

DESCRIPTION AND RATING

The 6AF3 is a miniature, heater-cathode type diode for service as the damping diode in the horizontal-deflection circuit of television receivers. It will withstand high pulse voltages between the heater and cathode and high inverse pulse voltages between the plate and cathode.

GENERAL

ELECTRICAL

Cathode—Coated Unipotential		
Heater Voltage, AC or DC	$6.3 \pm 10\%$	Volts
Heater Current	1.2	Amperes
Direct Interelectrode Capacitances, approximate*		
Cathode to Plate and Heater	9.0	$\mu\mu\text{f}$
Plate to Cathode and Heater	6.0	$\mu\mu\text{f}$
Heater to Cathode	2.8	$\mu\mu\text{f}$

MECHANICAL

Mounting Position—Any
Envelope—T-6½, Glass
Base—E9-1, Small Button 9-Pin

MAXIMUM RATINGS

TV DAMPER SERVICE—DESIGN-MAXIMUM VALUES†

Peak Inverse Plate Voltage	4500	Volts
Plate Dissipation	6.0	Watts
Steady-State Peak Plate Current	750	Milliamperes
DC Output Current	185	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	1000	Volts
Total DC and Peak	4500	Volts
Bulb Temperature at Hottest Point	210	C

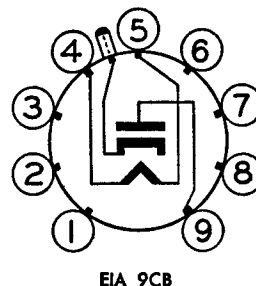
Design-Maximum ratings are limiting values of operating and environmental conditions applicable to a bogey tube of a specified type as defined by its published data, and should not be exceeded under the worst probable conditions.

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 tube 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 tube 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.

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.

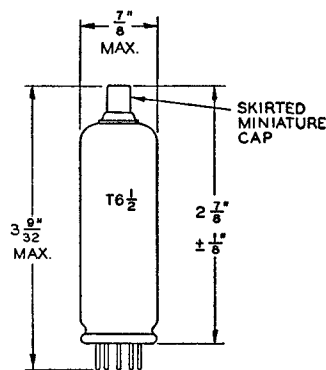
BASING DIAGRAM



TERMINAL CONNECTIONS

- Pin 1—Internal Connection
- Pin 2—Internal Connection
- Pin 3—Internal Connection
- Pin 4—Heater
- Pin 5—Heater
- Pin 6—Internal Connection
- Pin 7—Internal Connection
- Pin 8—Internal Connection
- Pin 9—Plate
- Cap—Cathode

PHYSICAL DIMENSIONS



EIA 6-8

AVERAGE CHARACTERISTICS

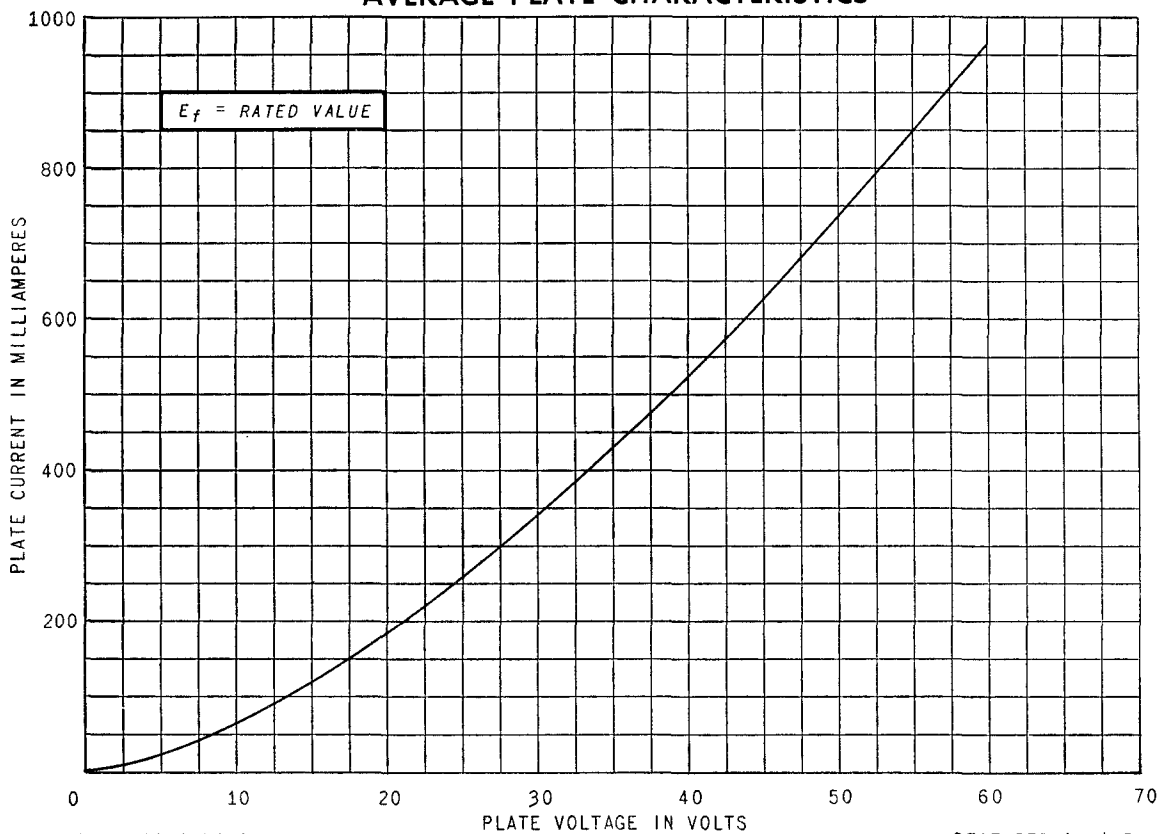
Tube Voltage Drop

$I_b = 340$ Milliamperes DC. 30 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-TD51-1

DECEMBER 1, 1958

ELECTRONIC COMPONENTS DIVISION

GENERAL  **ELECTRIC**

Schenectady 5, N. Y.