TRIODE DOUBLE DIODE
MINIATURE TYPE

COATED UNIPOTENTIAL CATHODE
HEATER
18 Volts, 0.10 Amp.
SERIES OPERATION
ANY MOUNTING POSITION

GLASS BULB
MINIATURE SOCKET
7 PIN BASE E1-1
OUTLINE DRAWING
JEDEC 5-2

BOTTOM VIEW
RASING DIAGRAM
JEDEC 76T

THE 1B6E6A 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

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 SERVICABILITY 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.

CONTINUED ON FOLLOWING PAGE
TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A\textsubscript{2} AMPLIFIER

\begin{itemize}
\item PLATE VOLTAGE: 100 VOLTS
\item GRID VOLTAGE: -1 VOLTS
\item PLATE CURRENT: 1.0 MA.
\item PLATE RESISTANCE: 40 000 OHMS
\item TRANSCONDUCTANCE: 1 700 \textmu{}MHO
\item AMPLIFICATION FACTOR: 70
\item AVERAGE DIODE CURRENT, EACH DIODE\textsuperscript{1} WITH 10 VOLTS DC APPLIED: 2.0 MA.
\end{itemize}

\textsuperscript{1} HEATER VOLTAGE SUPPLY VARIATIONS SHALL BE RESTRICTED TO MAINTAIN HEATER CURRENT WITHIN THE SPECIFIED VALUES.

\textsuperscript{2} TEST CONDITION ONLY.

\textsuperscript{3} 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.

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