



IAX2

# HALF-WAVE VACUUM RECTIFIER

9-PIN MINIATURE TYPE

IAX2

## GENERAL DATA

### Electrical:

Filament, Coated:  
 Voltage . . . . . 1.4 . . . . . ac volts  
 Current . . . . . 0.65 . . . . . amp  
 Direct Interelectrode Capacitance:<sup>o</sup>  
 Plate to filament . . . . . 0.7 max.  $\mu$ f

### Mechanical:

Mounting Position . . . . . Any  
 Maximum Overall Length . . . . . 2-27/32"  
 Seated Length . . . . . 2-7/16"  $\pm$  1/8"  
 Maximum Diameter . . . . . 7/8"  
 Dimensional Outline . . . . . See General Section  
 Bulb . . . . . T-6-1/2  
 Cap . . . . . Skirted Miniature (JETEC No. C1-2 or C1-33)  
 Base . . . . . Small-Button Noval 9-Pin (JETEC No. E9-1)  
 Basing Designation for BOTTOM VIEW . . . . . 9Y

Pin 1 - Filament, Internal Shield		Pin 5 - Same as Pin 2
Pin 2 - Filament		Pin 6 - Same as Pin 1
Pin 3 - No Con- nection		Pin 7 - Same as Pin 3
Pin 4 - Same as Pin 1		Pin 8 - Same as Pin 2
		Pin 9 - Same as Pin 1 Cap - Plate

## PULSED-RECTIFIER SERVICE

### Maximum Ratings, Design-Center Values Except as Noted:

For operation in a 525-line, 30-frame system<sup>□</sup>

PEAK INVERSE PLATE VOLTAGE  
 (Absolute maximum) . . . . . 25000<sup>■</sup> max. volts  
 PEAK PLATE CURRENT . . . . . 11 max. ma  
 AVERAGE PLATE CURRENT . . . . . 1 max. ma

### Typical Operation:

Peak Plate Supply Voltage:  
 Positive pulse value . . . . . 20000 volts  
 Negative pulse value . . . . . 5000 volts  
 DC Output Voltage (Approx.) . . . . . 20000 volts  
 DC Output Current (Approx.) . . . . . 300  $\mu$ amp

- <sup>o</sup> Without external shield.
- <sup>◆</sup> May be connected to one side of filament, or used as a tie point for filament dropping resistor; otherwise do not use.
- <sup>□</sup> As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations", Federal Communications Commission.
- <sup>■</sup> Under no circumstances should this absolute value be exceeded.

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### OPERATING CONSIDERATIONS

*Filament Voltage Adjustment.* When the filament is supplied from an rf source and is at a high dc potential above ground, adjustment of the filament voltage by direct measurement is impractical. To insure that the rated voltage is applied to the filament, a simple method utilizing a visual color match of two incandescent filaments in a darkened room may be used. In this method, the rf filament voltage, obtained from a pulse-power source, is adjusted until the color of this filament matches that of the filament of another IAX2 operated from a dc or low-frequency ac supply of 1.4 volts.

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