Half-Wave Rectifier

9-Pin Miniature Type

\[ i_{bm} = 1200 \text{ max. mA} \quad P_b = 4.75 \text{ max. W} \]

For Black-and-White and Small-Screen 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:

- Plate to cathode and heater \( c_{p(k+h)} \) 12.0 pF
- Cathode to plate and heater \( c_{k(p+h)} \) 9.5 pF
- Heater to cathode \( c_{hk} \) 2.8 pF

Instantaneous Tube Voltage

Drop for instantaneous plate current \( i_b = 350 \text{ mA} \). \( e_b \) 16 V

**MECHANICAL CHARACTERISTICS**

Maximum Overall Length \( l_m \) 3.125 in (79.37 mm)
Maximum Seated Length \( l_{sm} \) 2.875 in (73.02 mm)
Maximum Diameter \( d_m \) 0.875 in (22.22 mm)

Envelope. JEDEC Designation 6-1/2

Base. Small-Button Noval 9-Pin JEDEC Designation E9-1

Terminal Connections

(See TERMINAL DIAGRAM) JEDEC Designation 9RX

Type of Cathode. Coated Unipotential
Operating Position. Any

**MAXIMUM RATINGS - Design-Maximum Values**

For operation as a Damper Tube in TV Receivers utilizing a 525-line, 30-frame system.

Peak Inverse Plate Voltage. \( -e_{bm} \) 5000 V

Heater-Cathode Voltage:

\[ e_{hk} \]

\[ \begin{align*}
+300 & \quad \text{V} \\
-5000 & \quad \text{V}
\end{align*} \]
Average $E_{hk(\text{av})}$ \[\begin{align*}
+100 & \text{ V} \\
-900 & \text{ V}
\end{align*}\]
Heater Voltage, ac or dc $E_h$ 5.7 to 6.9 V

**Plate Current:**
- Peak $i_{bm}$ 1200 mA
- Average $I_b(\text{av})$ 250 mA

**Plate Dissipation** $P_b$ 4.75 W

**Envelope Temperature (at hottest point on envelope surface)** $T_E$ 220 °C

* Measured without external shield in accordance with the current issue of EIA Standard RS-191.
* As defined in the current issue of EIA Standard RS-239.
* As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations", Federal Communications Commission.
* 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 µs.
* Measured with a dc meter.

**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 - Plate
Pin 7 - Do Not Use
Pin 8 - Do Not Use
Pin 9 - Cathode

**OPERATING CONSIDERATIONS**

Socket terminals 1, 3, 7, 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.