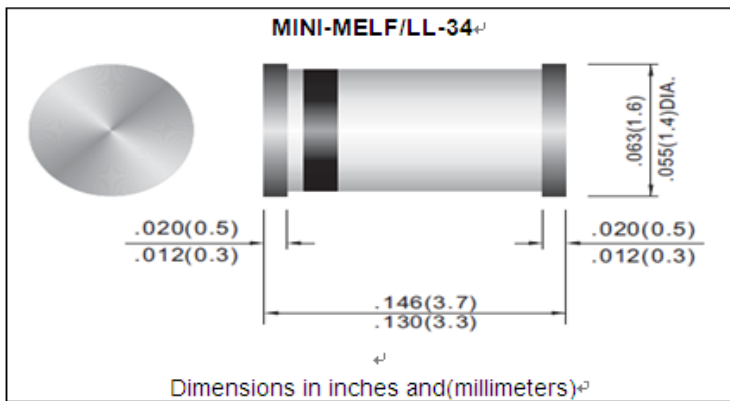


Zener Diodes



Features

- P_{tot} 500mW
- V_Z 2.4V-75V

■ Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Conditions	Max
Power dissipation	P_{tot}	mW	$R_{thJA} < 300^{\circ}\text{C/W}$	500
Zener current	I_Z	mA		P_{tot} / V_Z
Maximum junction temperature	T_j	$^{\circ}\text{C}$		175
Storage temperature range	T_{stg}	$^{\circ}\text{C}$		-65 to +175

■ Electrical Characteristics ($T_a=25^{\circ}\text{C}$ Unless otherwise specified)

Item	Symbol	Unit	Conditions	Max
Thermal resistance	$R_{\theta JA}$	$^{\circ}\text{C/W}$	junction to ambient air, on PC board 50mm×50mm×1.6mm	500
Forward voltage	V_F	V	$I_F=200\text{mA}$	1.1



ZMM52 SERIES

■Electrical Characteristics (T_A=25°C unless otherwise noted)

Part Number	Zener voltage range ¹⁾			Dynamic resistance		Test current		Reverse leakage current		Temperature Coefficient
	VZ			r _{ZT} at I _{ZT}	r _{ZK} at I _{ZK}	I _{ZT}	I _{ZK}	I _R at V _R		TK _{VZ}
	V			Ω	Ω	mA	mA	μA	V	%K
	Typ.	Min	Max	Typ.	Typ.					
ZMM5221B	2.4	2.28	2.52	< 30	< 1200	20	0.25	< 100	1	< - 0.085
ZMM5222B	2.5	2.37	2.63	< 30	< 1250	20	0.25	< 100	1	< - 0.085
ZMM5223B	2.7	2.56	2.84	< 30	< 1300	20	0.25	< 75	1	< - 0.080
ZMM5224B	2.8	2.66	2.94	< 30	< 1400	20	0.25	< 75	1	< - 0.080
ZMM5225B	3	2.85	3.15	< 29	< 1600	20	0.25	< 50	1	< - 0.075
ZMM5226B	3.3	3.13	3.47	< 28	< 1600	20	0.25	< 25	1	< - 0.070
ZMM5227B	3.6	3.42	3.78	< 24	< 1700	20	0.25	< 15	1	< - 0.065
ZMM5228B	3.9	3.70	4.10	< 23	< 1900	20	0.25	< 10	1	< - 0.060
ZMM5229B	4.3	4.08	4.52	< 22	< 2000	20	0.25	< 5	1	< ± 0.055
ZMM5230B	4.7	4.46	4.94	< 19	< 1900	20	0.25	< 5	2	< ± 0.030
ZMM5231B	5.1	4.84	5.36	< 17	< 1600	20	0.25	< 5	2	< ± 0.030
ZMM5232B	5.6	5.32	5.88	< 11	< 1600	20	0.25	< 5	3	< + 0.038
ZMM5233B	6	5.70	6.30	< 7	< 1600	20	0.25	< 5	3.5	< + 0.038
ZMM5234B	6.2	5.89	6.51	< 7	< 1000	20	0.25	< 5	4	< + 0.045
ZMM5235B	6.8	6.46	7.14	< 5	< 750	20	0.25	< 3	5	< + 0.050
ZMM5236B	7.5	7.12	7.88	< 6	< 500	20	0.25	< 3	6	< + 0.058
ZMM5237B	8.2	7.79	8.61	< 8	< 500	20	0.25	< 3	6.5	< + 0.062
ZMM5238B	8.7	8.26	9.14	< 8	< 600	20	0.25	< 3	6.5	< + 0.065
ZMM5239B	9.1	8.64	9.56	< 10	< 600	20	0.25	< 3	7	< + 0.068



ZMM52 SERIES

ZMM5240B	10	9.50	10.50	< 17	< 600	20	0.25	< 3	8	< + 0.075
ZMM5241B	11	10.45	11.55	< 22	< 600	20	0.25	< 2	8.4	< + 0.076
ZMM5242B	12	11.40	12.60	< 30	< 600	20	0.25	< 1	9.1	< + 0.077
ZMM5243B	13	12.35	13.65	< 13	< 600	9.5	0.25	< 0.5	9.9	< + 0.079
ZMM5244B	14	13.30	14.70	< 15	< 600	9	0.25	< 0.1	10	< + 0.082
ZMM5245B	15	14.25	15.75	< 16	< 600	8.5	0.25	< 0.1	11	< + 0.082
ZMM5246B	16	15.20	16.80	< 17	< 600	7.8	0.25	< 0.1	12	< + 0.083
ZMM5247B	17	16.15	17.85	< 19	< 600	7.4	0.25	< 0.1	13	< + 0.084
ZMM5248B	18	17.10	18.90	< 21	< 600	7	0.25	< 0.1	14	< + 0.085
ZMM5249B	19	18.05	19.95	< 23	< 600	6.6	0.25	< 0.1	14	< + 0.086
ZMM5250B	20	19.00	21.00	< 25	< 600	6.2	0.25	< 0.1	15	< + 0.086
ZMM5251B	22	20.90	23.10	< 29	< 600	5.6	0.25	< 0.1	17	< + 0.087
ZMM5252B	24	22.80	25.20	< 33	< 600	5.2	0.25	< 0.1	18	< + 0.088
ZMM5253B	25	23.75	26.25	< 35	< 600	5	0.25	< 0.1	19	< + 0.089
ZMM5254B	27	25.65	28.35	< 41	< 600	4.6	0.25	< 0.1	21	< + 0.090
ZMM5255B	28	26.60	29.40	< 44	< 600	4.5	0.25	< 0.1	21	< + 0.091
ZMM5256B	30	28.50	31.50	< 49	< 600	4.2	0.25	< 0.1	23	< + 0.091
ZMM5257B	33	31.35	34.65	< 58	< 700	3.8	0.25	< 0.1	25	< + 0.092
ZMM5258B	36	34.20	37.80	< 70	< 700	3.4	0.25	< 0.1	27	< + 0.093
ZMM5259B	39	37.05	40.95	< 80	< 800	3.2	0.25	< 0.1	30	< + 0.094
ZMM5260B	43	40.85	45.15	< 93	< 900	3	0.25	< 0.1	33	< + 0.095
ZMM5261B	47	44.65	49.35	105	< 1000	2.7	0.25	< 0.1	36	< + 0.095
ZMM5262B	51	48.45	53.55	125	< 1100	2.5	0.25	< 0.1	39	< + 0.096
ZMM5263B	56	53.20	58.80	150	< 1300	2.2	0.25	< 0.1	43	< + 0.096



ZMM52 SERIES

ZMM5264B	60	57.00	63.00	170	< 1400	2.1	0.25	< 0.1	46	< + 0.097
ZMM5265B	62	58.90	65.10	185	< 1400	2	0.25	< 0.1	47	< + 0.097
ZMM5266B	68	64.60	71.40	230	< 1600	1.8	0.25	< 0.1	52	< + 0.097
ZMM5267B	75	71.25	78.75	270	< 1700	1.7	0.25	< 0.1	56	< + 0.098

Notes:

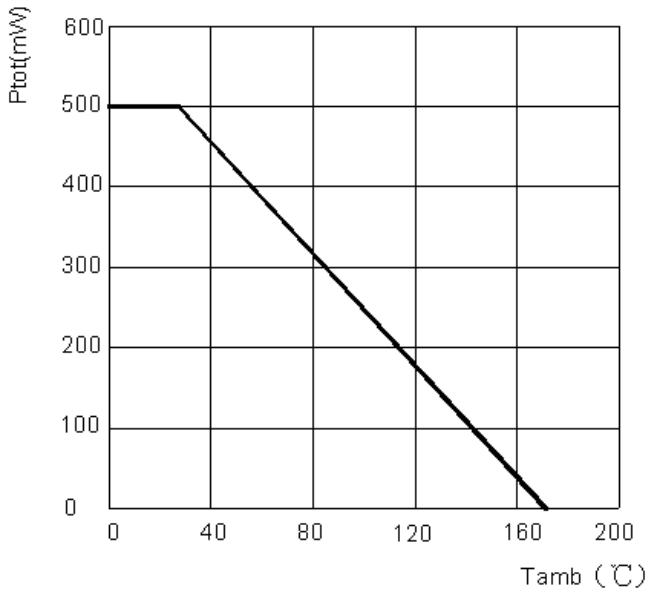
1. Based on dc-measurement at thermal equilibrium; case temperature maintained at $30^{\circ}\text{C} \pm 2^{\circ}\text{C}$

■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
ZMM52 SERIES	F1	Approximate 0.47	10000	10000	50000	7" reel

■ Characteristics(Typical)

FIG 1: Total Power Dissipation vs. Ambient Temperature





ZMM52 SERIES

Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website [http:// www.21yangjie.com](http://www.21yangjie.com) , or consult your nearest Yangjie's sales office for further assistance.