



**FUKUCOM COMPANY LTD.**

**福 靈 有 限 公 司**

FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,  
KWUN TONG, KOWLOON, HONG KONG.

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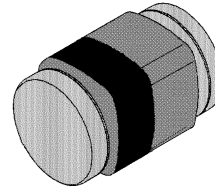
## ZMC1B ... ZMC200B

### SILICON PLANAR ZENER DIODES

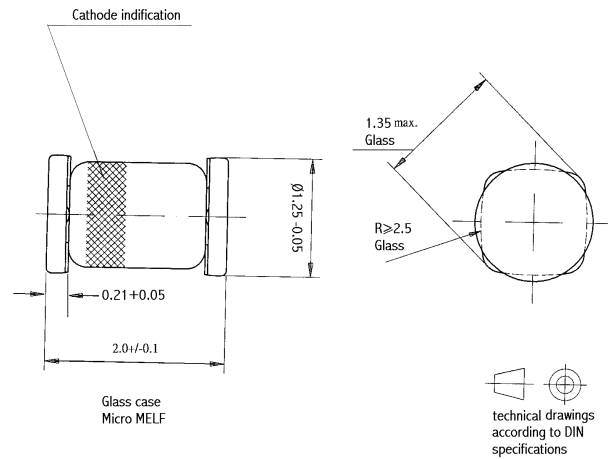
LS-31

#### Features

- Fits onto SOD 323 / SOT 23 footprints
- Micro Melf package



#### Dimensions in mm



#### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

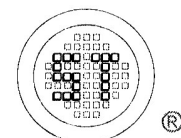
Parameter	Symbol	Value	Unit
Power Dissipation	$P_{tot}$	500 <sup>1)</sup>	mW
Junction Temperature	$T_j$	175	$^\circ\text{C}$
Storage Temperature Range	$T_s$	-55 to +175	$^\circ\text{C}$

<sup>1)</sup> Valid provided that electrodes are kept at ambient temperature.

#### Characteristics at $T_{amb} = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit
Thermal Resistance Junction to Ambient Air	$R_{thA}$	-	0.3 <sup>1)</sup>	K/mW

<sup>1)</sup> Valid provided that electrodes are kept at ambient temperature.



**SEMTECH**

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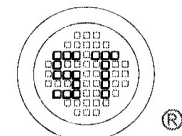
**ZMC1B ... ZMC200B**

Type	Zener Voltage range <sup>1)</sup>			Dynamic resistance			Reverse leakage current			Temp. Coefficient of Zener TK <sub>VZ</sub> %/K
	V <sub>Znom</sub> V	I <sub>ZT</sub> mA	V <sub>ZT</sub> <sup>2)</sup> V	r <sub>ZT</sub> Ω	r <sub>ZJK</sub> at I <sub>ZK</sub> Ω	I <sub>ZK</sub> mA	T <sub>a</sub> = 25 °C μA	T <sub>a</sub> = 125 °C μA	I <sub>R</sub> at V <sub>R</sub> V	
ZMC1B <sup>3)</sup>	0.75	5	0.73...0.77	<8	<50	1	--	--	--	-0.26...-0.23
ZMC2B0	2.0	5	1.96...2.04	<85	<600	1	<100	<200	1	-0.09...-0.06
ZMC2B2	2.2	5	2.15...2.25	<85	<600	1	<75	<160	1	-0.09...-0.06
ZMC2B4	2.4	5	2.35...2.45	<85	<600	1	<50	<100	1	-0.09...-0.06
ZMC2B7	2.7	5	2.64...2.76	<85	<600	1	<10	<50	1	-0.09...-0.06
ZMC3B0	3.0	5	2.94...3.06	<85	<600	1	<4	<40	1	-0.08...-0.05
ZMC3B3	3.3	5	3.23...3.37	<85	<600	1	<2	<40	1	-0.08...-0.05
ZMC3B6	3.6	5	3.52...3.68	<85	<600	1	<2	<40	1	-0.08...-0.05
ZMC3B9	3.9	5	3.82...3.98	<85	<600	1	<2	<40	1	-0.08...-0.05
ZMC4B3	4.3	5	4.21...4.39	<75	<600	1	<1	<20	1	-0.06...-0.03
ZMC4B7	4.7	5	4.6...4.8	<60	<600	1	<0.5	<10	1	-0.05...+0.02
ZMC5B1	5.1	5	4.99...5.21	<35	<550	1	<0.1	<2	1	-0.02...+0.02
ZMC5B6	5.6	5	5.48...5.72	<25	<450	1	<0.1	<2	1	-0.05...+0.05
ZMC6B2	6.2	5	6.07...6.33	<10	<200	1	<0.1	<2	2	0.03...0.06
ZMC6B8	6.8	5	6.66...6.94	<8	<150	1	<0.1	<2	3	0.03...0.07
ZMC7B5	7.5	5	7.35...7.65	<7	<50	1	<0.1	<2	5	0.03...0.07
ZMC8B2	8.2	5	8.03...8.37	<7	<50	1	<0.1	<2	6.2	0.03...0.08
ZMC9B1	9.1	5	8.91...9.29	<10	<50	1	<0.1	<2	6.8	0.03...0.09
ZMC10B	10	5	9.8...10.2	<15	<70	1	<0.1	<2	7.5	0.03...0.1
ZMC11B	11	5	10.78...11.22	<20	<70	1	<0.1	<2	8.2	0.03...0.11
ZMC12B	12	5	11.76...12.24	<20	<90	1	<0.1	<2	9.1	0.03...0.11
ZMC13B	13	5	12.74...13.26	<26	<110	1	<0.1	<2	10	0.03...0.11
ZMC15B	15	5	14.7...15.3	<30	<110	1	<0.1	<2	11	0.03...0.11
ZMC16B	16	5	15.68...16.32	<40	<170	1	<0.1	<2	12	0.03...0.11
ZMC18B	18	5	17.64...18.36	<50	<170	1	<0.1	<2	13	0.03...0.11
ZMC20B	20	5	19.6...20.4	<55	<220	1	<0.1	<2	15	0.03...0.11
ZMC22B	22	5	21.56...22.44	<55	<220	1	<0.1	<2	16	0.04...0.12
ZMC24B	24	5	23.52...24.48	<80	<220	1	<0.1	<2	18	0.04...0.12
ZMC27B	27	5	26.46...27.54	<80	<220	1	<0.1	<2	20	0.04...0.12
ZMC30B	30	5	29.4...30.6	<80	<220	1	<0.1	<2	22	0.04...0.12
ZMC33B	33	5	32.34...33.66	<80	<220	1	<0.1	<2	24	0.04...0.12
ZMC36B	36	5	35.28...36.72	<80	<220	1	<0.1	<2	27	0.04...0.12
ZMC39B	39	2	38.22...39.78	<90	<500	0.5	<0.1	<5	30	0.04...0.12
ZMC43B	43	2	42.14...43.86	<90	<500	0.5	<0.1	<5	33	0.04...0.12
ZMC47B	47	2	46.06...47.94	<110	<600	0.5	<0.1	<5	36	0.04...0.12
ZMC51B	51	2	49.98...52.02	<125	<700	0.5	<0.1	<10	39	0.04...0.12
ZMC56B	56	2	54.88...57.12	<135	<700	0.5	<0.1	<10	43	0.04...0.12
ZMC62B	62	2	60.76...63.24	<150	<1000	0.5	<0.1	<10	47	0.04...0.12
ZMC68B	68	2	66.64...69.36	<200	<1000	0.5	<0.1	<10	51	0.04...0.12
ZMC75B	75	2	73.5...76.5	<250	<1000	0.5	<0.1	<10	56	0.04...0.12
ZMC82B	82	2	80.36...83.64	<300	<1500	0.25	<0.1	<10	62	0.05...0.12
ZMC91B	91	1	89.18...92.82	<450	<2000	0.1	<0.1	<10	68	0.05...0.12
ZMC100B	100	1	98...102	<450	<5000	0.1	<0.1	<10	75	0.05...0.12
ZMC110B	110	1	107.8...112.2	<600	<5000	0.1	<0.1	<10	82	0.05...0.12
ZMC120B	120	1	117.6...122.4	<800	<5500	0.1	<0.1	<10	91	0.05...0.12
ZMC130B	130	1	127.4...132.6	<950	<6000	0.1	<0.1	<10	100	0.05...0.12
ZMC150B	150	1	147...153	<1250	<6500	0.1	<0.1	<10	110	0.05...0.12
ZMC160B	160	1	156.8...163.2	<1400	<7000	0.1	<0.1	<10	120	0.05...0.12
ZMC180B	180	1	176.4...183.6	<1700	<8500	0.1	<0.1	<10	130	0.05...0.12
ZMC200B	200	1	196...204	<2000	<10000	0.1	<0.1	<10	150	0.05...0.12

<sup>1)</sup> Tested with pulse t<sub>p</sub> = 20 ms.

<sup>2)</sup> Valid provided that electrodes are kept at ambient temperature.

<sup>3)</sup> The ZMC1 is a silicon diode with operation in forward direction. Hence, the index of all parameters should be "F" instead of "Z". Connect the cathode electrode to the negative pole.



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Dated : 19/01/2006