT
POWER OUTPUT	1.8	1.1	WATTS

A
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 THE 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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