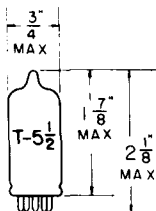


TUNG-SOL

DOUBLE DIODE TRIODE

MINIATURE TYPE



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

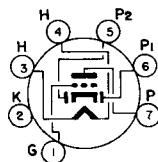
COATED UNIPOTENTIAL CATHODE

HEATER

18 VOLTS 0.10 AMP.

AC OR DC

ANY MOUNTING POSITION



BOTTOM VIEW

MINIATURE BUTTON
7 PIN BASE

RISING DIAGRAM
JEDEC 7BT

THE 18FY6A IS A HIGH MU TRIODE DOUBLE DIODE IN THE 7 PIN MINIATURE CONSTRUCTION. IT IS ESPECIALLY SUITED FOR USE IN AC/DC RADIOS THAT EMPLOY 100 MA. SERIES CONNECTED HEATERS. EXCEPT FOR HEATER RATINGS, THE 18FY6A IS IDENTICAL TO THE 18FY6.

DIRECT INTERELECTRODE CAPACITANCES

	WITH SHIELD	WITHOUT SHIELD	
GRID TO PLATE	1.8	1.8	$\mu\mu\text{f}$
INPUT	2.4	2.4	$\mu\mu\text{f}$
OUTPUT	2	0.22	$\mu\mu\text{f}$
GRID TO DIODE #2 PLATE (MAX.)	0.2	0.2	$\mu\mu\text{f}$

^A SHIELD #316 CONNECTED TO PIN #2.

RATINGS

INTERPRETED ACCORDING TO DESIGN MAXIMUM SYSTEM^B

HEATER CURRENT ^C	0.100±0.006	AMPS.
MAXIMUM PLATE VOLTAGE	150	VOLTS
MAXIMUM PLATE DISSIPATION	0.5	WATT
MAXIMUM POSITIVE GRID VOLTAGE	0	VOLTS
MAXIMUM DIODE PLATE CURRENT (EACH DIODE)	1.0	MA.
MAXIMUM HEATER-CATHODE VOLTAGE:		
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

CONTINUED ON FOLLOWING PAGE

TUNG-SOL

CONTINUED FROM PRECEDING PAGE

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A₁ AMPLIFIER

HEATER VOLTAGE (SERIES OPERATION)	18	VOLTS
HEATER CURRENT ^D (SERIES OPERATION)	0.10	AMP.
PLATE VOLTAGE	100	VOLTS
GRID VOLTAGE	-1	VOLTS
PLATE CURRENT	0.6	MA.
PLATE RESISTANCE	77 000	OHMS
TRANSCONDUCTANCE	1 300	μMHOS
AMPLIFICATION FACTOR	100	
AVERAGE DIODE CURRENT (EA.DIODE) WITH 10V. APPLIED ^E	2.0	MA.

^B 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.

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

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

*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.

^E TEST CONDITION ONLY.