



MM5Z2V4-MM5Z75 ZENER DIODES

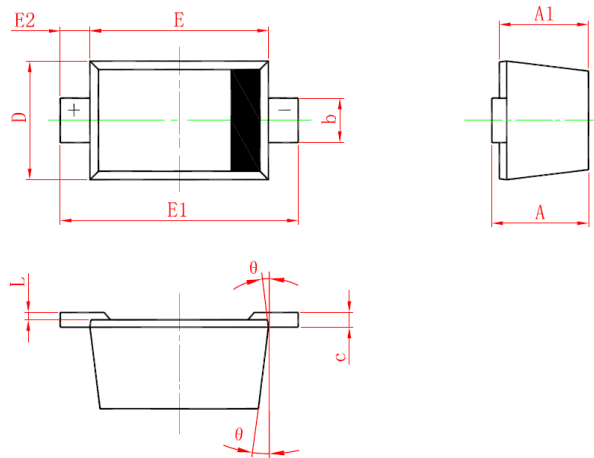
Features:

- Silicon planar power zener diodes
- Other tolerances are available upon request.
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Mechanical Characteristics:

Case: Void- free, transfer-molded, thermosetting plastic
Epoxy Meets UL 94 V-0
Lead Finish: 100% Matte Sn (Tin)
Mounting Position: Any
Qualified Max Reflow Temperature: 260°C
Zener diodes, SMD solderable, Single device per housing, 2 leads

Mechanical Dimensions (Inches /mm) and Marking:



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.510	0.770	0.020	0.031
A1	0.500	0.700	0.020	0.028
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	0.750	0.850	0.030	0.033
E	1.100	1.300	0.043	0.051
E1	1.500	1.700	0.059	0.067
E2	0.200 REF		0.008 REF	
L	0.010	0.070	0.001	0.003
θ	7° REF		7° REF	

SOD-523



Ordering Information:

Device	Package	Shipping
MM5Z2V4-MM5Z75	SOD-523 (Pb-Free)	8000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Max. reverse (working) voltage	V_R	@ 30mA Pulse, $T_J = 25\text{ }^\circ\text{C}$	5.5	V

* Pulse Width < 300 μ s, Duty Cycle <2%

Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Max. Junction Temperature	T_J	-	-65 to +150	$^\circ\text{C}$
Max. Storage Temperature	T_{stg}	-	-65 to +150	$^\circ\text{C}$
Min. Power dissipation	P_D	-	250	mW
Case Style	SOD-523			



Electrical Characteristics($T_J = 25\text{ }^\circ\text{C}$ unless otherwise noted, $V_F = 0.9\text{ V Max.}$ @ $I_F = 10\text{ mA}$)

Device	Device marking	Zener voltage(Note 1)				Zener Impedence			Leakage Current		ΘV_z (Mv/k) @ I_{ZT}		C @ $V_R=0$ f=1M Hz pF
		V_z (volte)			@ I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}		I_R @ V_R		Min	Max	
		Min	Nom	Max	mA	Ω	Ω	mA	uA	Volts	Min	Max	
MM5Z2V4	00	2.2	2.4	2.6	5	100	1000	1	50	1	-3.5	0	450
MM5Z2V7	01	2.5	2.7	2.9	5	100	1000	1	20	1	-3.5	0	450
MM5Z3V0	02	2.8	3	3.2	5	100	1000	1	10	1	-3.5	0	450
MM5Z3V3	05	3.1	3.3	3.5	5	95	1000	1	5	1	-3.5	0	450
MM5Z3V6	06	3.4	3.6	3.8	5	90	1000	1	5	1	-3.5	0	450
MM5Z3V9	07	3.7	3.9	4.1	5	90	1000	1	3	1	-3.5	-2.5	450
MM5Z4V3	08	4.0	4.3	4.6	5	90	1000	1	3	1	-3.5	0	450
MM5Z4V7	09	4.4	4.7	5.0	5	80	800	1	3	2	-3.5	0.2	260
MM5Z5V1	0A	4.8	5.1	5.4	5	60	500	1	2	2	-2.7	1.2	225
MM5Z5V6	0C	5.2	5.6	6.0	5	40	200	1	1	2	-2.0	2.5	200
MM5Z6V2	0E	5.8	6.2	6.6	5	10	100	1	3	4	0.4	3.7	185
MM5Z6V8	0F	6.4	6.8	7.2	5	15	160	1	2	4	1.2	4.5	155
MM5Z7V5	0G	7.0	7.5	7.9	5	15	160	1	1	5	2.5	5.3	140
MM5Z8V2	0H	7.7	8.2	8.7	5	15	160	1	0.7	5	3.2	6.2	135
MM5Z9V1	0K	8.5	9.1	9.6	5	15	160	1	0.2	7	3.8	7.0	130
MM5Z10	0L	9.4	10	10.6	5	20	160	1	0.1	8	4.5	8.0	130
MM5Z11	0M	10.4	11	11.6	5	20	160	1	0.1	8	5.4	9.0	130
MM5Z12	0N	11.4	12	12.7	5	25	80	1	0.1	8	6.0	10	130
MM5Z13	0P	12.4	13	14.1	5	30	80	1	0.1	8	7.0	11	120
MM5Z15	0T	14.2	15	15.8	5	30	80	1	0.005	10.5	9.2	13	110
MM5Z16	0U	15.3	16	17.1	5	40	80	1	0.005	11.2	10.4	14	105
MM5Z18	0W	16.8	18	19.1	5	45	80	1	0.005	12.6	12.4	16	100
MM5Z20	0Z	18.8	20	21.2	5	55	100	1	0.005	14	14.4	18	85
MM5Z22	10	20.8	22	23.3	5	55	100	1	0.005	15.4	16.4	20	85
MM5Z24	11	22.8	24	25.6	5	70	120	1	0.005	16.8	18.4	22	80
MM5Z27	12	25.1	27	28.9	2	80	300	1	0.005	18.9	21.4	25.3	70
MM5Z30	14	28	30	32	2	80	300	1	0.005	21	24.4	29.4	70
MM5Z33	18	31	33	35	2	80	300	1	0.005	23.2	27.4	33.4	70
MM5Z36	19	34	36	38	2	90	500	1	0.005	25.2	30.4	37.4	70
MM5Z39	20	37	39	41	2	130	500	1	0.005	27.3	33.4	41.2	45
MM5Z43	21	40	43	46	2	150	500	1	0.005	30.1	37.6	46.6	40
MM5Z47	1A	44	47	50	2	170	500	1	0.005	32.9	42.0	51.8	40
MM5Z51	1C	48	51	54	2	180	500	1	0.005	35.7	46.6	57.2	40
MM5Z56	1D	52	56	60	2	200	500	1	0.005	39.2	52.2	63.8	40
MM5Z62	1E	58	62	66	2	215	500	1	0.005	43.4	58.8	71.6	35
MM5Z68	1F	64	68	72	2	240	500	1	0.005	47.6	65.6	79.8	35
MM5Z75	1G	70	75	79	2	255	500	1	0.005	52.5	73.4	88.6	35



DISCLAIMER:

- 1- The information given herein, including the specifications and dimensions, is subject to change without prior notice to improve product characteristics. Before ordering, purchasers are advised to contact the SMC - Sangdest Microelectronics (Nanjing) Co., Ltd sales department for the latest version of the datasheet(s).
- 2- In cases where extremely high reliability is required (such as use in nuclear power control, aerospace and aviation, traffic equipment, medical equipment, and safety equipment), safety should be ensured by using semiconductor devices that feature assured safety or by means of users' fail-safe precautions or other arrangement.
- 3- In no event shall SMC - Sangdest Microelectronics (Nanjing) Co., Ltd be liable for any damages that may result from an accident or any other cause during operation of the user's units according to the datasheet(s). SMC - Sangdest Microelectronics (Nanjing) Co., Ltd assumes no responsibility for any intellectual property claims or any other problems that may result from applications of information, products or circuits described in the datasheets.
- 4- In no event shall SMC - Sangdest Microelectronics (Nanjing) Co., Ltd be liable for any failure in a semiconductor device or any secondary damage resulting from use at a value exceeding the absolute maximum rating.
- 5- No license is granted by the datasheet(s) under any patents or other rights of any third party or SMC - Sangdest Microelectronics (Nanjing) Co., Ltd.
- 6- The datasheet(s) may not be reproduced or duplicated, in any form, in whole or part, without the expressed written permission of SMC - Sangdest Microelectronics (Nanjing) Co., Ltd.
- 7- The products (technologies) described in the datasheet(s) are not to be provided to any party whose purpose in their application will hinder maintenance of international peace and safety nor are they to be applied to that purpose by their direct purchasers or any third party. When exporting these products (technologies), the necessary procedures are to be taken in accordance with related laws and regulations..