Half-Wave Vacuum Rectifier
Novar Type
For Color-TV Damper-Diode Applications

ELECTRICAL CHARACTERISTICS - Bogey Values
Heater Voltage, ac or dc ........ \( E_h \) 6.3 \( V \)
Heater Current .................. \( I_h \) 1.8 \( A \)
Direct Interelectrode Capacitances:
Plate to cathode and heater . \( C_{p(k+h)} \) 13 \( pF \)
Cathode to plate and heater . \( C_{k(p+h)} \) 16 \( pF \)
Heater to cathode .............. \( C_{h-k} \) 4.0 \( pF \)

Instantaneous Tube Voltage
Drop for instantaneous plate current (\( i_p \)) = 700 mA ... \( e_b \) 25 \( V \)

MECHANICAL CHARACTERISTICS
Maximum Overall Length ......... 3.380 in (85.85 mm)
Maximum Seated Length .......... 3.000 in (76.20 mm)
Maximum Diameter ............... 1.188 in (30.17 mm)
Envelope ........................ JEDEC T9
Base \(^b\) ................... Small-Button Novar 9-Pin with Exhaust Tip
(JEDEC E9-89)
Terminal Diagram ................. JEDEC 9HP
Type of Cathode ................ Coated Unipotential
Operating Position .............. Any

MAXIMUM RATINGS — Design-Maximum Values \(^c\)

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

Peak Inverse Plate Voltage, \(-e_{bm}\) 5500\(^d\) \( V \)
Heater-Cathode Voltage:

Peak .......................... \( e_{hkm} \) \{ +300 \( V \)
Average \(^e\) .................. \( E_{hk(auv)} \) \{ +100 \( V \)

Heater Voltage, ac or dc .... \( E_h \) 5.7 to 6.9 \( V \)
Plate Current:

Peak .......................... \( i_{bm} \) 2100 \( mA \)
Average \(^e\) .................. \( I_{b(auv)} \) 350 \( mA \)
Plate Dissipation ............. \( P_b \) 6.5 \( W \)
Envelope Temperature (at hottest point on envelope surface) .... \( T_E \) 220 \( ^\circ C \)

RCA Electronic Components
DATA 12-68
a Measured without external shield in accordance with the current issue of EIA Standard RS-191.
b Designed to mate with Novar 9-Contact Socket generally available from your local RCA Distributor.
c As defined in the current issue of EIA Standard RS-239.
d 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.
e 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 the socket tabs be removed to reduce the possibility of arc-over and to minimize leakage.

TERMINAL DIAGRAM (Bottom View)

![Terminal Diagram](image)

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