

DESCRIPTION AND RATING

The 6AX4-GTB is a single 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. These characteristics make the tube particularly useful in autotransformer deflection systems in which high pulse voltages are applied to the cathode of the damper tube.

The 6AX4-GTB is unilaterally interchangeable with the 6AX4-GT and 6AX4-GTA. It differs from the 6AX4-GTA in having a higher peak inverse plate voltage rating.

GENERAL

ELECTRICAL

Cathode—Coated Unipotential

Heater Voltage, AC or DC.....6.3 Volts

Heater Current.....1.2 Amperes

Direct Interelectrode Capacitances, approximate*

Cathode to Plate and Heater.....8.5 μf

Plate to Cathode and Heater.....5.0 μf

Heater to Cathode.....4.0 μf

MECHANICAL

Mounting Position—Any

Envelope—T-9, Glass

Base—B5-82, Intermediate-Shell Octal 5-Pin

MAXIMUM RATINGS

TV DAMPER SERVICE—DESIGN-MAXIMUM VALUES†

Allowable Heater Voltage.....5.6 to 6.9 Volts

Peak Inverse Plate Voltage.....5000 Volts

Plate Dissipation.....5.3 Watts

Steady-State Peak Plate Current.....1000 Milliamperes

DC Output Current.....165 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

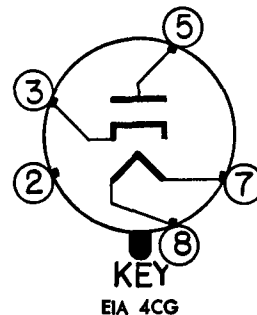
Design-Maximum ratings are limiting values of operating and environmental conditions applicable to a bogey tube of a specified type as defined by its published data, and should not be exceeded under the worst probable conditions.

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 2—No Connection

Pin 3—Cathode

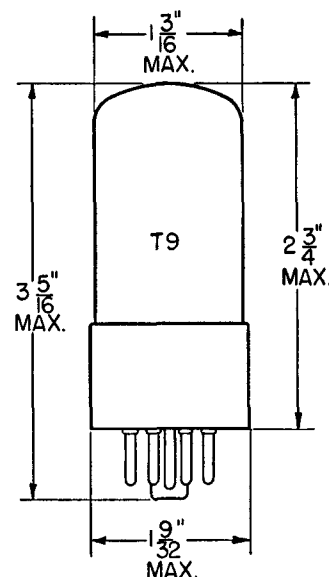
Pin 5—Plate

Pin 7—Heater

Pin 8—Heater

Socket terminals 1, 2, 4, and 6 should not be used.

PHYSICAL DIMENSIONS



EIA 9-11

AVERAGE CHARACTERISTICS

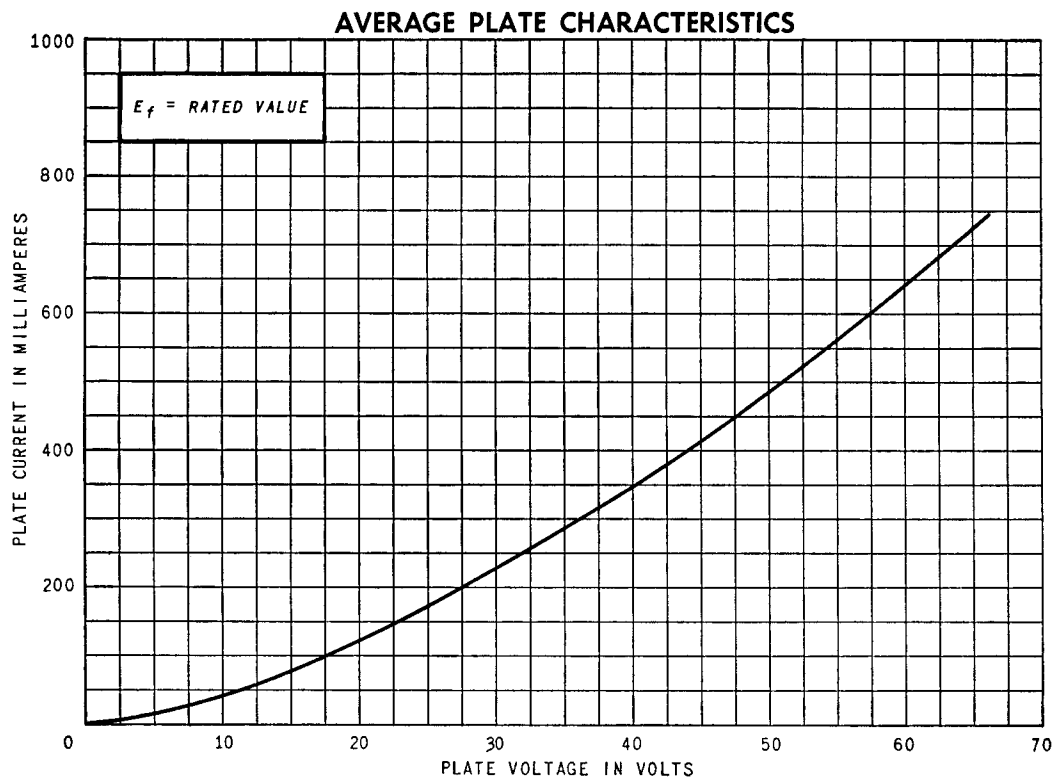
Tube Voltage Drop

$I_b = 250$ 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.

Note: Operation of this tube as a power rectifier is not recommended.



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