

DESCRIPTION AND RATING

The 1X2-B is a miniature filamentary diode designed for use in television receivers as the high-voltage rectifier to supply power to the anode of the television picture tube. The 1X2-B is intended primarily for use in fly-back types of power supplies. Except for increased peak inverse voltage ratings, the 1X2-B is identical to the 1X2-A.

GENERAL

ELECTRICAL

Cathode—Coated Filament

Filament Voltage, AC or DC 1.25* Volts

Filament Current 0.2 Amperes

Direct Interelectrode Capacitances, approximate†

Plate to Filament 1.0 μf

MECHANICAL

Mounting Position—Any

Envelope—T-6½, Glass

Base—E9-1, Miniature Button 9-Pin

Top Cap—C1-2 or C1-33, Skirted Miniature

MAXIMUM RATINGS

FLYBACK RECTIFIER SERVICE§

DESIGN-CENTER VALUES UNLESS OTHERWISE INDICATED

Peak Inverse Plate Voltage

DC Component 18000 Volts

Total DC and Peak 22000 π Volts

Steady-State Peak Plate Current 45 Milliamperes

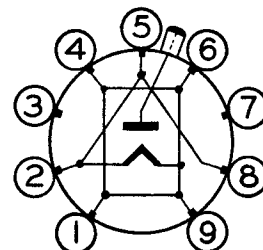
DC Output Current 0.5 Milliamperes

AVERAGE CHARACTERISTICS

Tube Voltage Drop, approximate

$I_b = 7.0$ Milliamperes DC 100 Volts

BASING DIAGRAM



RETMA 9Y

TERMINAL CONNECTIONS

Pin 1—Filament and Internal Shield

Pin 2—Filament

Pin 3—No Connection†

Pin 4—Same as Pin 1

Pin 5—Same as Pin 2

Pin 6—Same as Pin 1

Pin 7—No Connection†

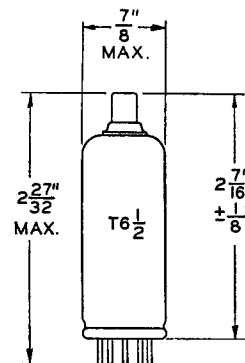
Pin 8—Same as Pin 2

Pin 9—Same as Pin 1

Cap—Plate

† May be used as tie-point for filament dropping resistor or may be connected to filament. Do not connect to any other circuits.

PHYSICAL DIMENSIONS



RETMA 6-7

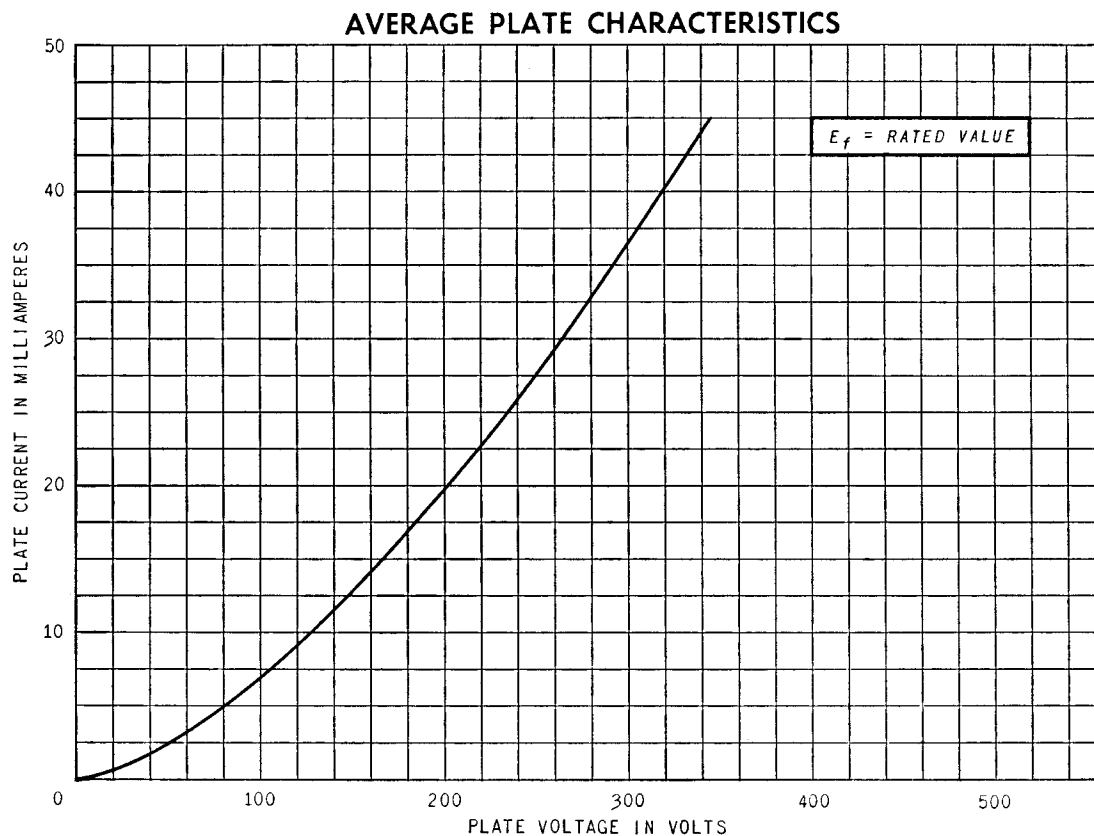
* Under no circumstances should the filament voltage be less than 1.05 volts or more than 1.45 volts.

† 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.

π Value given is to be considered as an Absolute Maximum Rating. In this case, the combined effect of supply voltage variation, manufacturing variation including components in the equipment, and adjustment controls should not cause the rated value to be exceeded.

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.



TUBE DEPARTMENT
GENERAL  **ELECTRIC**
Schenectady 5, N. Y.