

ZMC52 Series

Silicon Epitaxial Planar Zener Diodes

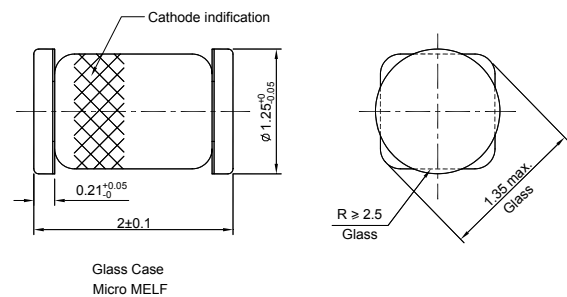
Standard Zener voltage tolerance is $\pm 20\%$.
 Add suffix "A" for $\pm 10\%$ Tolerance, suffix
 "B" for $\pm 5\%$ tolerance, suffix "C" for $\pm 2\%$
 tolerance, Other tolerance, non standard
 and higher Zener voltages are upon request.

LS-31



Features

- Fits onto SOD-323 / SOT-23 footprints
- MicroMELF package

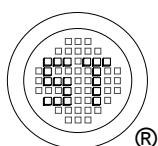


Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Power Dissipation	P_{tot}	500 ¹⁾	mW
Junction Temperature	T_j	200	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to + 200	$^\circ\text{C}$
¹⁾ Valid provided that electrodes are kept at ambient temperature			

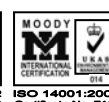
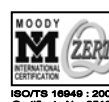
Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient Air	R_{thA}	0.3 ¹⁾	K/mW
Forward Voltage at $I_F = 200\text{ mA}$	V_F	1.1	V
¹⁾ Valid provided that electrodes are kept at ambient temperature			



SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



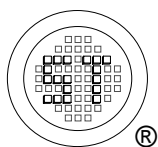
Dated : 10/09/2009

ZMC52 Series

Characteristics at $T_a = 25\text{ }^\circ\text{C}$

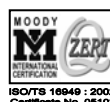
Type	Zener Voltage Range ¹⁾				Dynamic Resistance			Reverse Current		Temp. Coefficient of Zener Voltage
	V_{Znom} (V)	V_{ZT}		at I_{ZT}	Z_{ZT}	Z_{ZK}	at I_{ZK}	I_R	at V_R	TK_{VZ}
		Min. (V)	Max. (V)	(mA)	Max. (Ω)	Max. (Ω)	(mA)	Max. (μA)	(V)	%/K
ZMC5220B	2.2	2.09	2.31	20	30	1150	0.25	100	1	<-0.085
ZMC5221B	2.4	2.28	2.52	20	30	1200	0.25	100	1	<-0.085
ZMC5222B	2.5	2.38	2.62	20	30	1250	0.25	100	1	<-0.085
ZMC5223B	2.7	2.57	2.83	20	30	1300	0.25	75	1	<-0.080
ZMC5224B	2.8	2.66	2.94	20	30	1400	0.25	75	1	<-0.080
ZMC5225B	3	2.85	3.15	20	29	1600	0.25	50	1	<-0.075
ZMC5226B	3.3	3.14	3.46	20	28	1600	0.25	25	1	<-0.070
ZMC5227B	3.6	3.42	3.78	20	24	1700	0.25	15	1	<-0.065
ZMC5228B	3.9	3.71	4.09	20	23	1900	0.25	10	1	<-0.060
ZMC5229B	4.3	4.09	4.51	20	22	2000	0.25	5	1	<-0.055
ZMC5230B	4.7	4.47	4.93	20	19	1900	0.25	5	2	< \pm 0.030
ZMC5231B	5.1	4.85	5.35	20	17	1600	0.25	5	2	< \pm 0.030
ZMC5232B	5.6	5.32	5.88	20	11	1600	0.25	5	3	<+0.038
ZMC5233B	6	5.7	6.3	20	7	1600	0.25	5	3.5	<+0.038
ZMC5234B	6.2	5.89	6.51	20	7	1000	0.25	5	4	<+0.045
ZMC5235B	6.8	6.46	7.14	20	5	750	0.25	3	5	<+0.050
ZMC5236B	7.5	7.13	7.87	20	6	500	0.25	3	6	<+0.058
ZMC5237B	8.2	7.79	8.61	20	8	500	0.25	3	6.5	<+0.062
ZMC5238B	8.7	8.27	9.13	20	8	600	0.25	3	6.5	<+0.065
ZMC5239B	9.1	8.65	9.55	20	10	600	0.25	3	7	<+0.068
ZMC5240B	10	9.5	10.5	20	17	600	0.25	3	8	<+0.075
ZMC5241B	11	10.45	11.55	20	22	600	0.25	2	8.4	<+0.076
ZMC5242B	12	11.4	12.6	20	30	600	0.25	1	9.1	<+0.077
ZMC5243B	13	12.35	13.65	9.5	13	600	0.25	0.5	9.9	<+0.079
ZMC5244B	14	13.3	14.7	9	15	600	0.25	0.1	10	<+0.082
ZMC5245B	15	14.25	15.75	8.5	16	600	0.25	0.1	11	<+0.082
ZMC5246B	16	15.2	16.8	7.8	17	600	0.25	0.1	12	<+0.083
ZMC5247B	17	16.15	17.85	7.4	19	600	0.25	0.1	13	<+0.084
ZMC5248B	18	17.1	18.9	7	21	600	0.25	0.1	14	<+0.085
ZMC5249B	19	18.05	19.95	6.6	23	600	0.25	0.1	14	<+0.086
ZMC5250B	20	19	21	6.2	25	600	0.25	0.1	15	<+0.086
ZMC5251B	22	20.9	23.1	5.6	29	600	0.25	0.1	17	<+0.087
ZMC5252B	24	22.8	25.2	5.2	33	600	0.25	0.1	18	<+0.088
ZMC5253B	25	23.75	26.25	5	35	600	0.25	0.1	19	<+0.089
ZMC5254B	27	25.65	28.35	4.6	41	600	0.25	0.1	21	<+0.090
ZMC5255B	28	26.6	29.4	4.5	44	600	0.25	0.1	21	<+0.091
ZMC5256B	30	28.5	31.5	4.2	49	600	0.25	0.1	23	<+0.091
ZMC5257B	33	31.35	34.65	3.8	58	700	0.25	0.1	25	<+0.092
ZMC5258B	36	34.2	37.8	3.4	70	700	0.25	0.1	27	<+0.093
ZMC5259B	39	37.05	40.95	3.2	80	800	0.25	0.1	30	<+0.094
ZMC5260B	43	40.85	45.15	3	93	900	0.25	0.1	33	<+0.095
ZMC5261B	47	44.65	49.35	2.7	105	1000	0.25	0.1	36	<+0.095
ZMC5262B	51	48.45	53.55	2.5	125	1100	0.25	0.1	39	<+0.096
ZMC5263B	56	53.2	58.8	2.2	150	1300	0.25	0.1	43	<+0.096
ZMC5264B	60	57	63	2.1	170	1400	0.25	0.1	46	<+0.097
ZMC5265B	62	58.9	65.1	2	185	1400	0.25	0.1	47	<+0.097
ZMC5266B	68	64.6	71.4	1.8	230	1600	0.25	0.1	52	<+0.097
ZMC5267B	75	71.25	78.75	1.7	270	1700	0.25	0.1	56	<+0.098

¹⁾ Tested with pulses $t_p = 20\text{ ms}$.



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