

CMOZ1L8 THRU CMOZ47L

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

ULTRAmi™

SOD-523 CASE

Central™

Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMOZ1L8 Series Low Level Zener Diode is a high quality voltage regulator in an epoxy-molded ULTRAmi™ package, designed for applications requiring an extremely low operating current and low leakage.

MARKING CODE: SEE MARKING CODE ON ELECTRICAL CHARACTERISTIC TABLE

ABSOLUTE MAXIMUM RATINGS:

 Power Dissipation ($T_A = 25^\circ\text{C}$)

Operating and Storage Temperature

Thermal Resistance

SYMBOL
 P_D
 T_J, T_{stg}
 Θ_{JA}

250

-65 to +150

500

UNIT

mW

 $^\circ\text{C}$
 $^\circ\text{C/W}$

ELECTRICAL CHARACTERISTICS: ($T_A = 25^\circ\text{C}$), $V_F = 0.9 \text{ MAX}$ @ $I_F = 10 \text{ mA}$ FOR ALL TYPES.

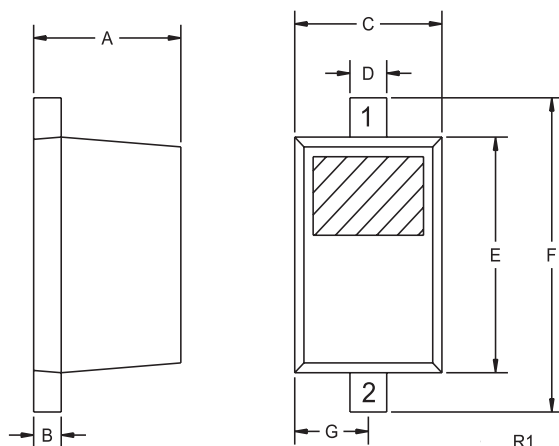
TYPE	ZENER VOLTAGE V _Z @ I _{ZT}			TEST CURRENT	MAXIMUM ZENER IMPEDANCE	MAXIMUM REVERSE CURRENT		MARKING CODE	
	MIN	NOM	MAX			I _{ZT}	Z _{ZT} @ I _{ZT}		I _R @ V _R
	VOLTS	VOLTS	VOLTS						
CMOZ1L8	1.71	1.8	1.89	250	1400	25	1.0	L8	
CMOZ2L0	1.90	2.0	2.10	250	1400	25	1.0	L9	
CMOZ2L2	2.09	2.2	2.31	250	1400	25	1.0	L0	
CMOZ2L4	2.28	2.4	2.52	250	1400	25	1.0	M1	
CMOZ2L5	2.37	2.5	2.63	250	1500	10	1.0	M2	
CMOZ2L7	2.57	2.7	2.84	250	1500	5.0	1.0	M3	
CMOZ3L0	2.85	3.0	3.15	250	1600	5.0	1.0	M30	
CMOZ3L3	3.14	3.3	3.47	250	1600	5.0	1.0	M4	
CMOZ3L6	3.42	3.6	3.78	250	1700	5.0	1.0	M5	
CMOZ3L9	3.71	3.9	4.10	250	1600	5.0	1.0	M6	
CMOZ4L3	4.09	4.3	4.52	250	1600	1.0	1.5	M7	
CMOZ4L7	4.47	4.7	4.94	250	1500	1.0	1.5	M8	
CMOZ5L1	4.85	5.1	5.36	250	1500	1.0	1.5	M9	
CMOZ5L6	5.32	5.6	5.88	250	1400	1.0	2.0	M0	
CMOZ6L2	5.89	6.2	6.51	250	1200	1.0	2.0	N1	
CMOZ6L8	6.46	6.8	7.14	250	200	1.0	3.5	N2	
CMOZ7L5	7.12	7.5	7.88	250	200	1.0	3.5	N3	
CMOZ8L2	7.79	8.2	8.61	250	200	1.0	6.0	N4	
CMOZ9L1	8.65	9.1	9.56	250	200	1.0	6.0	N5	
CMOZ10L	9.50	10	10.50	250	200	1.0	8.0	N6	
CMOZ11L	10.45	11	11.55	250	200	1.0	8.0	N7	

R5 (19-November 2004)

ELECTRICAL CHARACTERISTICS (CONTINUED):

TYPE	ZENER VOLTAGE $V_Z @ I_{ZT}$			TEST CURRENT	MAXIMUM ZENER IMPEDANCE	MAXIMUM REVERSE CURRENT		MARKING CODE
	MIN	NOM	MAX	I_{ZT}	$Z_{ZT} @ I_{ZT}$	$I_R @ V_R$		
	VOLTS	VOLTS	VOLTS	μA	Ω	μA	VOLTS	
CMOZ12L	11.40	12	12.60	250	200	1.0	10.5	N8
CMOZ13L	12.35	13	13.65	250	200	1.0	10.5	N9
CMOZ15L	14.25	15	15.75	250	100	1.0	11.5	N0
CMOZ16L	15.20	16	16.80	250	100	1.0	14	P1
CMOZ18L	17.10	18	18.90	250	100	1.0	16	P2
CMOZ20L	19.00	20	21.00	250	150	1.0	18	P3
CMOZ22L	20.90	22	23.10	250	150	1.0	20	P4
CMOZ24L	22.80	24	25.20	250	150	1.0	22	P5
CMOZ27L	25.65	27	28.35	250	150	1.0	24	P6
CMOZ30L	28.50	30	31.50	250	200	1.0	27	P7
CMOZ33L	31.35	33	34.65	250	250	1.0	30	P8
CMOZ36L	34.20	36	37.80	250	200	1.0	33	P9
CMOZ39L	37.05	39	40.95	250	200	1.0	36	P0
CMOZ43L	40.85	43	45.15	250	250	1.0	40	R1
CMOZ47L	44.65	47	49.35	250	250	1.0	43	R2

SOD-523 CASE - MECHANICAL OUTLINE



DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.020	0.031	0.50	0.80
B	0.004	0.008	0.10	0.20
C	0.028	0.035	0.70	0.90
D	0.008	0.011	0.20	0.28
E	0.039	0.055	1.00	1.40
F	0.055	0.071	1.40	1.80
G	0.016		0.40	

SOD-523 (REV: R1)

LEAD CODE:

- 1) CATHODE
- 2) ANODE

R5 (19-November 2004)