

CLL4099  
THRU  
CLL4125

LOW NOISE ZENER DIODE  
6.8 VOLTS THRU 47 VOLTS  
500mW, 5% TOLERANCE



SOD-80 CASE

**Central**<sup>TM</sup>  
**Semiconductor Corp.**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CLL4099 Series types are high quality Silicon Zener Diodes designed for low leakage, low current and low noise applications.

**Marking code: Cathode Band**

**MAXIMUM RATINGS:**

Power Dissipation (@T<sub>A</sub>=25°C)

Operating and Storage Temperature

**SYMBOL**

P<sub>D</sub>

T<sub>J</sub>, T<sub>stg</sub>

500

-65 to +200

**UNIT**

mW

°C

**ELECTRICAL CHARACTERISTICS:** (T<sub>A</sub>=25°C) V<sub>F</sub>=1.0V MAX @ I<sub>F</sub>=200mA FOR ALL TYPES)

TYPE NO.	ZENER VOLTAGE			TEST CURRENT	MAXIMUM ZENER IMPEDANCE	MAX REVERSE LEAKAGE CURRENT		MAXIMUM ZENER CURRENT	MAXIMUM NOISE DENSITY
	V <sub>Z</sub> @ I <sub>ZT</sub>			I <sub>ZT</sub>	Z <sub>ZT</sub> @ I <sub>ZT</sub>	I <sub>R</sub> @ V <sub>R</sub>		I <sub>ZM</sub>	N <sub>D</sub> @ I <sub>ZT</sub>
	MIN	NOM	MAX						
	V	V	V	µA	Ω	µA	V	mA	µV/√Hz
CLL4099*	6.460	6.8	7.140	250	200	10	5.2	35.0	40
CLL4100*	7.125	7.5	7.865	250	200	10	5.7	31.8	40
CLL4101*	7.790	8.2	8.610	250	200	1.0	6.3	29.0	40
CLL4102*	8.265	8.7	9.135	250	200	1.0	6.7	27.4	40
CLL4103*	8.645	9.1	9.555	250	200	1.0	7.0	26.2	40
CLL4104*	9.500	10	10.50	250	200	1.0	7.6	24.8	40
CLL4105*	10.45	11	11.55	250	200	0.05	8.5	21.6	40
CLL4106*	11.40	12	12.60	250	200	0.05	9.2	20.4	40
CLL4107*	12.35	13	13.65	250	200	0.05	9.9	19.0	40
CLL4108*	13.30	14	14.70	250	200	0.05	10.7	17.5	40
CLL4109*	14.25	15	15.75	250	100	0.05	11.4	16.3	40
CLL4110*	15.20	16	16.80	250	100	0.05	12.2	15.4	40
CLL4111*	16.15	17	17.85	250	100	0.05	13.0	14.5	40
CLL4112*	17.10	18	18.90	250	100	0.05	13.7	13.2	40
CLL4113*	18.05	19	19.95	250	150	0.05	14.5	12.5	40
CLL4114*	19.00	20	21.00	250	150	0.01	15.2	11.9	40
CLL4115*	20.90	22	23.10	250	150	0.01	16.8	10.8	40

\* Available on special order only, please consult factory

R3 ( 21-August 2001)

**LOW NOISE ZENER DIODE  
6.8 VOLTS THRU 47 VOLTS  
500mW, 5% TOLERANCE**

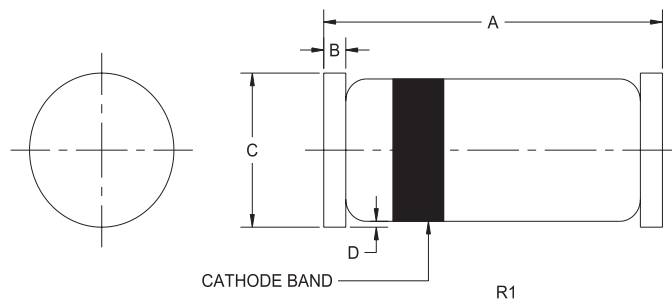
**ELECTRICAL CHARACTERISTICS:**

( $T_A=25^\circ\text{C}$ )  $V_F=1.0\text{V MAX @ } I_F=200\text{mA}$  FOR ALL TYPES)

TYPE NO.	ZENER VOLTAGE			TEST CURRENT	MAXIMUM ZENER IMPEDANCE	MAX REVERSE LEAKAGE CURRENT		MAXIMUM ZENER CURRENT	MAXIMUM NOISE DENSITY
	$V_Z @ I_{ZT}$			$I_{ZT}$	$Z_{ZT} @ I_{ZT}$	$I_R @ V_R$		$I_{ZM}$	$N_D @ I_{ZT}$
	MIN	NOM	MAX						
	V	V	V	$\mu\text{A}$	$\Omega$	$\mu\text{A}$	V	mA	$\mu\text{V}/\sqrt{\text{Hz}}$
CLL4116*	22.80	24	25.20	250	150	0.01	18.3	9.9	40
CLL4117*	23.75	25	26.25	250	150	0.01	19.0	9.5	40
CLL4118*	25.65	27	28.35	250	150	0.01	20.5	8.8	40
CLL4119*	26.60	28	29.40	250	200	0.01	21.3	8.5	40
CLL4120*	28.50	30	31.50	250	200	0.01	22.8	7.9	40
CLL4121*	31.35	33	34.65	250	200	0.01	25.1	7.2	40
CLL4122*	34.20	36	37.80	250	200	0.01	27.4	6.6	40
CLL4123*	37.05	39	40.95	250	200	0.01	29.7	6.1	40
CLL4124*	40.85	43	45.15	250	250	0.01	32.7	5.5	40
CLL4125*	44.65	47	49.35	250	250	0.01	35.8	5.1	40

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**SOD-80 CASE - MECHANICAL OUTLINE**



SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.130	0.146	3.30	3.71
B	0.016		0.41	
C (DIA)	0.051	0.067	1.30	1.70
D	-	0.004	-	0.10

**MARKING CODE: CATHODE BAND**

SOD-80 (REV:R1)

R3 ( 21-August 2001)