Half-Wave Vacuum Rectifier

NOVAR TYPE

- **Top Cap Cathode Connection**
- **Pressure-Welded Cathode Coating**
- **RCA Dark Heater**
- **Voltage Drop: Eb = 25V for I_b = 800 mA**

ELECTRICAL CHARACTERISTICS – Bogey Values

Heater Voltage, ac or dc	E_h	6.3	V
Heater Current	I_h	2.3	A
Direct Interelectrode Capacitances:[a]			
Plate to cathode and heater	$c_{p(k+h)}$	17.0	pF
Cathode to plate and heater	$c_{k(p+h)}$	13.0	pF
Heater to cathode	c_{h-k}	4.4	pF
Instantaneous Tube Voltage Drop for instantaneous plate current (i_b) = 800 mA	e_b	25	V

MECHANICAL CHARACTERISTICS

Maximum Overall Length	3.850 in (97.79 mm)
Maximum Seated Length	3.470 in (88.1 mm)
Maximum Diameter	1.188 in (30.1 mm)
Envelope	JEDEC T9
Top Cap	Small embossed (JEDEC C1-2, C1-3 or C1-33)
Base[b]	Small-Button Novar 9-Pin with Exhaust Tip (JEDEC E9-89)
Terminal Diagram	JEDEC 9GD
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	$-e_{bm}$	6500[d]	V
Heater-Cathode Voltage:			
Peak	e_{hkm}	+300 -6500	V V
Average[e]	$E_{hk(av)}$	+100 -900	V V

Heater Voltage, ac or dc	E_h	5.7 to 6.9	V
Plate Current:			
Peak	i_{bm}	1800	mA
Average[e]	$I_{b(av)}$	400	mA
Plate Dissipation	P_b	11.0	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-191B.

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-239A.

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.

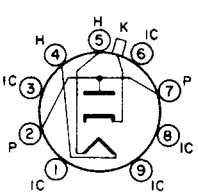
e Measured with a dc meter.

OPERATING CONSIDERATIONS

Socket terminals 1, 3, 6, 8 and 9 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.

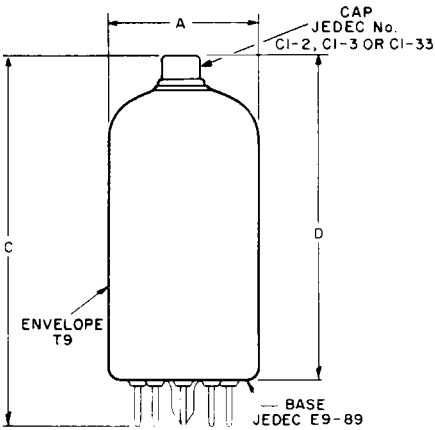
TERMINAL DIAGRAM – JEDEC 9GD (Bottom View)

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 - Do Not Use
Cap - Cathode

DIMENSIONAL OUTLINE



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DIMENSION	INCHES			MILLIMETERS		
	Min.	Nom.	Max.	Min.	Nom.	Max.
A	1.062*	–	1.188	27.0*	–	30.1
C	–	–	3.850	–	–	97.79
D	–	–	3.470	–	–	88.1
MILLIMETER DIMENSION DERIVED FROM INCH DIMENSION						

*Applies to the minimum diameter except in the area of the seal.