ZMM5225 THRU ZMM5262

SILICON PLANAR ZENER DIODES

Features

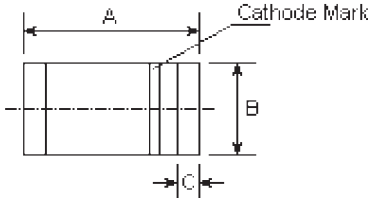
Silicon Planar Zener Diodes
Standard Zener voltage tolerance is ± 20%. Add suffix “A” for ± 10% tolerance and suffix “B” for ± 5% tolerance. Other tolerances, non standard and higher Zener voltages upon request.

These diodes are also availabel in DO-35 case with the type designation 1N5225 thru 1N5262.

These diodes are delivered typed.
Details see “Taping”.

Weight approx. : 0.13g

MiniMELF



DIMENSIONS					
DIM	inches		mm		Note
	Min.	Max.	Min.	Max.	
A	0.134	0.142	3.4	3.6	
B	0.055	0.059	1.40	1.50	Φ
C	0.008	0.016	0.2	0.4	

Absolute Maximum Ratings (T_a=25℃)

	Symbols	Values	Units
Zener current see Table "Characteristics"			
Power dissipation at T_{amb}=75℃	P_{tot}	500 [1]	mW
Junction temperature	T_j	175	℃
Storage temperature range	T_S	-65 to +175	℃

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

Characteristics at T_{amb}=25℃

	Symbols	Min.	Typ.	Max.	Units
Thermal resistance junction to ambient Air	R_{thA}	-	-	0.3 [1]	K/mW
Forward voltage at I_F=200mA	V_F	-	-	1.1	V

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

Type	Nominal Zener voltage [3]	Test current	Maximum Zener Impedance [1]		Maximum reverse leakage current			Maximum regulator current [2]	Typical temperature coefficient
	at I_{ZT} V_Z	I_{ZT}	at I_{ZT} Z_{ZT}	at I_{ZK}=0.25mA Z_{ZK}	I_R	Test voltage Suffix A	Suffix B	I_{ZM}	α_{VZ}
	V	mA	Ω	Ω	uA	V_R V	V_R V	mA	%/K
ZMM5225	3.0	20	29	1600	50	0.95	1.0	152	-0.075
ZMM5226	3.3	20	28	1600	25	0.95	1.0	138	-0.070
ZMM5227	3.6	20	24	1700	15	0.95	1.0	126	-0.065
ZMM5228	3.9	20	23	1900	10	0.95	1.0	115	-0.060
ZMM5229	4.3	20	22	2000	5	0.95	1.0	106	-0.055
ZMM5230	4.7	20	19	1900	5	1.9	2.0	97	±0.030
ZMM5231	5.1	20	17	1600	5	1.9	2.0	89	±0.030
ZMM5232	5.6	20	11	1600	5	2.9	3.0	81	+0.038
ZMM5233	6.0	20	7	1600	5	3.3	3.5	76	+0.038
ZMM5234	6.2	20	7	1000	5	3.8	4.0	73	+0.045
ZMM5235	6.8	20	5	750	3	4.8	5.0	67	+0.050
ZMM5236	7.5	20	6	500	3	5.7	6.0	61	+0.058
ZMM5237	8.2	20	8	500	3	6.2	6.5	55	+0.062
ZMM5238	8.7	20	8	600	3	6.2	6.5	52	+0.065
ZMM5239	9.1	20	10	600	3	6.7	7.0	50	+0.068
ZMM5240	10	20	17	600	3	7.6	8.0	45	+0.075
ZMM5241	11	20	22	600	2	8.0	8.4	41	+0.076
ZMM5242	12	20	30	600	1	8.7	9.1	38	+0.077
ZMM5243	13	9.5	13	600	0.5	9.4	9.9	35	+0.079
ZMM5244	14	9.0	15	600	0.1	9.5	10	32	+0.082
ZMM5245	15	8.5	16	600	0.1	10.5	11	30	+0.082
ZMM5246	16	7.8	17	600	0.1	11.4	12	28	+0.083
ZMM5247	17	7.4	19	600	0.1	12.4	13	27	+0.084
ZMM5248	18	7.0	21	600	0.1	13.3	14	25	+0.085
ZMM5249	19	6.6	23	600	0.1	13.3	14	24	+0.086
ZMM5250	20	6.2	25	600	0.1	14.3	15	23	+0.086
ZMM5251	22	5.6	29	600	0.1	16.2	17	21	+0.087
ZMM5252	24	5.2	33	600	0.1	17.1	18	19.1	+0.087
ZMM5253	25	5.0	35	600	0.1	18.1	19	18.2	+0.089
ZMM5254	27	4.6	41	600	0.1	20	21	16.8	+0.090
ZMM5255	28	4.5	44	600	0.1	20	21	16.2	+0.091
ZMM5256	30	4.2	49	600	0.1	22	23	15.1	+0.091
ZMM5257	33	3.8	58	700	0.1	24	25	13.8	+0.092
ZMM5258	36	3.4	70	700	0.1	26	27	12.6	+0.093
ZMM5259	39	3.2	80	800	0.1	29	30	11.6	+0.094
ZMM5260	43	3.0	93	900	0.1	31	33	10.6	+0.095
ZMM5261	47	2.7	105	1000	0.1	34	36	9.7	+0.095
ZMM5262	51	2.5	125	1100	0.1	37	39	8.9	+0.096

Notes:

(1) The Zener Impedance is derived from the 60Hz 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) Measured under thermal equilibrium and DC test conditions.

RATINGS AND CHARACTERISTIC CURVES

Admissible power dissipation versus ambient temperature

Valid provided that electrodes are kept at ambient temperature