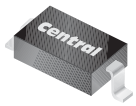
THE DATASHEET OF

CMDZ1L8 TR

CMDZ1L8 THRU CMDZ47L

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

SUPERmini™



SOD-323 CASE

Central Semiconductor Corp.

www.centralsemi.com

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_A=25°C)	**SYMBOL**		**UNIT**
Power Dissipation	P_D	250	mW
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	°C
Thermal Resistance	Θ_{JA}	500	°C/W

ELECTRICAL CHARACTERISTICS: (T_A=25°C), V_F=0.9V Max @ I_F=10mA (for all types)

TYPE	ZENER VOLTAGE V_Z @ I_{ZT}			TEST CURRENT	MAXIMUM ZENER IMPEDANCE	MAXIMUM REVERSE CURRENT		MAXIMUM TEMPERATURE COEFFICIENT	MARKING CODE
	MIN	NOM	MAX	I_{ZT}	Z_{ZT} @ I_{ZT}	I_R @ V_R		ΘV_Z	
	V	V	V	µA	Ω	µA	V	%/°C	
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

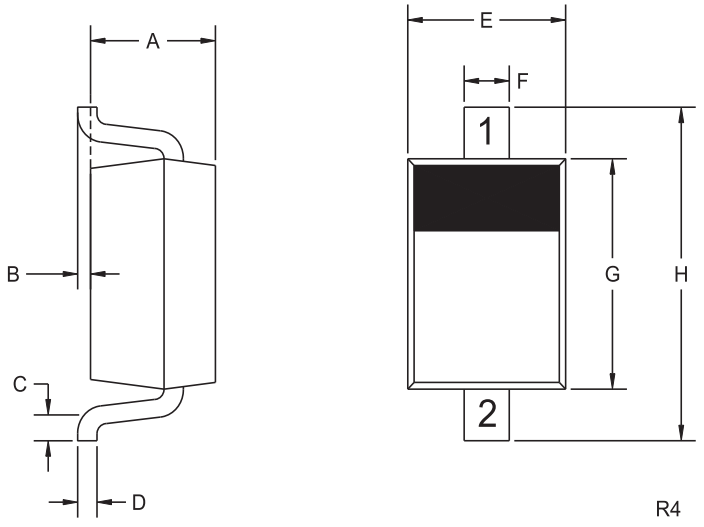
CMDZ1L8 THRU CMDZ47L

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

ELECTRICAL CHARACTERISTICS - Continued: (T_A=25°C) V_F=0.9V Max @ I_F=10mA (for all types)

TYPE	ZENER VOLTAGE V_Z @ I_{ZT}			TEST CURRENT	MAXIMUM ZENER IMPEDANCE	MAXIMUM REVERSE CURRENT		MAXIMUM TEMPERATURE COEFFICIENT	MARKING CODE
	MIN	NOM	MAX	I_{ZT}	Z_{ZT} @ I_{ZT}	I_R @ V_R		ΘV_Z	
	V	V	V	µA	Ω	µA	V	%/°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



DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	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

R10 (21-October 2010)

OUTSTANDING SUPPORT AND SUPERIOR SERVICES

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

DESIGNER SUPPORT/SERVICES

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

- Free quick ship samples (2nd 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

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).

CONTACT US

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- Shortage Management
- Alternative Solution
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