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6BF8
SEXTUPLE DIODE

The 6BF8 is a miniature sextuple diode suitable for shunt-detector applications in which a number of input signals are encountered.

GENERAL

Electrical

Cathode - Coated Unipotential

Heater Characteristics and Ratings
Heater Voltage, AC or DC* 6.3±0.6 Volts
Heater Current+ 0.45 Amperes

Direct Interelectrode Capacitances:
Plate-Number 1 to Cathode and Heater 2.6 pf
Plate-Number 2 to Cathode and Heater 2.8 pf
Plate-Number 3 to Cathode and Heater 2.6 pf
Plate-Number 4 to Cathode and Heater 4.0 pf
Plate-Number 5 to Cathode and Heater 4.0 pf
Plate-Number 6 to Cathode and Heater 3.8 pf
Plate to All, Each Plate 4.4 pf

Mechanical

Mounting Position - Any
Envelope - T-6 1/2, Glass
Base - E9-1, Small Button 9-Pin
Outline Drawing - EIA 6-2
Maximum Diameter 7/8 Inches
Maximum Over-all Length 2 3/16 Inches
Maximum Seated Height 1 15/16 Inches

TERMINAL CONNECTIONS

Pin 1 - Plate Number 6
Pin 2 - Plate Number 5
Pin 3 - Plate Number 4
Pin 4 - Heater
Pin 5 - Heater
Pin 6 - Cathode
Pin 7 - Plate Number 3
Pin 8 - Plate Number 2
Pin 9 - Plate Number 1

ETR-2186
MAXIMUM RATINGs

Diode-Detector Service - Design-Maximum Values

Peak Inverse Plate Voltage  165 Volts
Peak Plate Current per Plate  11 Milliamperes
DC Output Current per Plate  2.2 Milliamperes
Heater-Cathode Voltage
  Heater Positive with Respect to Cathode  100 Volts
  Heater Negative with Respect to Cathode  100 Volts

Design-Maximum ratings are limiting values of operating and environmental
conditions applicable to a bogey electron tube of a specified type as defined
by its published data and should not be exceeded under the worst probable condi-
tions.

The tube manufacturer chooses these values to provide acceptable service-
ability of the tube, making allowance for the effects of changes in operating
conditions due to variations in the characteristics of the tube under considera-
tion.

The equipment manufacturer should design so that initially and throughout
life no design-maximum value for the intended service is exceeded with a bogey
tube under the worst probable operating conditions with respect to supply-
voltage variation, equipment component variation, equipment control adjustment,
load variation, signal variation, environmental conditions, and variations in
the characteristics of all other electron devices in the equipment.

AVERAGE CHARACTERISTICS

Tube Voltage Drop
  \[ I_b = 5.0 \text{ Milliamperes DC per Plate} \]
  1.4 Volts

* The equipment designer should design the equipment so that the heater voltage
  is centered at the specified bogey value, with heater supply variations re-
  stricted to maintain heater voltage within the specified tolerance.

+ Heater current of a bogey tube at \( E_f = 6.3 \) volts.

* Without external shield.

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