



**THE DATASHEET OF  
CMDZ6L2 TR PBFREE**



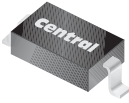
CMDZ1L8 THRU CMDZ47L

**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 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**

**MAXIMUM RATINGS:** (T<sub>A</sub>=25°C)

Power Dissipation  
Operating and Storage Junction 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>	MAXIMUM ZENER IMPEDANCE Z <sub>ZT</sub> @ I <sub>ZT</sub>	MAXIMUM REVERSE CURRENT		MAXIMUM TEMPERATURE COEFFICIENT ϑV <sub>Z</sub>	MARKING CODE
	MIN	NOM	MAX			I <sub>R</sub> @ V <sub>R</sub>			
	V	V	V			μA	V		
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	±0.055	CP
CMDZ2L8	2.660	2.8	2.940	500	900	10	1.0	±0.055	DP
CMDZ3L0	2.850	3.0	3.150	500	900	5.0	1.0	±0.055	EP
CMDZ3L3	3.135	3.3	3.465	500	900	5.0	1.0	±0.055	FP
CMDZ3L6	3.420	3.6	3.780	500	900	5.0	1.0	±0.030	GP
CMDZ3L9	3.705	3.9	4.095	500	900	5.0	1.0	±0.030	HP
CMDZ4L3	4.085	4.3	4.515	500	900	5.0	1.0	±0.030	JP
CMDZ4L7	4.465	4.7	4.935	500	750	1.0	1.5	±0.030	KP
CMDZ5L1	4.845	5.1	5.355	500	400	1.0	1.5	±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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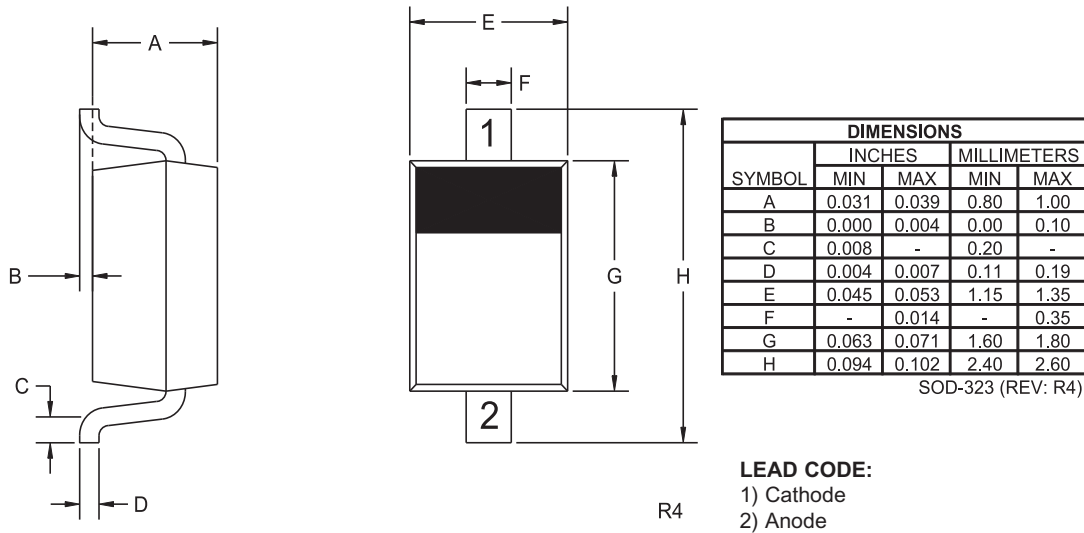
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**ELECTRICAL CHARACTERISTICS - Continued:** ( $T_A=25^\circ\text{C}$ )  $V_F=0.9\text{V Max @ } I_F=10\text{mA}$  (for all types)

TYPE	ZENER VOLTAGE $V_Z @ I_{ZT}$			TEST CURRENT $I_{ZT}$	MAXIMUM ZENER IMPEDANCE $Z_{ZT} @ I_{ZT}$	MAXIMUM REVERSE CURRENT $I_R @ V_R$		MAXIMUM TEMPERATURE COEFFICIENT $\ominus V_Z$	MARKING CODE
	MIN	NOM	MAX			$\mu\text{A}$	V		
	V	V	V						
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**



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## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

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### DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2<sup>nd</sup> day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

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### REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

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### CONTACT US

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- ✓ Obsolete Management
- ✓ Cost Control Management
- ✓ Shortage Management
- ✓ Alternative Solution
- ✓ Excess Inventory Management