



# 6DE4 DIODE

## FOR TV DAMPING DIODE APPLICATIONS

### DESCRIPTION AND RATING

The 6DE4 is a single heater-cathode-type diode designed for use as the damping diode in the horizontal-deflection circuit of television receivers.

#### GENERAL

##### ELECTRICAL

Cathode—Coated Unipotential

Heater Voltage, AC or DC.....	6.3 ± 10%	Volts
Heater Current.....	1.6	Amperes
Direct Interelectrode Capacitances, approximate*		
Cathode to Plate and Heater: k to (p+h).....	11.5	μμf
Plate to Cathode and Heater: p to (k+h).....	8.5	μμf
Heater to Cathode: (h to k).....	4.0	μμf

##### MECHANICAL

Mounting Position—Any  
Envelope—T-9, Glass  
Base—B5-85, Short Intermediate-Shell Octal 5-Pin

#### MAXIMUM RATINGS

##### TV DAMPER SERVICE—DESIGN-MAXIMUM VALUES†

Peak Inverse Plate Voltage.....	5000	Volts
Plate Dissipation.....	6.5	Watts
Steady-State Peak Plate Current.....	1100	Milliamperes
DC Output Current.....	175	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

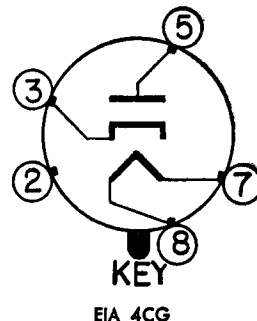
Design-Maximum ratings are limiting values of operating and environmental conditions applicable to a bogey tube of a specified type as defined by its published data and should not be exceeded under the worst probable conditions.

These values are chosen by the tube manufacturer to provide acceptable serviceability of the tube, taking responsibility 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, 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.

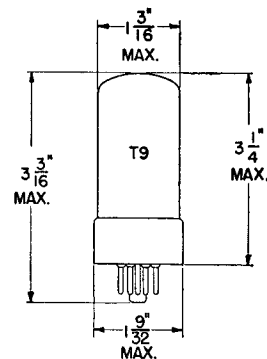
#### BASING DIAGRAM



#### TERMINAL CONNECTIONS

- Pin 2—Internal Connection—Do Not Use
  - Pin 3—Cathode
  - Pin 5—Plate
  - Pin 7—Heater
  - Pin 8—Heater
- Socket terminals 1, 2, 4, and 6 should not be used.

#### PHYSICAL DIMENSIONS



EIA 9-44

### AVERAGE CHARACTERISTICS

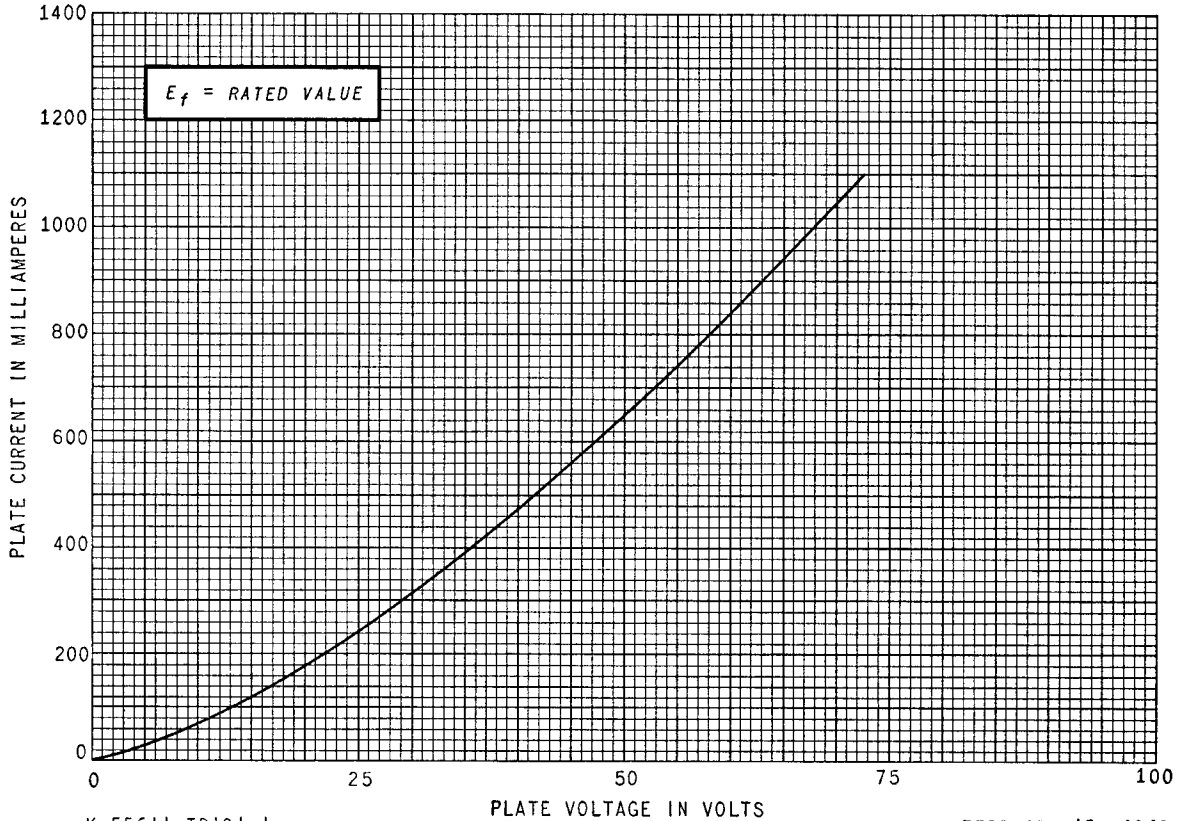
Tube Voltage Drop

$I_b = 350$  Milliamperes DC ..... 32 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.

### AVERAGE PLATE CHARACTERISTICS



K-55611-TD101-1

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**GENERAL**  **ELECTRIC**  
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