

Half-Wave Vacuum Rectifier

Novar Type

For Black-and-White-TV Damper Diode Applications

ELECTRICAL CHARACTERISTICS – Bogy Values

Heater Voltage, ac or dc E_h		6.3	V
Heater Current I_h		1.2	A
Direct Interelectrode Capacitances: ^a			
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_{hk}	3.0	pF
Instantaneous Tube Voltage Drop for instantaneous plate current ($i_b = 350$ mA)	e_b	16	V

MECHANICAL CHARACTERISTICS

Maximum Overall Length (l_m)	3.410in.(86.61 mm)
Maximum Seated Length (l_{sm})	3.030in.(76.96 mm)
Maximum Diameter (d_m)	1.188in.(30.1 mm)
Envelope	JEDEC Designation T9
Base ^b	Small-Button Novar 9-Pin with Exhaust Tip (JEDEC Designation E9-89)
Terminal Connections (See <i>TERMINAL DIAGRAM</i>) JEDEC Designation 9HP	
Type of Cathode	Coated Unipotential
Operating Position	Any

MAXIMUM RATINGS – Design-Maximum Values^c

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

Peak Inverse Plate Voltage . . . $-e_{bm}$	5200 ^e	V
Heater-Cathode Voltage:		
Peak e_{hkm}	$\left\{ \begin{array}{l} + 300 \\ - 5200 \end{array} \right.$	V
		V
Average ^f $E_{hk(av)}$	$\left\{ \begin{array}{l} + 100 \\ - 900 \end{array} \right.$	V
		V
Heater Voltage E_h	5.7 to 6.9	V

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Plate Current:

Peak	i_{bm}	1200	mA
Average ^f	$I_{b(av)}$	250	mA
Plate Dissipation	P_b	6.5	W
Envelope Temperature (at hot-test point on envelope surface)	T_E	220	°C

^aMeasured without external shield in accordance with the current issue of EIA Standard RS-191.

^bDesigned to mate with Novar 9-Contact Socket generally available from your local RCA Distributor.

^cAs defined in the current issue of EIA Standard RS-239.

^dAs described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations", Federal Communications Commission.

^eThis rating is applicable when the duration of the voltage pulse does not exceed 15% of one horizontal scanning cycle. In a 52-line, 30-frame system, 15% on one horizontal scanning cycle is 10 μ s.

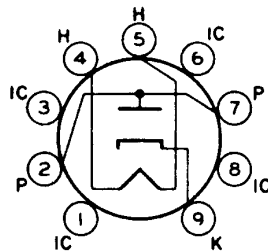
^fMeasured with a dc meter.

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.

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



JEDEC 9HP