

COMPACTRON DIODE
FOR TV DAMPING DIODE APPLICATIONS

DESCRIPTION AND RATING

The 6BE3 is a compactron, single heater-cathode type diode intended for service as the damping diode in the horizontal deflection circuit of television receivers.

GENERAL

ELECTRICAL

Cathode - Coated Unipotential

Heater Characteristics and Ratings

Heater Voltage, AC or DC*	. . . . .	.6.3±0.6	Volts
Heater Current†	. . . . .	1.2	Amperes
Direct Interelectrode Capacitances, approximate‡			
Cathode to Plate and Heater:			
k to (p + h)	. . . . .	10	pf
Plate to Cathode and Heater:			
p to (k + h)	. . . . .	8.0	pf
Heater to Cathode: (h to k)	. . . . .	3.4	pf

MECHANICAL

Operating Position - Any	
Envelope - T-9, Glass	
Base - E12-70, Button 12-Pin	
Outline Drawing - EIA 9-60	
Maximum Diameter	1.188 Inches
Maximum Over-all Length	2.875 Inches
Maximum Seated Height	2.500 Inches

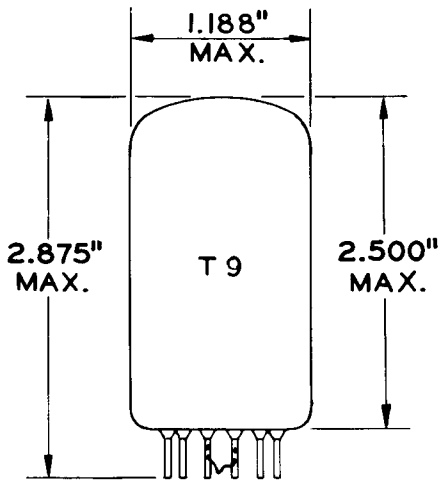
MAXIMUM RATINGS

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 conditions.

The tube manufacturer chooses these values to provide acceptable serviceability of the tube, making allowance for the effects of changes in operating conditions due to variations in the characteristics of the tube under consideration.

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.

PHYSICAL DIMENSIONS

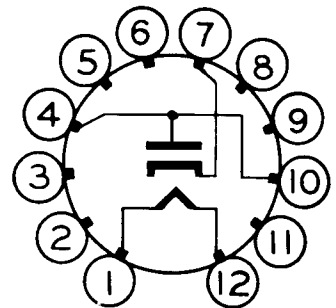


EIA 9-60

TERMINAL CONNECTIONS

- Pin 1 - Heater
- Pin 2 - No Connection
- Pin 3 - No Connection
- Pin 4 - Plate
- Pin 5 - No Connection
- Pin 6 - No Connection
- Pin 7 - Cathode
- Pin 8 - No Connection
- Pin 9 - No Connection
- Pin 10 - Plate
- Pin 11 - No Connection
- Pin 12 - Heater

BASING DIAGRAM



EIA 12BL

MAXIMUM RATINGS (Cont'd)

TV DAMPER SERVICE-DESIGN-MAXIMUM VALUES §

Peak Inverse Plate Voltage.	5000	Volts
Plate Dissipation.	6.5	Watts
Steady-State Peak Plate Current	1200	Milliamperes
DC Output Current	200	Milliamperes
Heater-Cathode Voltage		
Heater Positive with Respect to Cathode		
DC Component	100	Volts
Total DC and Peak.	300	Volts
Heater Negative with Respect to Cathode		
DC Component	900	Volts
Total DC and Peak.	5000	Volts

AVERAGE CHARACTERISTICS

Tube Voltage Drop		
I _b = 350 Milliamperes DC	25	Volts

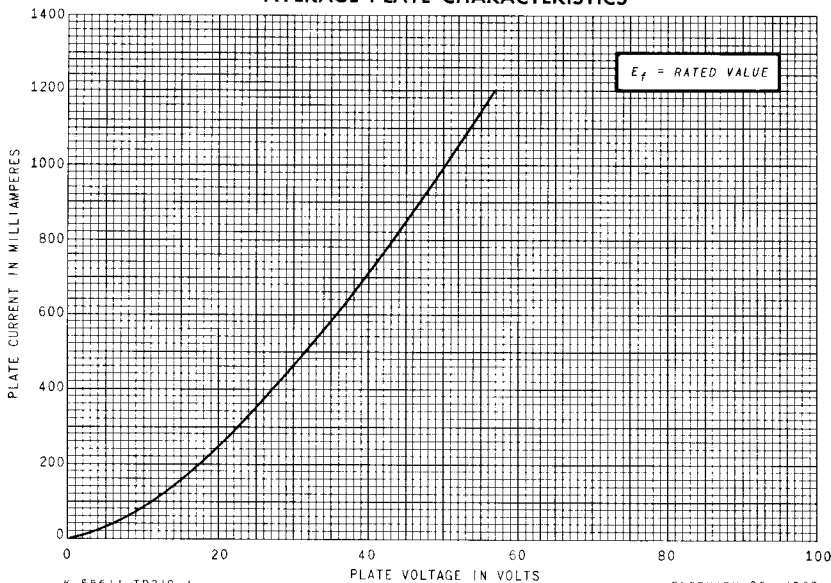
FOOTNOTES

- * The equipment designer should design the equipment so that heater voltage is centered at the specified bogey value, with heater supply variations restricted to maintain heater voltage within the specified tolerance.
- † Heater current of a bogey tube at E_f = 6.3 volts.
- ‡ Without external shield.
- § For operation in a 525-line, 30-frame television system as described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations", Federal Communications Commission. The duty cycle of the voltage pulse must not exceed 15 percent of one scanning cycle.

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AVERAGE PLATE CHARACTERISTICS



RECEIVING TUBE DEPARTMENT
GENERAL ELECTRIC
 Owensboro, Kentucky