

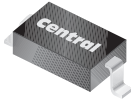
**CMDZ1L8 THRU CMDZ47L**

**SURFACE MOUNT SILICON  
LOW LEVEL ZENER DIODE  
250mW, 1.8 THRU 47 VOLTS  
±5% TOLERANCE**



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**SUPERmini™**



**SOD-323 CASE**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMDZ1L8 Series Low Level Silicon Zener Diode is a high quality voltage regulator, manufactured in a SUPERmini™ surface mount package, designed for applications requiring a low operating current, low leakage, and a sharp knee.

**MARKING: SEE MARKING CODES ON ELECTRICAL CHARACTERISTICS TABLE**

**MAXIMUM RATINGS:** ( $T_A=25^\circ\text{C}$ )

Power Dissipation  
Operating and Storage Junction Temperature  
Thermal Resistance

**SYMBOL**

SYMBOL	UNITS
$P_D$	mW
$T_J, T_{stg}$	$^\circ\text{C}$
$\theta_{JA}$	$^\circ\text{C/W}$

**ELECTRICAL CHARACTERISTICS:** ( $T_A=25^\circ\text{C}$ )  $V_F=0.9\text{V MAX @ } I_F=10\text{mA}$  (for all types)

TYPE	ZENER VOLTAGE			TEST CURRENT	MAXIMUM ZENER IMPEDANCE	MAXIMUM REVERSE CURRENT		MAXIMUM TEMPERATURE COEFFICIENT	MARKING CODE
	$V_Z @ I_{ZT}$					$I_{ZT}$	$Z_{ZT} @ I_{ZT}$		
	MIN V	NOM V	MAX V	$\mu\text{A}$	$\Omega$			$\mu\text{A}$	
CMDZ1L8	1.710	1.8	1.890	500	1200	25	1.0	-0.085	7N
CMDZ2L0	1.900	2.0	2.100	500	1100	25	1.0	-0.080	8N
CMDZ2L2	2.090	2.2	2.310	500	1000	25	1.0	-0.065	9N
CMDZ2L4	2.280	2.4	2.520	500	900	25	1.0	-0.060	AP
CMDZ2L5	2.375	2.5	2.625	500	900	10	1.0	-0.060	BP
CMDZ2L7	2.565	2.7	2.835	500	900	10	1.0	$\pm 0.055$	CP
CMDZ2L8	2.660	2.8	2.940	500	900	10	1.0	$\pm 0.055$	DP
CMDZ3L0	2.850	3.0	3.150	500	900	5.0	1.0	$\pm 0.055$	EP
CMDZ3L3	3.135	3.3	3.465	500	900	5.0	1.0	$\pm 0.055$	FP
CMDZ3L6	3.420	3.6	3.780	500	900	5.0	1.0	$\pm 0.030$	GP
CMDZ3L9	3.705	3.9	4.095	500	900	5.0	1.0	$\pm 0.030$	HP
CMDZ4L3	4.085	4.3	4.515	500	900	5.0	1.0	$\pm 0.030$	JP
CMDZ4L7	4.465	4.7	4.935	500	750	1.0	1.5	$\pm 0.030$	KP
CMDZ5L1	4.845	5.1	5.355	500	400	1.0	1.5	$\pm 0.030$	LP
CMDZ5L6	5.320	5.6	5.880	500	325	1.0	2.0	+0.038	NP
CMDZ6L2	5.890	6.2	6.510	500	90	1.0	2.0	+0.045	OP
CMDZ6L8	6.460	6.8	7.140	500	60	1.0	3.5	+0.050	PP
CMDZ7L5	7.125	7.5	7.875	500	60	1.0	3.5	+0.058	QP
CMDZ8L2	7.790	8.2	8.610	500	60	1.0	6.0	+0.062	RP
CMDZ9L1	8.645	9.1	9.555	500	60	1.0	6.0	+0.068	SP
CMDZ10L	9.50	10	10.50	500	80	1.0	8.0	+0.075	TP
CMDZ11L	10.45	11	11.55	500	80	1.0	8.0	+0.076	UP
CMDZ12L	11.40	12	12.60	500	80	1.0	10.5	+0.077	VP
CMDZ13L	12.35	13	13.65	500	80	1.0	10.5	+0.079	XP
CMDZ15L	14.25	15	15.75	500	80	1.0	11.5	+0.082	YP

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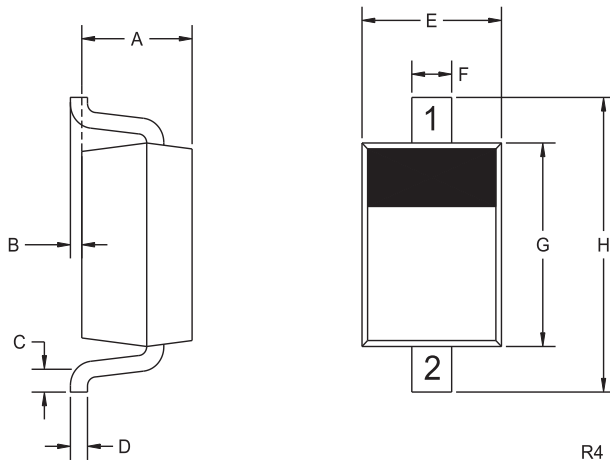


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**ELECTRICAL CHARACTERISTICS - Continued:** ( $T_A=25^\circ\text{C}$ )  $V_F=0.9\text{V Max @ } I_F=10\text{mA}$  (for all types)

TYPE	ZENER VOLTAGE			TEST CURRENT $I_{ZT}$	MAXIMUM ZENER IMPEDANCE $Z_{ZT} @ I_{ZT}$	MAXIMUM REVERSE CURRENT		MAXIMUM TEMPERATURE COEFFICIENT $\theta_{VZ}$	MARKING CODE
	$V_Z @ I_{ZT}$					$I_R @ V_R$	$\mu\text{A}$		
	MIN V	NOM V	MAX V	mA	$\Omega$			%/°C	
CMDZ16L	15.20	16	16.80	500	80	1.0	14	+0.083	ZP
CMDZ18L	17.10	18	18.90	500	80	1.0	16	+0.085	1P
CMDZ20L	19.00	20	21.00	500	100	1.0	18	+0.086	2P
CMDZ22L	20.90	22	23.10	500	100	1.0	20	+0.087	3P
CMDZ24L	22.80	24	25.20	500	120	1.0	22	+0.088	4P
CMDZ27L	25.65	27	28.35	500	150	1.0	24	+0.090	5P
CMDZ30L	28.50	30	31.50	500	200	1.0	27	+0.091	6P
CMDZ33L	31.35	33	34.65	500	250	1.0	30	+0.092	7P
CMDZ36L	34.20	36	37.80	500	300	1.0	33	+0.093	8P
CMDZ39L	37.05	39	40.95	500	350	1.0	36	+0.094	9P
CMDZ43L	40.85	43	45.15	500	400	1.0	40	+0.095	AR
CMDZ47L	44.65	47	49.35	500	450	1.0	44	+0.095	BR

**SOD-323 CASE - MECHANICAL OUTLINE**



SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.031	0.039	0.80	1.00
B	0.000	0.004	0.00	0.10
C	0.008	-	0.20	-
D	0.004	0.007	0.11	0.19
E	0.045	0.053	1.15	1.35
F	-	0.014	-	0.35
G	0.063	0.071	1.60	1.80
H	0.094	0.102	2.40	2.60

SOD-323 (REV: R4)

**LEAD CODE:**  
1) CATHODE  
2) ANODE

R8 (23-November 2009)