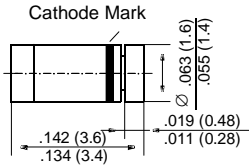


ZMM5225 THRU ZMM5267

ZENER DIODES

Mini-MELF



Dimensions are in inches and (millimeters)

FEATURES

- ♦ Silicon Planar Power Zener Diodes
- ♦ Standard Zener voltage tolerance is $\pm 5\%$ with a "B" suffix. Other tolerances are available upon request.
- ♦ These diodes are also available in the DO-35 case with the type designation 1N5225 ... 1N5267, SOT-23 case with the type designation MMBZ5225 ... MMBZ5267 and SOD-123 case with type designation MMSZ5225 ... MMSZ5267.



MECHANICAL DATA

Case: Mini-MELF Glass Case (SOD-80)

Weight: approx. 0.05 g

MAXIMUM RATINGS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOL	VALUE	UNIT
Zener Current (see Table "Characteristics")			
Power Dissipation at $T_{amb} = 75^{\circ}\text{C}$	P_{tot}	500 ⁽¹⁾	mW
Maximum Junction Temperature	T_j	175	°C
Storage Temperature Range	T_s	- 65 to +150	°C

	SYMBOL	MIN.	TYP.	MAX.	UNIT
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	—	—	300 ⁽¹⁾	°C/W
Forward Voltage at $I_F = 200 \text{ mA}$	V_F	—	—	1.1	Volts

NOTES

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

ZMM5225 THRU ZMM5267

ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Type	Nominal Zener Voltage ⁽³⁾ at I _{ZT} V _Z (V)	Test current I _{ZT} (mA)	Maximum Zener impedance ⁽¹⁾		Typical Temperature Coefficient α_{VZ} (%/K)	Maximum Reverse Leakage Current		Maximum regulator current ⁽²⁾ I _{ZM} (mA)
			at I _{ZT} Z _{ZT} (Ω)	at I _{ZK} =0.25mA Z _{ZK} (Ω)		I _R (μA)	Test Voltage V _R (V)	
ZMM5225	3.0	20	29	1600	− 0.075	50	1.0	152
ZMM5226	3.3	20	28	1600	− 0.070	25	1.0	138
ZMM5227	3.6	20	24	1700	− 0.065	15	1.0	126
ZMM5228	3.9	20	23	1900	− 0.060	10	1.0	115
ZMM5229	4.3	20	22	2000	− 0.055	5.0	1.0	106
ZMM5230	4.7	20	19	1900	±0.030	5.0	2.0	97
ZMM5231	5.1	20	17	1600	±0.030	5.0	2.0	89
ZMM5232	5.6	20	11	1600	+0.038	5.0	3.0	81
ZMM5233	6.0	20	7	1600	+0.038	5.0	3.5	76
ZMM5234	6.2	20	7	1000	+0.045	5.0	4.0	73
ZMM5235	6.8	20	5	750	+0.050	3.0	5.0	67
ZMM5236	7.5	20	6	500	+0.058	3.0	6.0	61
ZMM5237	8.2	20	8	500	+0.062	3.0	6.5	55
ZMM5238	8.7	20	8	600	+0.065	3.0	6.5	52
ZMM5239	9.1	20	10	600	+0.068	3.0	7.0	50
ZMM5240	10	20	17	600	+0.075	3.0	8.0	45
ZMM5241	11	20	22	600	+0.076	2.0	8.4	41
ZMM5242	12	20	30	600	+0.077	1.0	9.1	38
ZMM5243	13	9.5	13	600	+0.079	0.5	9.9	35
ZMM5244	14	9.0	15	600	+0.082	0.1	10	32
ZMM5245	15	8.5	16	600	+0.082	0.1	11	30
ZMM5246	16	7.8	17	600	+0.083	0.1	12	28
ZMM5247	17	7.4	19	600	+0.084	0.1	13	27
ZMM5248	18	7.0	21	600	+0.085	0.1	14	25
ZMM5249	19	6.6	23	600	+0.086	0.1	14	24
ZMM5250	20	6.2	25	600	+0.086	0.1	15	23
ZMM5251	22	5.6	29	600	+0.087	0.1	17	21
ZMM5252	24	5.2	33	600	+0.087	0.1	18	19.1
ZMM5253	25	5.0	35	600	+0.089	0.1	19	18.2
ZMM5254	27	4.6	41	600	+0.090	0.1	21	16.8
ZMM5255	28	4.5	44	600	+0.091	0.1	21	16.2
ZMM5256	30	4.2	49	600	+0.091	0.1	23	15.1
ZMM5257	33	3.8	58	700	+0.092	0.1	25	13.8
ZMM5258	36	3.4	70	700	+0.093	0.1	27	12.6
ZMM5259	39	3.2	80	800	+0.094	0.1	30	11.6
ZMM5260	43	3.0	93	900	+0.095	0.1	33	10.6
ZMM5261	47	2.7	105	1000	+0.095	0.1	36	9.7
ZMM5262	51	2.5	125	1100	+0.096	0.1	39	8.9
ZMM5263	56	2.2	150	1300	+0.096	0.1	43	—
ZMM5264	60	2.1	170	1400	+0.097	0.1	46	—
ZMM5265	62	2.0	185	1400	+0.097	0.1	47	—
ZMM5266	68	1.8	230	1600	+0.097	0.1	52	—
ZMM5267	75	1.7	270	1700	+0.098	0.1	56	—

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) Tested under thermal equilibrium and DC test conditions

RATINGS AND CHARACTERISTIC CURVES ZMM5225 THRU ZMM5267

Admissible power dissipation versus ambient temperature

Valid provided that electrodes are kept
at ambient temperature

