SYNSEMI SEMICONDUCTOR

ZMM5225B - ZMM5267B

ZENER DIODES

V_Z : 3.0 to 75V
P_D : 500mW

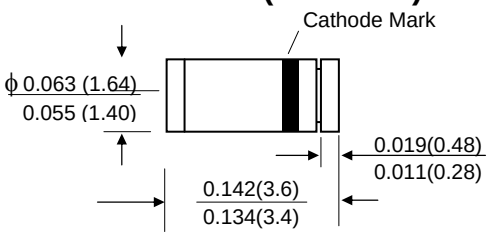
FEATURES :

- Silicon planar zener diodes
- Standard Zener voltage tolerance is ±5%
- Other tolerances are available upon request.
- These diodes are also available in the DO-35 case with the type designation 1N5225B … 1N5267B,
- Pb / RoHS Free

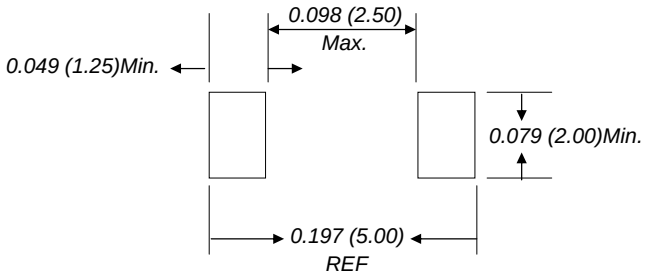
MECHANICAL DATA :

* 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 specifie.

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

Rev. 02 : March 25, 2005

SYNSEMI SEMICONDUCTOR

ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specifie

Type	Nominal Zener Voltage (3) V_Z @ I_{ZT}	Test Current I_{ZT}	Maximum Zener Impedance (1) Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK} = 0.25mA	Maximum Reverse Leakage Current I_R @ V_R		Typical Temperature Coefficient α_{VZ}(%/ °C)	Maximum Regulator Current(2) I_{ZM}
	(V)	(mA)	(Ω)	(Ω)	(μA)	(V)		(mA)
ZMM5225B	3.0	20	29	1600	50	1.0	-0.075	152
ZMM5226B	3.3	20	28	1600	25	1.0	-0.070	138
ZMM5227B	3.6	20	24	1700	15	1.0	-0.065	126
ZMM5228B	3.9	20	23	1900	10	1.0	-0.060	115
ZMM5229B	4.3	20	22	2000	5.0	1.0	-0.055	106
ZMM5230B	4.7	20	19	1900	5.0	2.0	±0.030	97
ZMM5231B	5.1	20	17	1600	5.0	2.0	±0.030	89
ZMM5232B	5.6	20	11	1600	5.0	3.0	+0.038	81
ZMM5233B	6.0	20	7	1600	5.0	3.5	+0.038	76
ZMM5234B	6.2	20	7	1000	5.0	4.0	+0.045	73
ZMM5235B	6.8	20	5	750	3.0	5.0	+0.050	67
ZMM5236B	7.5	20	6	500	3.0	6.0	+0.058	61
ZMM5237B	8.2	20	8	500	3.0	6.5	+0.062	55
ZMM5238B	8.7	20	8	600	3.0	6.5	+0.065	52
ZMM5239B	9.1	20	10	600	3.0	7.0	+0.068	50
ZMM5240B	10	20	17	600	3.0	7.0	+0.075	45
ZMM5241B	11	20	22	600	2.0	8.4	+0.076	41
ZMM5242B	12	20	30	600	1.0	9.1	+0.077	38
ZMM5243B	13	9.5	13	600	0.5	9.9	+0.079	35
ZMM5244B	14	9.0	15	600	0.1	10.0	+0.082	32
ZMM5245B	15	8.5	16	600	0.1	11	+0.082	30
ZMM5246B	16	7.8	17	600	0.1	12	+0.083	28
ZMM5247B	17	7.4	19	600	0.1	13	+0.084	27
ZMM5248B	18	7.0	21	600	0.1	14	+0.085	25
ZMM5249B	19	6.6	23	600	0.1	14	+0.086	24
ZMM5250B	20	6.2	25	600	0.1	15	+0.086	23
ZMM5251B	22	5.6	29	600	0.1	17	+0.087	21
ZMM5252B	24	5.2	33	600	0.1	18	+0.088	19.1
ZMM5253B	25	5	35	600	0.1	19	+0.089	18.2
ZMM5254B	27	4.6	41	600	0.1	21	+0.090	16.8
ZMM5255B	28	4.5	44	600	0.1	21	+0.091	16.2
ZMM5256B	30	4.2	49	600	0.1	23	+0.091	15.1
ZMM5257B	33	3.8	58	700	0.1	25	+0.092	13.8
ZMM5258B	36	3.4	70	700	0.1	27	+0.093	12.6
ZMM5259B	39	3.2	80	800	0.1	30	+0.094	11.6
ZMM5260B	43	3.0	93	900	0.1	33	+0.095	10.6
ZMM5261B	47	2.7	105	1000	0.1	36	+0.095	9.7
ZMM5262B	51	2.5	125	1100	0.1	39	+0.096	8.9
ZMM5263B	56	2.2	150	1300	0.1	43	+0.096	-
ZMM5264B	60	2.1	170	1400	0.1	46	+0.097	-
ZMM5265B	62	2.0	185	1400	0.1	47	+0.098	-
ZMM5266B	68	1.8	230	1600	0.1	52	+0.097	-
ZMM5267B	75	1.7	270	1700	0.1	56	+0.098	-

Notes :

(1) The Zener impedance is derived from the 1kHz AC voltage which results when an AC current having an RMS value equal to 10% of the Zener current (I_{ZT} or I_{ZK}) is superimposed on I_{ZT} or I_{ZK}. Zener impedance is measured at two points to insure a sharp knee on the breakdown curve and to eliminate unstable units

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

(3) Standard Zener voltage tolerance is ± 5% tolerance.