Half-Wave Vacuum Rectifier

Novar Type

For Black-and-White-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:[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 *TERMINAL DIAGRAM*) . . . . . 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}	+300 -5200	V V
Average[f]	$E_{hk(av)}$	+100 -900	V V
Heater Voltage	E_h	5.7 to 6.9	V

Plate Current:			
Peak	i_{bm}	1200	mA
Average[f]	$I_{b(av)}$	250	mA
Plate Dissipation	P_b	6.5	W
Envelope Temperature (at hottest point on envelope surface)	T_E	220	°C

[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]As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations", Federal Communications Commission.

[e]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% on one horizontal scanning cycle is 10 μs.

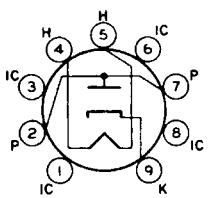
[f]Measured with a dc meter.

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.

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