

# Half-Wave Vacuum Rectifier

NOVAR TYPE

PRESSURE-WELDED CATHODE COATING

*For Color-TV Damper-Diode Applications*

## ELECTRICAL CHARACTERISTICS

## Bogey Values

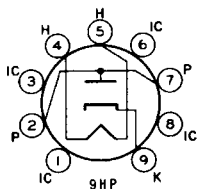
|                                                    |            |     |    |
|----------------------------------------------------|------------|-----|----|
| Heater Voltage (AC or DC) . . . . .                | $E_h$      | 6.3 | V  |
| Heater Current . . . . .                           | $I_h$      | 1.2 | A  |
| Direct Interelectrode Capacitances                 |            |     |    |
| Without external shield                            |            |     |    |
| Plate to cathode and heater . . . . .              | $C_p(k+h)$ | 6.5 | pF |
| Cathode to plate and heater . . . . .              | $C_k(p+h)$ | 9.0 | pF |
| Heater to cathode . . . . .                        | $C_{h-k}$  | 3.0 | pF |
| Instantaneous Tube Voltage Drop . . . . .          | $e_b$      | 16  | V  |
| For instantaneous plate current ( $i_b$ ) = 350 mA |            |     |    |

## MECHANICAL CHARACTERISTICS

|                                  |                                                            |
|----------------------------------|------------------------------------------------------------|
| Operating Position . . . . .     | Any                                                        |
| Type of Cathode . . . . .        | Coated Unipotential                                        |
| Maximum Overall Length . . . . . | 3.005 in                                                   |
| Maximum Seated Length . . . . .  | 2.625 in                                                   |
| Maximum Diameter . . . . .       | 1.188 in                                                   |
| Dimensional Outline . . . . .    | See General Section                                        |
| Envelope . . . . .               | T9                                                         |
| Base . . . . .                   | Small-Button Novar 9-Pin with Exhaust Tip<br>(JEDEC E9-89) |

## TERMINAL DIAGRAM (Bottom View)

- Pin 1 - Do Not Use
- Pin 2 - Plate
- Pin 3 - Do Not Use
- Pin 4 - Heater
- Pin 5 - Heater
- Pin 6 - Do Not Use
- Pin 7 - Plate
- Pin 8 - Do Not Use
- Pin 9 - Cathode



## DESIGN-MAXIMUM RATINGS

*For operation as a Damper Tube in Black-and-White TV  
Receivers utilizing a 525-line, 30-frame system*

|                                      |              |                                                              |            |
|--------------------------------------|--------------|--------------------------------------------------------------|------------|
| Peak Inverse Plate Voltage . . . . . | $-e_{bm}$    | 5500 <sup>a</sup>                                            | V          |
| Heater-Cathode Voltage               |              |                                                              |            |
| Peak . . . . .                       | $e_{hkm}$    | $\left\{ \begin{array}{l} +300 \\ -5500 \end{array} \right.$ | <br>V<br>V |
| Average <sup>b</sup> . . . . .       | $E_{hk(av)}$ | $\left\{ \begin{array}{l} +100 \\ -900 \end{array} \right.$  | <br>V<br>V |
| Heater Voltage (AC or DC) . . . . .  | $E_h$        | 5.7 to 6.9                                                   | V          |



# 6CL3

## Plate Current

|                                      |             |      |    |
|--------------------------------------|-------------|------|----|
| Peak. . . . .                        | $i_{bm}$    | 1300 | mA |
| Average <sup>b</sup> . . . . .       | $I_{b(av)}$ | 250  | mA |
| Plate Dissipation . . . . .          | $P_b$       | 8.5  | W  |
| Envelope Temperature. . . . .        | $T_E$       | 220  | °C |
| At hottest point on envelope surface |             |      |    |

<sup>a</sup> This rating is applicable when the duration of the voltage pulse does not exceed 15% of one horizontal scanning cycle. In a 525-line, 30-frame system, 15% of one horizontal scanning cycle is 10  $\mu$ s.

<sup>b</sup> Measured with a dc meter.

## OPERATING CONSIDERATIONS

Socket terminals 1, 3, 6, and 8 should not be used as tie points for external-circuit components. It is recommended that these socket tabs be removed to reduce the possibility of arc-over and to minimize leakage.

