



**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.

TEL: 852-2790 0314 FAX: 852-2790 0206

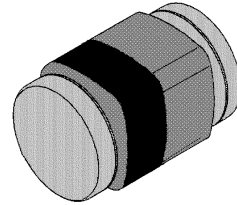
## ZMC1 ... ZMC200

### SILICON PLANAR ZENER DIODES

LS-31

#### Features

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

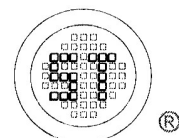


#### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

	Symbol	Value	Unit
Zener Current see Table "Characteristics"			
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 $T_{amb} = 25^\circ\text{C}$

	Symbol	Min.	Typ.	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.					



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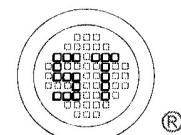
**ZMC1 ... ZMC200**

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	I <sub>ZT</sub> for V <sub>ZT</sub> <sup>2)</sup> V	r <sub>zT</sub> Ω	r <sub>zK</sub> Ω	at I <sub>ZK</sub> mA	T <sub>a</sub> = 25°C at V <sub>R</sub>	T <sub>a</sub> = 125°C	I <sub>R</sub>	
ZMC1 <sup>3)</sup>	0.75	5	0.7...0.8	<8	<50	1	--	--	--	-0.26...-0.23
ZMC2.0	2.0	5	1.80...2.15	<85	<600	1	<100	<200	1	-0.09...-0.06
ZMC2.2	2.2	5	2.08...2.33	<85	<600	1	<75	<160	1	-0.09...-0.06
ZMC2.4	2.4	5	2.28...2.56	<85	<600	1	<50	<100	1	-0.09...-0.06
ZMC2.7	2.7	5	2.5...2.9	<85	<600	1	<10	<50	1	-0.09...-0.06
ZMC3.0	3.0	5	2.8...3.2	<85	<600	1	<4	<40	1	-0.08...-0.05
ZMC3.3	3.3	5	3.1...3.5	<85	<600	1	<2	<40	1	-0.08...-0.05
ZMC3.6	3.6	5	3.4...3.8	<85	<600	1	<2	<40	1	-0.08...-0.05
ZMC3.9	3.9	5	3.7...4.1	<85	<600	1	<2	<40	1	-0.08...-0.05
ZMC4.3	4.3	5	4.0...4.6	<75	<600	1	<1	<20	1	-0.06...-0.03
ZMC4.7	4.7	5	4.4...5.0	<60	<600	1	<0.5	<10	1	-0.05...+0.02
ZMC5.1	5.1	5	4.8...5.4	<35	<550	1	<0.1	<2	1	-0.02...+0.02
ZMC5.6	5.6	5	5.2...6.0	<25	<450	1	<0.1	<2	1	-0.05...+0.05
ZMC6.2	6.2	5	5.8...6.6	<10	<200	1	<0.1	<2	2	0.03...0.06
ZMC6.8	6.8	5	6.4...7.2	<8	<150	1	<0.1	<2	3	0.03...0.07
ZMC7.5	7.5	5	7.0...7.9	<7	<50	1	<0.1	<2	5	0.03...0.07
ZMC8.2	8.2	5	7.7...8.7	<7	<50	1	<0.1	<2	6.2	0.03...0.08
ZMC9.1	9.1	5	8.5...9.6	<10	<50	1	<0.1	<2	6.8	0.03...0.09
ZMC10	10	5	9.4...10.6	<15	<70	1	<0.1	<2	7.5	0.03...0.1
ZMC11	11	5	10.4...11.6	<20	<70	1	<0.1	<2	8.2	0.03...0.11
ZMC12	12	5	11.4...12.7	<20	<90	1	<0.1	<2	9.1	0.03...0.11
ZMC13	13	5	12.4...14.1	<26	<110	1	<0.1	<2	10	0.03...0.11
ZMC15	15	5	13.8...15.6	<30	<110	1	<0.1	<2	11	0.03...0.11
ZMC16	16	5	15.3...17.1	<40	<170	1	<0.1	<2	12	0.03...0.11
ZMC18	18	5	16.8...19.1	<50	<170	1	<0.1	<2	13	0.03...0.11
ZMC20	20	5	18.8...21.2	<55	<220	1	<0.1	<2	15	0.03...0.11
ZMC22	22	5	20.8...23.3	<55	<220	1	<0.1	<2	16	0.04...0.12
ZMC24	24	5	22.8...25.6	<80	<220	1	<0.1	<2	18	0.04...0.12
ZMC27	27	5	25.1...28.9	<80	<220	1	<0.1	<2	20	0.04...0.12
ZMC30	30	5	28...32	<80	<220	1	<0.1	<2	22	0.04...0.12
ZMC33	33	5	31...35	<80	<220	1	<0.1	<2	24	0.04...0.12
ZMC36	36	5	34...38	<80	<220	1	<0.1	<2	27	0.04...0.12
ZMC39	39	2.5	37...41	<90	<500	0.5	<0.1	<5	30	0.04...0.12
ZMC43	43	2.5	40...46	<90	<500	0.5	<0.1	<5	33	0.04...0.12
ZMC47	47	2.5	44...50	<110	<600	0.5	<0.1	<5	36	0.04...0.12
ZMC51	51	2.5	48...54	<125	<700	0.5	<0.1	<10	39	0.04...0.12
ZMC56	56	2.5	52...60	<135	<700	0.5	<0.1	<10	43	0.04...0.12
ZMC62	62	2.5	58...66	<150	<1000	0.5	<0.1	<10	47	0.04...0.12
ZMC68	68	2.5	64...72	<200	<1000	0.5	<0.1	<10	51	0.04...0.12
ZMC75	75	2.5	70...79	<250	<1000	0.5	<0.1	<10	56	0.04...0.12
ZMC82	82	2.5	77...87	<300	<1500	0.25	<0.1	<10	62	0.05...0.12
ZMC91	91	1	85...96	<450	<2000	0.1	<0.1	<10	68	0.05...0.12
ZMC100	100	1	94...106	<450	<5000	0.1	<0.1	<10	75	0.05...0.12
ZMC110	110	1	104...116	<600	<5000	0.1	<0.1	<10	82	0.05...0.12
ZMC120	120	1	114...127	<800	<5500	0.1	<0.1	<10	91	0.05...0.12
ZMC130	130	1	124...141	<950	<6000	0.1	<0.1	<10	100	0.05...0.12
ZMC150	150	1	138...156	<1250	<6500	0.1	<0.1	<10	110	0.05...0.12
ZMC160	160	1	153...171	<1400	<7000	0.1	<0.1	<10	120	0.05...0.12
ZMC180	180	1	168...191	<1700	<8500	0.1	<0.1	<10	130	0.05...0.12
ZMC200	200	1	188...212	<2000	<10000	0.1	<0.1	<10	150	0.05...0.12

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

2) Valid provided that electrodes are kept at ambient temperature.

3) 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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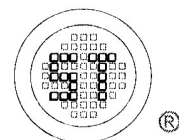
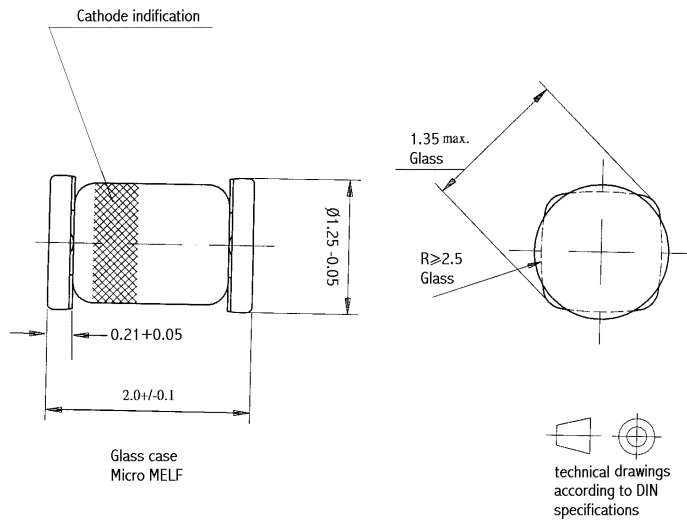
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Dimensions in mm



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