

MSKSEMI

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT

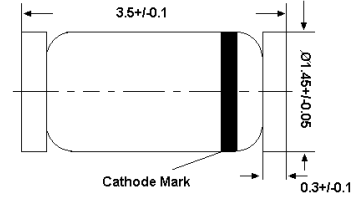


PLED

Product data sheet

www.msksemi.com

Standard zener voltage tolerance is $\pm 20\%$. Add suffix "A" for $\pm 10\%$ tolerance, suffix "B" for $\pm 5\%$ tolerance and suffix "C" for $\pm 2\%$ tolerance. Other tolerance, non standard and higher zener voltages are upon request.



Glass case MiniMELF
Dimensions in mm

LL-34

REEL SPECIFICATION

P/N	PKG	QTY
ZMM5221-ZMM5267	LL34	2500

Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Power Dissipation	P_{tot}	500 ¹⁾	mW
Junction Temperature	T_j	175	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to + 175	$^\circ\text{C}$

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

Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient Air	R_{thA}	0.3 ¹⁾	K/mW
Forward Voltage at $I_F = 200\text{ mA}$	V_F	1.1	V

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

Characteristics at T_a = 25 °C

Type	Zener Voltage Range ¹⁾				Dynamic Resistance			Reverse Current	
	V _{Znom}	V _{ZT}		at I _{ZT}	Z _{ZT}	Z _{ZK}	at I _{ZK}	I _R	at V _R
	(V)	Min. (V)	Max. (V)	(mA)	Max. (Ω)	Max. (Ω)	(mA)	Max. (μA)	(V)
ZMM5221B	2.4	2.28	2.52	20	30	1200	0.25	100	1
ZMM5222B	2.5	2.38	2.62	20	30	1250	0.25	100	1
ZMM5223B	2.7	2.57	2.83	20	30	1300	0.25	75	1
ZMM5224B	2.8	2.66	2.94	20	30	1400	0.25	75	1
ZMM5225B	3	2.85	3.15	20	29	1600	0.25	50	1
ZMM5226B	3.3	3.14	3.46	20	28	1600	0.25	25	1
ZMM5227B	3.6	3.42	3.78	20	24	1700	0.25	15	1
ZMM5228B	3.9	3.71	4.09	20	23	1900	0.25	10	1
ZMM5229B	4.3	4.09	4.51	20	22	2000	0.25	5	1
ZMM5230B	4.7	4.47	4.93	20	19	1900	0.25	5	2
ZMM5231B	5.1	4.85	5.35	20	17	1600	0.25	5	2
ZMM5232B	5.6	5.32	5.88	20	11	1600	0.25	5	3
ZMM5233B	6	5.7	6.3	20	7	1600	0.25	5	3.5
ZMM5234B	6.2	5.89	6.51	20	7	1000	0.25	5	4
ZMM5235B	6.8	6.46	7.14	20	5	750	0.25	3	5
ZMM5236B	7.5	7.13	7.87	20	6	500	0.25	3	6
ZMM5237B	8.2	7.79	8.61	20	8	500	0.25	3	6.5
ZMM5238B	8.7	8.27	9.13	20	8	600	0.25	3	6.5
ZMM5239B	9.1	8.65	9.55	20	10	600	0.25	3	7
ZMM5240B	10	9.5	10.5	20	17	600	0.25	3	8
ZMM5241B	11	10.45	11.55	20	22	600	0.25	2	8.4
ZMM5242B	12	11.4	12.6	20	30	600	0.25	1	9.1
ZMM5243B	13	12.35	13.65	9.5	13	600	0.25	0.5	9.9
ZMM5244B	14	13.3	14.7	9	15	600	0.25	0.1	10
ZMM5245B	15	14.25	15.75	8.5	16	600	0.25	0.1	11
ZMM5246B	16	15.2	16.8	7.8	17	600	0.25	0.1	12
ZMM5247B	17	16.15	17.85	7.4	19	600	0.25	0.1	13
ZMM5248B	18	17.1	18.9	7.0	21	600	0.25	0.1	14
ZMM5249B	19	18.05	19.95	6.6	23	600	0.25	0.1	14
ZMM5250B	20	19	21	6.2	25	600	0.25	0.1	15
ZMM5251B	22	20.9	23.1	5.6	29	600	0.25	0.1	17
ZMM5252B	24	22.8	25.2	5.2	33	600	0.25	0.1	18
ZMM5253B	25	23.75	26.25	5	35	600	0.25	0.1	19
ZMM5254B	27	25.65	28.35	4.6	41	600	0.25	0.1	21
ZMM5255B	28	26.6	29.4	4.4	44	600	0.25	0.1	21
ZMM5256B	30	28.5	31.5	4.2	49	600	0.25	0.1	23
ZMM5257B	33	31.35	34.65	3.8	58	700	0.25	0.1	25
ZMM5258B	36	34.2	37.8	3.4	70	700	0.25	0.1	27
ZMM5259B	39	37.05	40.95	3.2	80	800	0.25	0.1	30
ZMM5260B	43	40.85	45.15	3	93	900	0.25	0.1	33
ZMM5261B	47	44.65	49.35	2.7	105	1000	0.25	0.1	36
ZMM5262B	51	48.45	53.55	2.5	125	1100	0.25	0.1	39
ZMM5263B	56	53.2	58.8	2.2	150	1300	0.25	0.1	45
ZMM5264B	60	57	63	2.1	170	1400	0.25	0.1	46
ZMM5265B	62	58.9	65.1	2	185	1400	0.25	0.1	47
ZMM5266B	68	64.6	71.4	1.8	230	1600	0.25	0.1	52
ZMM5267B	75	71.25	78.75	1.7	270	1700	0.25	0.1	56

¹⁾ Tested with pulses t_p = 20 ms.

Attention

- Any and all MSKSEMI Semiconductor products described or contained herein do not have specifications that can handle applications that require extremely high levels of reliability, such as life-support systems, aircraft's control systems, or other applications whose failure can be reasonably expected to result in serious physical and/or material damage. Consult with your MSKSEMI Semiconductor representative nearest you before using any MSKSEMI Semiconductor products described or contained herein in such applications.
- MSKSEMI Semiconductor assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all MSKSEMI Semiconductor products described or contained herein.
- Specifications of any and all MSKSEMI Semiconductor products described or contained herein stipulate the performance, characteristics, and functions of the described products in the independent state, and are not guarantees of the performance, characteristics, and functions of the described products as mounted in the customer's products or equipment. To verify symptoms and states that cannot be evaluated in an independent device, the customer should always evaluate and test devices mounted in the customer's products or equipment.
- MSKSEMI Semiconductor strives to supply high-quality high-reliability products. However, any and all semiconductor products fail with some probability. It is possible that these probabilistic failures could give rise to accidents or events that could endanger human lives, that could give rise to smoke or fire, or that could cause damage to other property. When designing equipment, adopt safety measures so that these kinds of accidents or events cannot occur. Such measures include but are not limited to protective circuits and error prevention circuits for safe design, redundant design, and structural design.
- In the event that any or all MSKSEMI Semiconductor products (including technical data, services) described or contained herein are controlled under any of applicable local export control laws and regulations, such products must not be exported without obtaining the export license from the authorities concerned in accordance with the above law.
- No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording, or any information storage or retrieval system, or otherwise, without the prior written permission of MSKSEMI Semiconductor.
- Information (including circuit diagrams and circuit parameters) herein is for example only ; it is not guaranteed for volume production. MSKSEMI Semiconductor believes information herein is accurate and reliable, but no guarantees are made or implied regarding its use or any infringement of intellectual property rights or other rights of third parties.
- Any and all information described or contained herein are subject to change without notice due to product/technology improvement, etc. When designing equipment, refer to the "Delivery Specification" for the MSKSEMI Semiconductor product that you intend to use.

单击下面可查看定价，库存，交付和生命周期等信息

[>>MSKSEMI\(美森科\)](#)