ZMM2.4 - ZMM75

ZENER DIODES

V_Z : 2.4 to 75V
P_D : 500mW

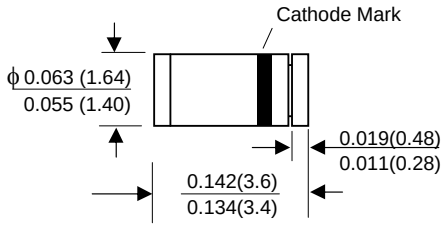
FEATURES :

* Silicon planar zener diodes
* In MiniMELF case especially for automatic insertion
* Standard zener voltage tolerance is ± 5%
* Other zener voltages are available upon request.
* These diodes are also available in DO-35 case with the type designation ZPD2.7 ... ZPD75
* Pb / RoHS Free

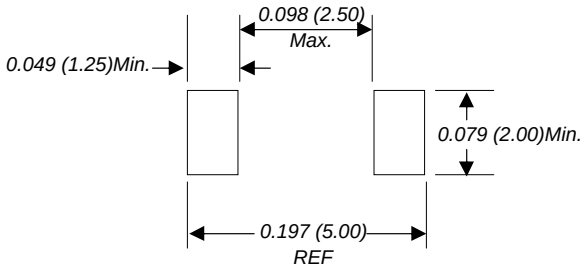
MECHANICAL DATA :

* Case : MiniMELF Glass Case (SOD-80C)
* Weight : 0.05 gram (approximately)

MiniMELF (SOD-80C)



Mounting Pad Layout



Dimensions in inches and (millimeters)

Maximum Ratings and Thermal Characteristics

Rating at 25 °C ambient temperature unless otherwise specified

Parameter	Symbol	Value	Unit
Zener Current see Table "Characteristics"			
Maximum Forward Voltage at I_F = 200 mA.	V_F	1.25	V
Power Dissipation at T_{flange} = 75°C	P_D	500(1)	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	300(1)	°C/W
Junction temperature	T_J	175	°C
Storage temperature range	T_S	-65 to + 150	°C

Note: (1) Valid provided that electrodes are kept at ambient temperature

ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified

Type	Zener Voltage V_Z @ I_{ZT}		Dynamic Resistance at I_Z=5mA f = 1 kHz	Dynamic Resistance at I_Z=1mA f = 1 kHz	Maximum Reverse Leakage Current		Temp. coefficient of Zener Voltage		Admissible Zener Current
	Nom[1]	I_{ZT}			I_R	at V_R	$\alpha_{vz}(10^{-4}$ / °C)		I_Z
	(V)	(mA)	r_{zj} (Ω)	r_{zj} (Ω)	(µA)	(V)	min.	max.	(mA)
ZMM2.4	2.4	5	< 100	< 600	50	0.8	-10	-5	175
ZMM2.7	2.7	5	75 (< 83)	< 500	20	0.8	-9	-4	160
ZMM3.0	3.0	5	80 (< 95)	< 500	10	0.8	-9	-3	140
ZMM3.3	3.3	5	80 (< 95)	< 500	6.0	0.8	-8	-3	130
ZMM3.6	3.6	5	80 (< 95)	< 500	6.0	0.8	-8	-3	120
ZMM3.9	3.9	5	80 (< 95)	< 500	1.6	0.8	-7	-3	110
ZMM4.3	4.3	5	80 (< 95)	< 500	1.0	0.8	-6	-1	100
ZMM4.7	4.7	5	70 (< 78)	< 500	0.1	0.8	-5	+2	90
ZMM5.1	5.1	5	30 (< 60)	< 480	0.1	0.8	-3	+4	80
ZMM5.6	5.6	5	10 (< 40)	< 400	0.1	1	-2	+6	70
ZMM6.2	6.2	5	4.8 (< 10)	< 200	0.1	2	-1	+7	64
ZMM6.8	6.8	5	4.5 (< 8)	< 150	0.1	3	+2	+7	58
ZMM7.5	7.5	5	4 (< 7)	< 50	0.1	5	+3	+7	53
ZMM8.2	8.2	5	4.5 (< 7)	< 50	0.1	6	+4	+7	47
ZMM9.1	9.1	5	4.8 (< 10)	< 50	0.1	7	+5	+8	43
ZMM10	10	5	5.2 (< 15)	< 70	0.1	7.5	+5	+8	40
ZMM11	11	5	6 (< 20)	< 70	0.1	8.5	+5	+9	36
ZMM12	12	5	7 (< 20)	< 90	0.1	9	+6	+9	32
ZMM13	13	5	9 (< 25)	< 110	0.1	10	+7	+9	29
ZMM15	15	5	11 (< 30)	< 110	0.1	11	+7	+9	27
ZMM16	16	5	13 (< 40)	< 170	0.1	12	+8	+9.5	24
ZMM18	18	5	18 (< 50)	< 170	0.1	14	+8	+9.5	21
ZMM20	20	5	20 (< 50)	< 220	0.1	15	+8	+10	20
ZMM22	22	5	25 (< 55)	< 220	0.1	17	+8	+10	18
ZMM24	24	5	28 (< 80)	< 220	0.1	18	+8	+10	16
ZMM27	27	5	30 (< 80)	< 250	0.1	20	+8	+10	14
ZMM30	30	5	35 (< 80)	< 250	0.1	22.5	+8	+10	13
ZMM33	33	5	40 (< 80)	< 250	0.1	25	+8	+10	12
ZMM36	36	5	40 (< 90)	< 250	0.1	27	+8	+10	11
ZMM39	39	5	50 (< 90)	< 300	0.1	29	+10	+12	10
ZMM43	43	5	60 (< 100)	< 700	0.1	32	+10	+12	9.2
ZMM47	47	5	70 (< 100)	< 750	0.1	35	+10	+12	8.5
ZMM51	51	5	70 (< 100)	< 750	0.1	38	+10	+12	7.8
ZMM56	56	2.5	< 135[3]	< 1000[4]	0.1	42	+10 (typ.)		7.1
ZMM62	62	2.5	< 150[3]	< 1000[4]	0.1	47	+ 10 (typ.)		6.4
ZMM68	68	2.5	< 200[3]	< 1000[4]	0.1	51	+ 10 (typ.)		5.8
ZMM75	75	2.5	< 250[3]	<1500[4]	0.1	55	+ 10 (typ.)		5.3

Notes:

(1) Tested with pulses tp = 5 ms

(2) Valid Provided that leads are kept at ambient temperature.

(3) at I_Z = 2.5mA

(4) at I_Z = 0.5mA