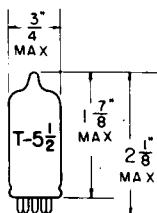


TUNG-SOL

PENTODE
MINIATURE TYPE

GLASS BULB

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

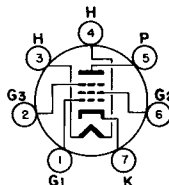
COATED UNIPOTENTIAL CATHODE

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

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

^CHEATER 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.