Electronic TUBES

6W4-GTA

DIODE

FOR TV DAMPING-DIODE APPLICATIONS

DESCRIPTION AND RATING

The 6W4-GTA is a single heater-cathode type diode for use as the damping diode in the horizontal-deflection circuit of television receivers. It is unilaterally interchangeable with the 6W4-GT.

GENERAL

ELECTRICAL

Cathode—Coated Unipotential

Heater Characteristics and Ratings (Design-Maximum Rating System)

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)	8.0	μμf
Plate to Cathode and Heater: p to (k+h)	6.0	μμf
Heater to Cathode: (h to k)	3.0	μμf

MECHANICAL

Mounting Position—Any
Envelope—T-9, Glass
Base—B5-82, Intermediate-Shell Octal 5-Pin

MAXIMUM RATINGS

TV DAMPER SERVICE—DESIGN-MAXIMUM VALUES§

Peak Inverse Plate Voltage	3950	Volts
Plate Dissipation	4.0	Watts
Steady-State Peak Plate Current	840	Milliamperes
DC Output Current	140	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	800	Volts
Total DC and Peak	3950	Volts

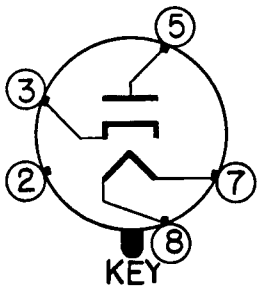
Design-maximum ratings are limiting values of operating and environmental conditions applicable to a bogey tube of a specified type as defined by its published data and should not be exceeded under the worst probable conditions. The tube manufacturer chooses these values to provide acceptable serviceability of the tube, taking responsibility for the effects of changes in operating conditions due to variations in 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, variation in characteristics of all other tubes in the equipment, equipment control adjustment, load variation, signal variation, and environmental conditions.

The tubes and arrangements disclosed herein may be covered by patents of General Electric Company or others. Neither the disclosure of any information herein nor the sale of tubes by General Electric Company conveys any license under patent claims covering combinations of tubes with other devices or elements. In the absence of an express written agreement to the contrary, General Electric Company assumes no liability for patent infringement arising out of any use of the tubes with other devices or elements by any purchaser of tubes or others.

GENERAL ELECTRIC

BASING DIAGRAM

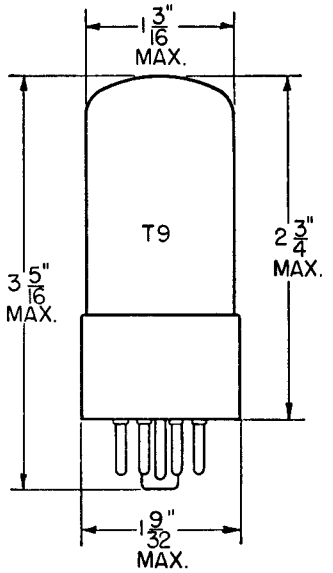


EIA 4CG

TERMINAL CONNECTIONS

Pin 2—No Connection
Pin 3—Cathode
Pin 5—Plate
Pin 7—Heater
Pin 8—Heater

PHYSICAL DIMENSIONS



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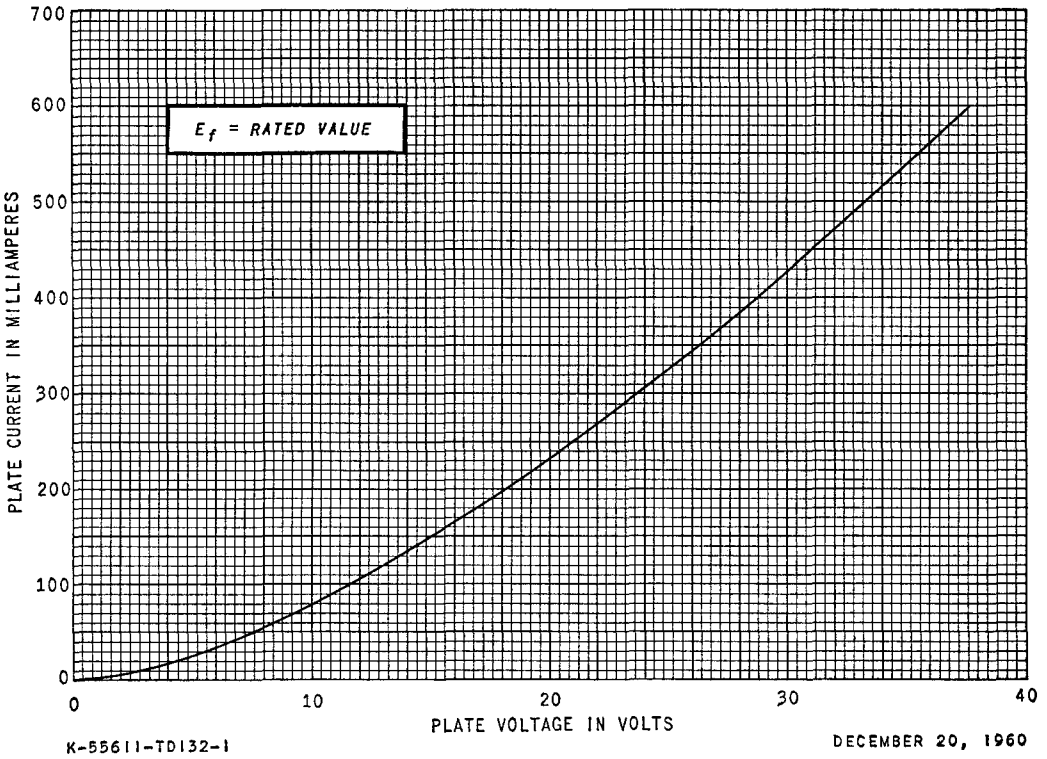
AVERAGE CHARACTERISTICS

Tube Voltage Drop (Ib = 250 Milliamperes DC)	21	Volts

* The equipment designer should design the equipment so that the heater voltage is centered at the specified bogey value, with heater supply variations restricted to maintain heater voltage within the specified tolerance.
† Heater current at bogey heater voltage.
‡ 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.

AVERAGE PLATE CHARACTERISTICS



ELECTRONIC COMPONENTS DIVISION

GENERAL ELECTRIC

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