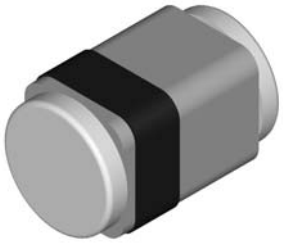
ZMC1…ZMC75

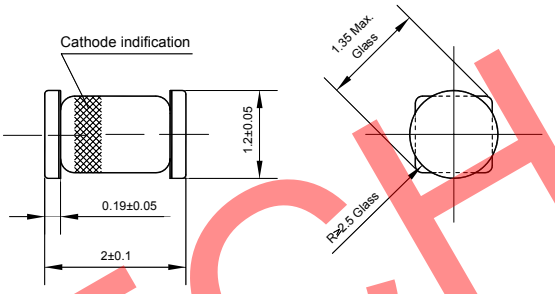
Silicon Epitaxial Planar Zener Diodes

Features

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

LS-31





Glass case MicroMELF
Dimensions in mm

Absolute Maximum Ratings (T_a = 25 °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 °C

Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient Air	R_{thA}	0.3 [1]	K/mW
Forward Voltage at I_F = 100 mA	V_F	1	V
[1] Valid provided that electrodes are kept at ambient temperature			

Characteristics at T_a = 25 °C

Type	Zener Voltage [1]			Dynamic Resistance			Reverse Leakage Current			Temp coefficient of Zener Voltage
	V_{Znom}	V_{ZT}	at I_{ZT}	Z_{ZT}	Z_{ZK}	at I_{ZK}	T_a = 25 °C	T_a = 125 °C	at V_R	
	(V)	(V)	(mA)	Max. (Ω)	Max. (Ω)	(mA)	Max. (µA)	Max. (µA)	(V)	TKvz (%/K)
ZMC1 [2]	0.75	0.7…0.8	5	8	50	1	-	-	-	-0.26…-0.23
ZMC2V0	2	1.8…2.15	5	85	600	1	100	200	1	-0.09…-0.06
ZMC2V2	2.2	2.08…2.33	5	85	600	1	75	160	1	-0.09…-0.06
ZMC2V4	2.4	2.28…2.56	5	85	600	1	50	100	1	-0.09…-0.06
ZMC2V7	2.7	2.5…2.9	5	85	600	1	10	50	1	-0.09…-0.06
ZMC3V0	3	2.8…3.2	5	85	600	1	4	40	1	-0.08…-0.05
ZMC3V3	3.3	3.1…3.5	5	85	600	1	2	40	1	-0.08…-0.05
ZMC3V6	3.6	3.4…3.8	5	85	600	1	2	40	1	-0.08…-0.05
ZMC3V9	3.9	3.7…4.1	5	85	600	1	2	40	1	-0.08…-0.05
ZMC4V3	4.3	4…4.6	5	75	600	1	1	20	1	-0.06…-0.03
ZMC4V7	4.7	4.4…5	5	60	600	1	0.5	10	1	-0.05…+0.02
ZMC5V1	5.1	4.8…5.4	5	35	550	1	0.1	2	1	-0.02…+0.02
ZMC5V6	5.6	5.2…6	5	25	450	1	0.1	2	1	-0.05…+0.05
ZMC6V2	6.2	5.8…6.6	5	10	200	1	0.1	2	2	0.03…0.06
ZMC6V8	6.8	6.4…7.2	5	8	150	1	0.1	2	3	0.03…0.07
ZMC7V5	7.5	7…7.9	5	7	50	1	0.1	2	5	0.03…0.07
ZMC8V2	8.2	7.7…8.7	5	7	50	1	0.1	2	6.2	0.03…0.08
ZMC9V1	9.1	8.5…9.6	5	10	50	1	0.1	2	6.8	0.03…0.09
ZMC10	10	9.4…10.6	5	15	70	1	0.1	2	7.5	0.03…0.1
ZMC11	11	10.4…11.6	5	20	70	1	0.1	2	8.2	0.03…0.11
ZMC12	12	11.4…12.7	5	20	90	1	0.1	2	9.1	0.03…0.11
ZMC13	13	12.4…14.1	5	26	110	1	0.1	2	10	0.03…0.11
ZMC15	15	13.8…15.6	5	30	110	1	0.1	2	11	0.03…0.11
ZMC16	16	15.3…17.1	5	40	170	1	0.1	2	12	0.03…0.11
ZMC18	18	16.8…19.1	5	50	170	1	0.1	2	13	0.03…0.11
ZMC20	20	18.8…21.2	5	55	220	1	0.1	2	15	0.03…0.11
ZMC22	22	20.8…23.3	5	55	220	1	0.1	2	16	0.04…0.12
ZMC24	24	22.8…25.6	5	80	220	1	0.1	2	18	0.04…0.12
ZMC27	27	25.1…28.9	5	80	220	1	0.1	2	20	0.04…0.12
ZMC30	30	28…32	5	80	220	1	0.1	2	22	0.04…0.12
ZMC33	33	31…35	5	80	220	1	0.1	2	24	0.04…0.12
ZMC36	36	34…38	5	80	220	1	0.1	2	27	0.04…0.12
ZMC39	39	37…41	2.5	90	500	0.5	0.1	5	30	0.04…0.12
ZMC43	43	40…46	2.5	90	500	0.5	0.1	5	33	0.04…0.12
ZMC47	47	44…50	2.5	110	600	0.5	0.1	5	36	0.04…0.12
ZMC51	51	48…54	2.5	125	700	0.5	0.1	10	39	0.04…0.12
ZMC56	56	52…60	2.5	135	700	0.5	0.1	10	43	0.04…0.12
ZMC62	62	58…66	2.5	150	1000	0.5	0.1	10	47	0.04…0.12
ZMC68	68	64…72	2.5	200	1000	0.5	0.1	10	51	0.04…0.12
ZMC75	75	70…79	2.5	250	1000	0.5	0.1	10	56	0.04…0.12

[1] Tested with pulse t_p = 20 ms.

[2] 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.