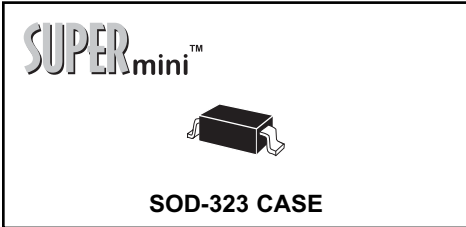


**CMDZ1L8 THRU CMDZ47L**  
**SUPERmini™**  
**LOW LEVEL ZENER DIODE**  
**250mW, 1.8 VOLTS THRU 47 VOLTS**



# Central™

**Semiconductor Corp.**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMDZ1L8 Series Silicon Low Level 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 CODE: SEE MARKING CODES ON ELECTRICAL CHARACTERISTICS TABLE**

**ABSOLUTE MAXIMUM RATINGS:**

Power Dissipation (@T<sub>A</sub>=25°C)  
Operating and Storage Temperature  
Thermal Resistance

**SYMBOL**

P<sub>D</sub> 250  
T<sub>J</sub>, T<sub>stg</sub> -65 to +150  
Θ<sub>JA</sub> 500

**UNIT**

mW  
°C  
°C/W

**ELECTRICAL CHARACTERISTICS: (T<sub>A</sub>=25°C), V<sub>F</sub>=0.9V Max @ I<sub>F</sub>=10mA (FOR ALL TYPES)**

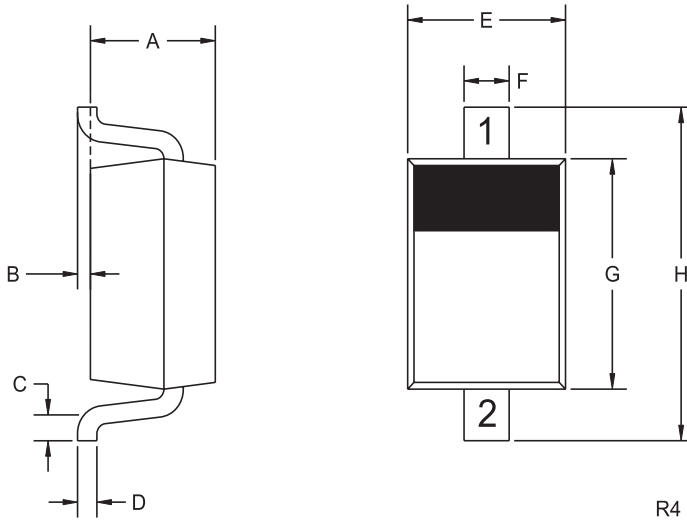
TYPE	ZENER VOLTAGE V <sub>Z</sub> @ I <sub>ZT</sub>			TEST CURRENT I <sub>ZT</sub> μA	MAXIMUM ZENER IMPEDANCE Z <sub>ZT</sub> @ I <sub>ZT</sub> W	MAXIMUM REVERSE CURRENT		MARKING CODE
	MIN	NOM	MAX			I <sub>R</sub> @ V <sub>R</sub> μA	V <sub>R</sub> V	
	V	V	V					
CMDZ1L8	1.710	1.8	1.890	500	1200	25	1.0	7N
CMDZ2L0	1.900	2.0	2.100	500	1100	25	1.0	8N
CMDZ2L2	2.090	2.2	2.310	500	1000	25	1.0	9N
CMDZ2L4	2.280	2.4	2.520	500	900	25	1.0	AP
CMDZ2L5	2.375	2.5	2.625	500	900	10	1.0	BP
CMDZ2L7	2.565	2.7	2.835	500	900	10	1.0	CP
CMDZ2L8	2.660	2.8	2.940	500	900	10	1.0	DP
CMDZ3L0	2.850	3.0	3.150	500	900	5.0	1.0	EP
CMDZ3L3	3.135	3.3	3.465	500	900	5.0	1.0	FP
CMDZ3L6	3.420	3.6	3.780	500	900	5.0	1.0	GP
CMDZ3L9	3.705	3.9	4.095	500	900	5.0	1.0	HP
CMDZ4L3	4.085	4.3	4.515	500	900	5.0	1.0	JP
CMDZ4L7	4.465	4.7	4.935	500	750	1.0	1.5	KP
CMDZ5L1	4.845	5.1	5.355	500	400	1.0	1.5	LP
CMDZ5L6	5.320	5.6	5.880	500	325	1.0	2.0	NP
CMDZ6L2	5.890	6.2	6.510	500	90	1.0	2.0	OP
CMDZ6L8	6.460	6.8	7.140	500	60	1.0	3.5	PP
CMDZ7L5	7.125	7.5	7.875	500	60	1.0	3.5	QP
CMDZ8L2	7.790	8.2	8.610	500	60	1.0	6.0	RP
CMDZ9L1	8.645	9.1	9.555	500	60	1.0	6.0	SP
CMDZ10L	9.50	10	10.50	500	80	1.0	8.0	TP
CMDZ11L	10.45	11	11.55	500	80	1.0	8.0	UP
CMDZ12L	11.40	12	12.60	500	80	1.0	10.5	VP
CMDZ13L	12.35	13	13.65	500	80	1.0	10.5	XP
CMDZ15L	14.25	15	15.75	500	80	1.0	11.5	YP

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

**SOD-323 CASE - MECHANICAL OUTLINE**



**Lead Code:**  
 1) CATHODE  
 2) ANODE

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)

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