

6AX3

DIODE

FOR TV DAMPING DIODE APPLICATIONS

DESCRIPTION AND RATING

The 6AX3 is a COMPACTRON device containing a single heater-cathode type diode. The tube is intended for service as the damping diode in the horizontal-deflection circuit of television receivers.

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) 7.5 pf

Plate to Cathode and Heater: p to (k+h) 5.5 pf

Heater to Cathode: (h to k) 2.8 pf

MECHANICAL

Mounting Position—Any

Envelope—T-9, Glass

Base—E12-70, Button 12-Pin

MAXIMUM RATINGS

TV DAMPER SERVICE—DESIGN-MAXIMUM VALUES §

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

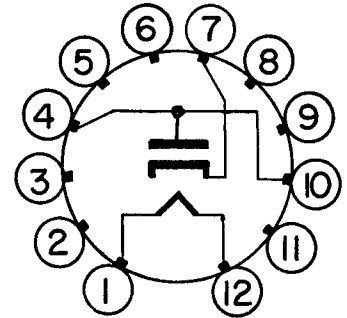
Total DC and Peak 5000 Volts

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 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

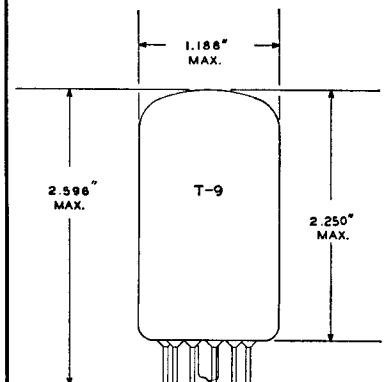


EIA 12BL

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

PHYSICAL DIMENSIONS



AVERAGE CHARACTERISTICS

Tube Voltage Drop

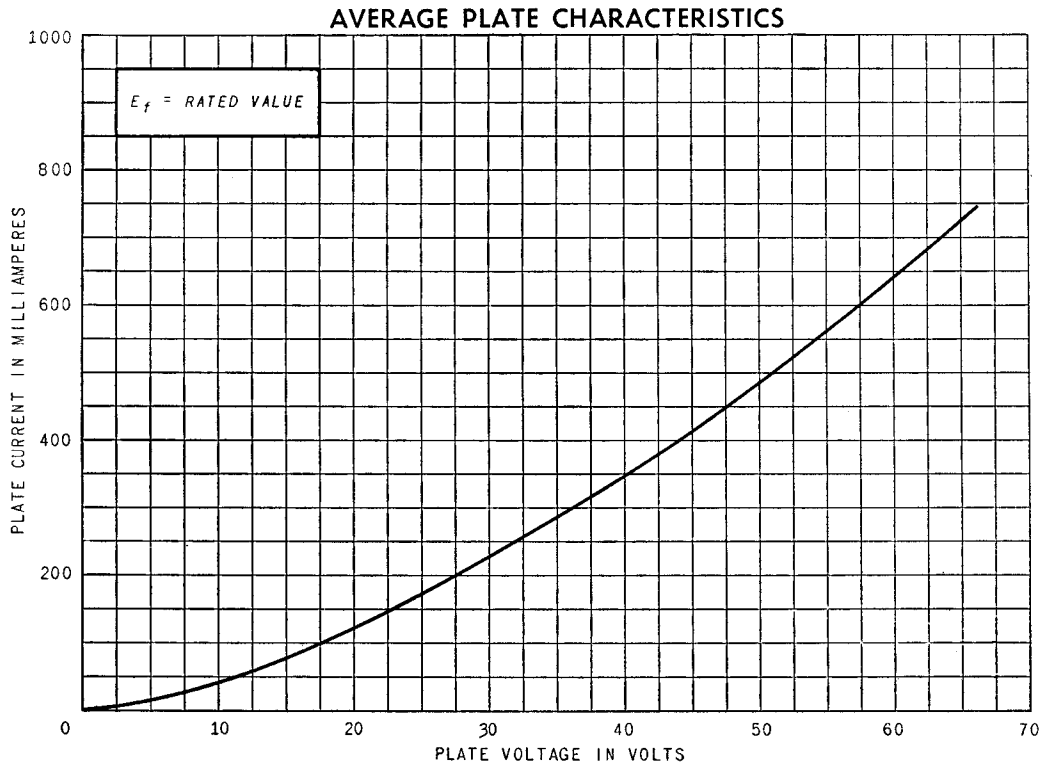
$I_b = 250$ Milliamperes DC. 32 Volts

* The equipment designer shall 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.



ELECTRONIC COMPONENTS DIVISION



Schenectady 5, N. Y.