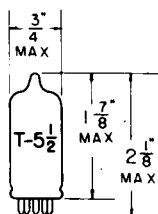


TUNG-SOL

PENTODE
MINIATURE TYPE

GLASS BULB

MINIATURE BUTTON
9 PIN BASE E7-1
OUTLINE DRAWING
JEDEC 5-2

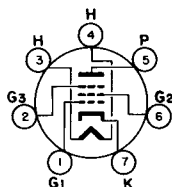
COATED UNIPOTENTIAL CATHODE

HEATER

18 VOLTS 0.10 AMP.

AC OR DC

ANY MOUNTING POSITION



BOTTOM VIEW

BASING DIAGRAM
JEDEC 7CC

THE 18FW6A IS A SEMI REMOTE CUTOFF PENTODE 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 18FW6A IS IDENTICAL TO THE 18FW6.

DIRECT INTERELECTRODE CAPACITANCES^A

GRID #1 TO PLATE (MAX.)	.0035	pf
INPUT	5.5	pf
OUTPUT	5.0	pf

^AEXTERNAL SHIELD #316 CONNECTED TO PIN 7 (CATHODE).

RATINGS

INTERPRETED ACCORDING TO DESIGN MAXIMUM SYSTEM

HEATER CURRENT ^C	0.100±0.006	AMP.
MAXIMUM PLATE VOLTAGE	150	VOLTS
MAXIMUM GRID #2 SUPPLY VOLTAGE	150	VOLTS
MAXIMUM GRID #2 VOLTAGE	SEE RATING CHART	
MAXIMUM PLATE DISSIPATION	2.5	WATTS
MAXIMUM GRID #2 DISSIPATION	0.6	WATTS
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

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

HEATER VOLTAGE (SERIES OPERATION)	18	VOLTS
HEATER CURRENT ^B (SERIES OPERATION)	0.10	AMP.
PLATE VOLTAGE	100	VOLTS
GRID #3 VOLTAGE	CONNECTED TO CATHODE AT SOCKET	
GRID #2 VOLTAGE	100	VOLTS
CATHODE BIAS RESISTOR	68	OHMS
PLATE CURRENT	11	MA.
GRID #2 CURRENT	4.4	MA.
TRANSCONDUCTANCE	4400	μMHOS
PLATE RESISTANCE (APPROX.)	0.25	MEG OHM
GRID #1 VOLTAGE FOR $g_m = 25 \mu\text{MHOS}$	-20	VOLTS

TUNG-SOL

^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.

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

* 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.