

# 6CL3

## Half-Wave Vacuum Rectifier

NOVAR TYPE

PRESSURE-WELDED CATHODE COATING

*For Color-TV Damper-Diode Applications*

### ELECTRICAL CHARACTERISTICS

Bogey Values

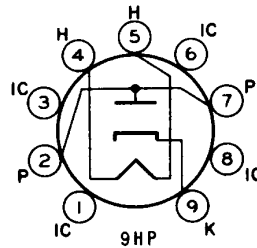
Heater Voltage (AC or DC) . . . . .	$E_h$	6.3	V
Heater Current . . . . .	$I_h$	1.2	A
<b>Direct Interelectrode Capacitances</b>			
Without external shield			
Plate to cathode and heater. . . . .	$C_p(k+h)$	6.5	pF
Cathode to plate and heater. . . . .	$C_k(p+h)$	9.0	pF
Heater to cathode. . . . .	$C_{h-k}$	3.0	pF
<b>Instantaneous Tube Voltage Drop. . . . .</b>	$e_b$	16	V
For instantaneous plate current ( $i_b$ ) = 350 mA			

### MECHANICAL CHARACTERISTICS

Operating Position . . . . .	Any
Type of Cathode. . . . .	Coated Unipotential
Maximum Overall Length . . . . .	3.005 in
Maximum Seated Length. . . . .	2.625 in
Maximum Diameter . . . . .	1.188 in
Dimensional Outline. . . . .	See <i>General Section</i>
Envelope . . . . .	T9
Base . . . . .	Small-Button Novar 9-Pin with Exhaust Tip (JEDEC E9-89)

### 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



### DESIGN-MAXIMUM RATINGS

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

Peak Inverse Plate Voltage . . . . .	$-e_{bm}$	5500 <sup>a</sup>	V											
<b>Heater-Cathode Voltage</b>														
Peak . . . . .	$e_{hkm}$	<table border="0" style="display: inline-table; vertical-align: middle;"> <tr><td style="font-size: 2em;">{</td><td>+300</td><td>V</td></tr> <tr><td></td><td>-5500</td><td>V</td></tr> <tr><td></td><td>+100</td><td>V</td></tr> <tr><td></td><td>-900</td><td>V</td></tr> </table>	{	+300	V		-5500	V		+100	V		-900	V
{	+300		V											
	-5500		V											
	+100		V											
	-900	V												
Average <sup>b</sup> . . . . .	$E_{hk(av)}$													
Heater Voltage (AC or DC). . . . .	$E_h$	5.7 to 6.9	V											



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## Plate Current

Peak . . . . .	$i_{bm}$	1300	mA
Average <sup>b</sup> . . . . .	$I_{b(av)}$	250	mA
Plate Dissipation . . . . .	$P_b$	8.5	W
Envelope Temperature. . . . .	$T_E$	220	°C

At hottest point on envelope surface

<sup>a</sup> 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  $\mu$ s.

<sup>b</sup> 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.

