

Sept. 10, 1954

Half-Wave Rectifier Type 1X2-B

The 1X2-B is a 9-pin miniature high voltage rectifier designed for use as the high voltage rectifier in television receivers. The 1X2-B may be used either in flyback or rf types of power supply.

GENERAL DATA

Electrical:

Cathode	Coated Filament
Filament	
Voltage	1.25 ac Volts
Current	0.2 Ampere
Direct Interelectrode Capacitances	
Plate to Filament	1.0 $\mu\mu\text{f}$

Mechanical:

Bulb	T-6½
Base	Small-Button Noval 9-pin (JETEC No. E9-1)
Basing	9Y
Mounting Position	Any

FLYBACK RECTIFIER*

Maximum Ratings

Design Center Values

(Unless Otherwise Noted)

Peak Inverse Plate Voltage	22000 abs. max. Volts
Steady State Peak Plate Current	45 max. Ma.
DC Output Current	0.5 max. Ma.
Tube Voltage Drop**	100 Volts

* For operation in a 525-line, 30-frame system as described in "Standards of Good Engineering Practice for Television Broadcast Stations", Federal Communications Commission. The duty cycle of the voltage pulse must not exceed 15% of one scanning cycle.

** Measured with tube conducting 7 ma.

Characteristics and Typical Operation

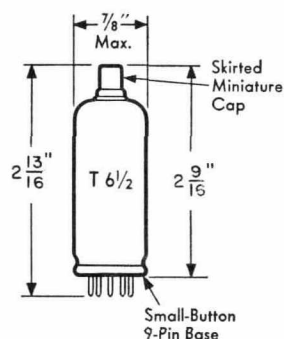
Positive Peak Plate Voltage	18000 Volts
Negative Peak Plate Voltage	2000 Volts
DC Output Voltage (Approx.)	18000 Volts
DC Output Current (Approx.)	100 μa

Notes:

Pins 3 and 7 can be used as a tie point for the filament dropping resistor and high voltage resistor. Do not connect to the low voltage circuits.

Inasmuch as the tube rating permits operation as high as 22000 volts (absolute max.), shielding of the tube for x-ray radiation may be needed. Relatively simple shielding should prove adequate, but the need for this precaution should be considered in equipment design.

When the filament is operated from a pulse-operated or rf power source, the color temperature of the filament may be visually checked in a darkened room by observing the reflection of the incandescent filament upon the surface of the internal shield. This color temperature may then be visually compared with the color temperature obtained when the filament of another 1X2-B is operated from a dc or low-frequency ac supply of 1.25 volts. This provides a convenient method for adjusting the amount of rf excitation to produce 1.25 volts (rms) at the filament terminals.



CE-A556

