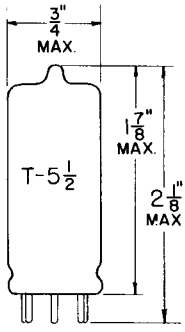
TUNG-SOL

TRIODE DOUBLE DIODE

MINIATURE TYPE



GLASS BULB

MINIATURE BUTTON
7 PIN BASE E7-1

OUTLINE DRAWING
JEDEC 5-2

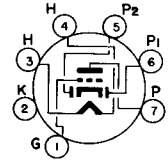
COATED UNIPOTENTIAL CATHODE

HEATER

18 VOLTS[B] 0.10 AMP.

SERIES OPERATION

ANY MOUNTING POSITION



BOTTOM VIEW

BASING DIAGRAM
JEDEC 7BT

THE 18GE6A IS A HIGH MU TRIODE DOUBLE DIODE IN THE 7 PIN MINIATURE CONSTRUCTION. IT FEATURES 100 MILLIAMPERE HEATER AND IS DESIGNED FOR DETECTOR-AMPLIFIER APPLICATIONS IN AC/DC TYPE RADIO RECEIVERS.

DIRECT INTERELECTRODE CAPACITANCES

WITHOUT EXTERNAL SHIELD

GRID TO PLATE	1.8	pf
INPUT: G TO (H + K)	2.4	pf
OUTPUT: P TO (H + K)	0.2	pf
GRID TO DIODE #2 PLATE (MAX.)	0.2	pf

RATINGS

INTERPRETED ACCORDING TO DESIGN MAXIMUM SYSTEM[A]

HEATER CURRENT[C]	0.100±0.006	AMPS.
MAXIMUM PLATE VOLTAGE	150	VOLTS
MAXIMUM PLATE DISSIPATION	0.5	WATT
MAXIMUM DIODE PLATE CURRENT, (EACH DIODE)	1.0	MA.
MAXIMUM HEATER-CATHODE VOLTAGE[A]	100	VOLTS
HEATER NEGATIVE WITH RESPECT TO CATHODE		
TOTAL DC AND PEAK	100	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE		
TOTAL DC AND PEAK	100	VOLTS
HEATER WARM-UP TIME*	20	SECONDS

[A] DESIGN-MAXIMUM RATINGS ARE LIMITING VALUES OF OPERATING AND ENVIRONMENTAL CONDITIONS APPLICABLE TO A BOGEY ELECTRON DEVICE OF A SPECIFIED TYPE AS DEFINED BY ITS PUBLISHED DATA, AND SHOULD NOT BE EXCEEDED UNDER THE WORST PROBABLE CONDITIONS. THE DEVICE MANUFACTURER CHOOSES THESE VALUES TO PROVIDE ACCEPTABLE SERVICEABILITY OF THE DEVICE, TAKING RESPONSIBILITY FOR THE EFFECTS OF CHANGES IN OPERATING CONDITIONS DUE TO VARIATIONS IN DEVICE CHARACTERISTICS. THE EQUIPMENT MANUFACTURER SHOULD DESIGN SO THAT INITIALLY AND THROUGHOUT LIFE NO DESIGN-MAXIMUM VALUE FOR THE INTENDED SERVICE IS EXCEEDED WITH A BOGEY DEVICE UNDER THE WORST PROBABLE OPERATING CONDITIONS WITH RESPECT TO SUPPLY-VOLTAGE VARIATION, EQUIPMENT COMPONENT VARIATION, EQUIPMENT CONTROL ADJUSTMENT, LOAD VARIATION, SIGNAL VARIATION, AND ENVIRONMENTAL CONDITIONS.

[B] FOR SERIES OPERATION OF HEATERS, EQUIPMENT SHOULD BE DESIGNED THAT AT NORMAL SUPPLY VOLTAGE BOGEY TUBES WILL OPERATE AT THIS VALUE OF HEATER CURRENT.

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TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A_1 AMPLIFIER

PLATE VOLTAGE	100	VOLTS
GRID VOLTAGE	−1	VOLTS
PLATE CURRENT	1.0	MA.
PLATE RESISTANCE	40 000	OHMS
TRANSCONDUCTANCE	1 700	μMHOS
AMPLIFICATION FACTOR	70	
AVERAGE DIODE CURRENT, EACH DIODE[D] WITH 10 VOLTS DC APPLIED	2.0	MA.

[C]HEATER VOLTAGE SUPPLY VARIATIONS SHALL BE RESTRICTED TO MAINTAIN HEATER CURRENT WITHIN THE SPECIFIED VALUES.

[D]TEST CONDITION ONLY.

*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 REATER IN SERIES WITH A RESISTANCE OF VALUE 3 TIMES THE NOMINAL HEATER OPERATING RESISTANCE.

SIMILAR TYPE REFERENCE: *Except for heater-warm-up time, the 18GE6A is identical to the 18GE6.*