

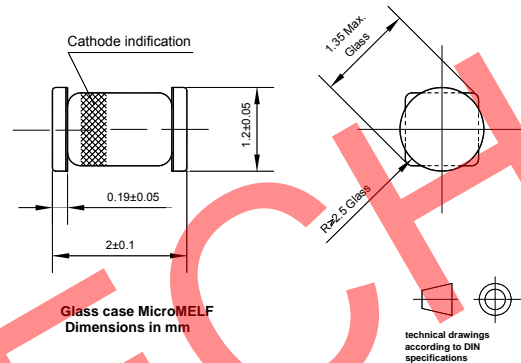
ZMC1B...ZMC75B

Silicon Epitaxial Planar Zener Diodes

Features

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

LS-31



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

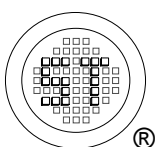
Parameter	Symbol	Value	Unit
Power Dissipation	P_{tot}	500 ¹⁾	mW
Junction Temperature	T_j	175	°C
Storage Temperature Range	T_{stg}	- 55 to + 175	°C

¹⁾ Valid provided that electrodes are kept at ambient temperature

Characteristics at $T_a = 25\text{ °C}$

Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient Air	R_{thA}	0.3 ¹⁾	K/mW
Forward Voltage at $I_F = 100\text{ mA}$	V_F	1	V

¹⁾ Valid provided that electrodes are kept at ambient temperature



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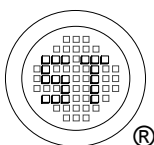
ZMC1B...ZMC75B

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

Type	Zener Voltage ¹⁾			Dynamic Resistance			Reverse Leakage Current			Temp coefficient of Zener Voltage TKvz (%/K)
	V_{Znom}	V_{ZT}	at I_{ZT}	Z_{ZT}	Z_{ZK}	at I_{ZK}	$T_a = 25\text{ }^\circ\text{C}$	$T_a = 125\text{ }^\circ\text{C}$	at V_R	
	(V)	(V)	(mA)	Max. (Ω)	Max. (Ω)	(mA)	Max. (μA)	Max. (μA)	(V)	
ZMC1B ²⁾	0.75	0.73...0.77	5	8	50	1	-	-	-	-0.26...-0.23
ZMC2B0	2	1.96...2.04	5	85	600	1	100	200	1	-0.09...-0.06
ZMC2B2	2.2	2.15...2.25	5	85	600	1	75	160	1	-0.09...-0.06
ZMC2B4	2.4	2.35...2.45	5	85	600	1	50	100	1	-0.09...-0.06
ZMC2B7	2.7	2.64...2.76	5	85	600	1	10	50	1	-0.09...-0.06
ZMC3B0	3	2.94...3.06	5	85	600	1	4	40	1	-0.08...-0.05
ZMC3B3	3.3	3.23...3.37	5	85	600	1	2	40	1	-0.08...-0.05
ZMC3B6	3.6	3.52...3.68	5	85	600	1	2	40	1	-0.08...-0.05
ZMC3B9	3.9	3.82...3.98	5	85	600	1	2	40	1	-0.08...-0.05
ZMC4B3	4.3	4.21...4.39	5	75	600	1	1	20	1	-0.06...-0.03
ZMC4B7	4.7	4.6...4.8	5	60	600	1	0.5	10	1	-0.05...+0.02
ZMC5B1	5.1	4.99...5.21	5	35	550	1	0.1	2	1	-0.02...+0.02
ZMC5B6	5.6	5.48...5.72	5	25	450	1	0.1	2	1	-0.05...+0.05
ZMC6B2	6.2	6.07...6.33	5	10	200	1	0.1	2	2	0.03...0.06
ZMC6B8	6.8	6.66...6.94	5	8	150	1	0.1	2	3	0.03...0.07
ZMC7B5	7.5	7.35...7.65	5	7	50	1	0.1	2	5	0.03...0.07
ZMC8B2	8.2	8.03...8.37	5	7	50	1	0.1	2	6.2	0.03...0.08
ZMC9B1	9.1	8.91...9.29	5	10	50	1	0.1	2	6.8	0.03...0.09
ZMC10B	10	9.8...10.2	5	15	70	1	0.1	2	7.5	0.03...0.1
ZMC11B	11	10.78...11.22	5	20	70	1	0.1	2	8.2	0.03...0.11
ZMC12B	12	11.76...12.24	5	20	90	1	0.1	2	9.1	0.03...0.11
ZMC13B	13	12.74...13.26	5	26	110	1	0.1	2	10	0.03...0.11
ZMC15B	15	14.7...15.3	5	30	110	1	0.1	2	11	0.03...0.11
ZMC16B	16	15.68...16.32	5	40	170	1	0.1	2	12	0.03...0.11
ZMC18B	18	17.64...18.36	5	50	170	1	0.1	2	13	0.03...0.11
ZMC20B	20	19.6...20.4	5	55	220	1	0.1	2	15	0.03...0.11
ZMC22B	22	21.56...22.44	5	55	220	1	0.1	2	16	0.04...0.12
ZMC24B	24	23.52...24.48	5	80	220	1	0.1	2	18	0.04...0.12
ZMC27B	27	26.46...27.54	5	80	220	1	0.1	2	20	0.04...0.12
ZMC30B	30	29.4...30.6	5	80	220	1	0.1	2	22	0.04...0.12
ZMC33B	33	32.34...33.66	5	80	220	1	0.1	2	24	0.04...0.12
ZMC36B	36	35.28...36.72	5	80	220	1	0.1	2	27	0.04...0.12
ZMC39B	39	38.22...39.78	2.5	90	500	0.5	0.1	5	30	0.04...0.12
ZMC43B	43	42.14...43.86	2.5	90	500	0.5	0.1	5	33	0.04...0.12
ZMC47B	47	46.06...47.94	2.5	110	600	0.5	0.1	5	36	0.04...0.12
ZMC51B	51	49.98...52.02	2.5	125	700	0.5	0.1	10	39	0.04...0.12
ZMC56B	56	54.88...57.12	2.5	135	700	0.5	0.1	10	43	0.04...0.12
ZMC62B	62	60.76...63.24	2.5	150	1000	0.5	0.1	10	47	0.04...0.12
ZMC68B	68	66.64...69.36	2.5	200	1000	0.5	0.1	10	51	0.04...0.12
ZMC75B	75	73.5...76.5	2.5	250	1000	0.5	0.1	10	56	0.04...0.12

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

²⁾ The ZMC1B 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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