

FOR TV HIGH-VOLTAGE-RECTIFIER APPLICATIONS

DESCRIPTION AND RATING

The 1H2 is a miniature heater-cathode type diode designed for use in television receivers as the high-voltage rectifier to supply power to the anode of the television picture tube. The 1H2 is primarily intended for use in fly-back types of power supplies.

GENERAL

ELECTRICAL

Cathode—Coated Unipotential	
Heater Voltage, AC or DC.....	1.4 Volts
Heater Current.....	0.55 Ampere
Direct Interelectrode Capacitances, approximate*	
Plate to Heater, Cathode, and Internal Shield.....	1.0 $\mu\mu\text{f}$

MECHANICAL

Mounting Position—Any
Envelope—T-6½, Glass
Base—E9-1, Small Button 9-Pin
Top Cap—Miniature, JETEC No. C1-40

MAXIMUM RATINGS

FLYBACK RECTIFIER SERVICE† DESIGN-MAXIMUM VALUES

Peak Inverse Plate Voltage	
DC Component.....	24000 Volts
Total DC and Peak.....	30000 Volts
Steady-State Peak Plate Current.....	.50 Milliampere
DC Output Current.....	0.5 Milliampere

AVERAGE CHARACTERISTICS

Tube Voltage Drop, approximate	
$I_b = 7.0$ Milliamperes.....	100 Volts

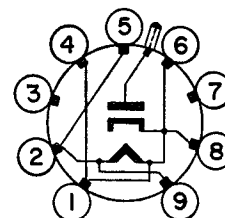
Design-Maximum ratings are limiting values of operating and environmental conditions applicable to a bogey tube of a specified type as defined by its published data, and should not be exceeded under the worst probable conditions.

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



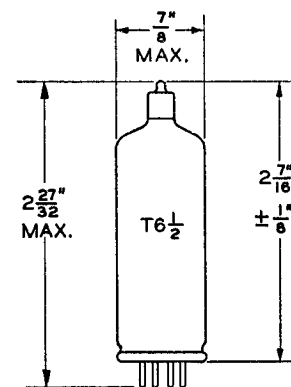
EIA 9LX

TERMINAL CONNECTIONS†

- Pin 1—Heater, Cathode, and Internal Shield
- Pin 2—Heater
- Pin 3—No Connection
- Pin 4—Heater, Cathode, and Internal Shield
- Pin 5—Heater
- Pin 6—Heater, Cathode, and Internal Shield
- Pin 7—No Connection
- Pin 8—Heater, Cathode, and Internal Shield
- Pin 9—Heater
- Cap—Plate

† Socket terminals 3 and 7 may be used as tie points for components at or near filament potential.

PHYSICAL DIMENSIONS

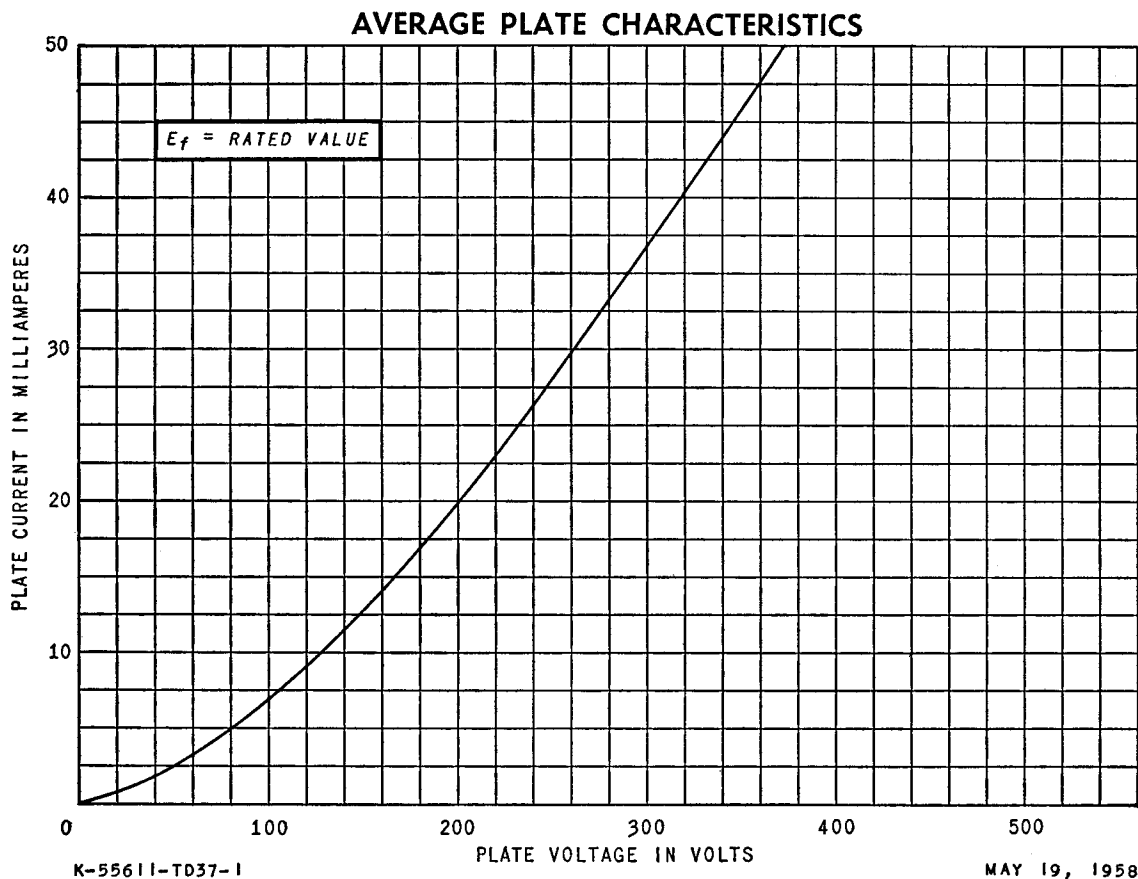


EIA 6-9

* 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: The voltages employed in some television receivers and other high-voltage equipment are sufficiently high that high-voltage rectifier tubes may produce soft x-rays which can constitute a health hazard unless such tubes are adequately shielded. The need for this precaution should be considered in equipment design. Relatively simple shielding should prove adequate.



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