DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

MMSZ5221B THRU MMSZ5259B

TECHNICAL SPECIFICATIONS OF SURFACE MOUNT SILICON ZENER DIODES

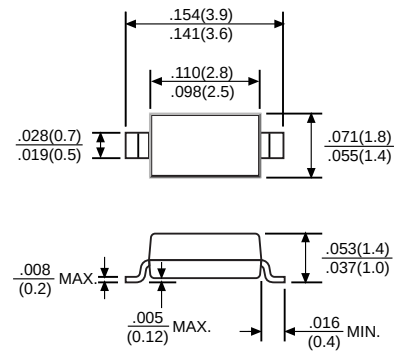
FEATURES

* Planar Die construction
* Zener Voltages from 2.4V - 39V
* 500mW Power Dissipation
* Ideally Suited for Automated Assembly Processes

MECHANICAL DATA

* Case: Molded Plastic
* Terminals:Solder plated, solderable per MIL-STD-202, Method 208
* Polarity: See Diagram Below
* Mounting position: Any
* Weight: 0.008 gram Approx.

SOD-123



Dimensions in inches(millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

	SYMBOL	VALUE	UNITS
Zener Current see Table "Characteristics"			
Power Dissipation (Notes 1) at Tamb=25°C	Ptot	500	mW
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) (Notes 2)	I_{FSM}	4.0	Amps
Maximum Forward Voltage at I_F=100mA	V_F	1.2	Volts
Operating and Storage Temperature	T_J,Tstg	-55 to + 150	°C

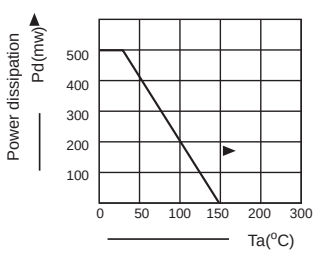
Notes: 1. Mounted on 5.0mm² (.013mm thick) land areas.
2. Measured on 8.3ms, single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum.

RATING AND CHARACTERISTIC CURVES (MMSZ5221B THRU MMSZ5259B)

TYPE	Nominal Zener Voltage $V_Z@I_{ZT}$	Zener Test Current I_{ZT}	Maximum Zener Impedance		I_{ZK}	Maximum Reverse Leakage Current		Typical Temperature Coefficient	Max. Zener Current $I_{ZM}@T_A$	Marking Code
			$Z_{ZT}@I_{ZT}$	$Z_{ZT}@I_{ZK}$		I_R @ V_R				
	Volts	mA	Ohms	Ohms	mA	μA	Volts	% / °C	mA	
MMSZ5221B	2.4	20	30	1200	0.25	100	1.0	-0.070	188	C1
MMSZ5222B	2.5	20	30	1250	0.25	100	1.0	-0.065	180	C2
MMSZ5223B	2.7	20	30	1300	0.25	75	1.0	-0.060	167	C3
MMSZ5225B	3.0	20	30	1600	0.25	50	1.0	-0.055	150	C5
MMSZ5226B	3.3	20	28	1600	0.25	25	1.0	±0.030	136	D1
MMSZ5227B	3.6	20	24	1700	0.25	15	1.0	±0.030	126	D2
MMSZ5228B	3.9	20	23	1900	0.25	10	1.0	+0.038	115	D3
MMSZ5229B	4.3	20	22	2000	0.25	5	1.0	+0.038	106	D4
MMSZ5230B	4.7	20	19	1900	0.25	5	2.0	+0.045	97	D5
MMSZ5231B	5.1	20	17	1600	0.25	5	2.0	+0.050	89	E1
MMSZ5232B	5.6	20	11	1600	0.25	5	3.0	+0.058	81	E2
MMSZ5233B	6.0	20	9	1600	0.25	5	3.5	+0.060	76	E3
MMSZ5234B	6.2	20	7	1000	0.25	5	4.0	+0.062	73	E4
MMSZ5235B	6.8	20	5	750	0.25	3	5.0	+0.065	67	E5
MMSZ5236B	7.5	20	6	500	0.25	3	6.0	+0.068	61	F1
MMSZ5237B	8.2	20	8	500	0.25	3	6.0	+0.075	55	F2
MMSZ5238B	8.7	20	9	600	0.25	3	6.5	+0.075	52	F3
MMSZ5239B	9.1	20	10	600	0.25	3	6.5	+0.076	50	F4
MMSZ5240B	10	20	17	600	0.25	3	8.0	+0.077	45	F5
MMSZ5241B	11	20	22	600	0.25	3	8.4	+0.079	41	H1
MMSZ5242B	12	20	30	600	0.25	2	9.1	+0.082	38	H2
MMSZ5243B	13	9.5	13	600	0.25	1	9.9	+0.082	35	H3
MMSZ5244B	14	9.0	14	600	0.25	0.5	10	+0.082	32	H4
MMSZ5245B	15	8.5	16	600	0.25	0.1	11	+0.083	30	H5
MMSZ5246B	16	7.8	17	600	0.25	0.1	12	+0.084	28	J1
MMSZ5247B	17	7.4	19	600	0.25	0.1	13	+0.084	27	J2
MMSZ5248B	18	7.0	21	600	0.25	0.1	14	+0.085	25	J3
MMSZ5249B	19	6.6	23	600	0.25	0.1	14	+0.085	24	J4
MMSZ5250B	20	6.2	25	600	0.25	0.1	15	+0.086	23	J5
MMSZ5251B	22	5.6	29	600	0.25	0.1	17	+0.086	21	K1
MMSZ5252B	24	5.2	33	600	0.25	0.1	18	+0.087	19.1	K2
MMSZ5253B	25	5.0	36	600	0.25	0.1	19	+0.087	18.2	K3
MMSZ5254B	27	4.6	41	600	0.25	0.1	21	+0.087	16.8	K4
MMSZ5255B	28	4.5	44	600	0.25	0.1	21	+0.089	16.2	K5
MMSZ5256B	30	4.2	49	600	0.25	0.1	23	+0.090	15.1	M1
MMSZ5257B	33	3.8	58	700	0.25	0.1	25	+0.091	13.8	M2
MMSZ5258B	36	3.4	70	700	0.25	0.1	27	+0.091	12.6	M3
MMSZ5259B	39	3.2	80	800	0.25	0.1	30	+0.092	11.6	M4

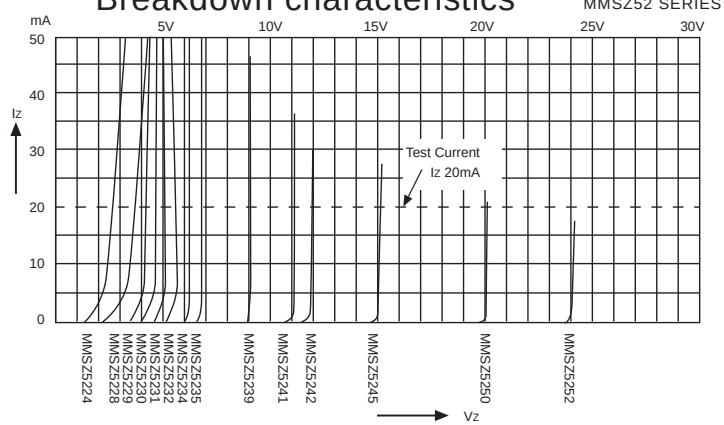
NOTE: Standard Zener Voltage Tolerance ± 5%

changes in the power dissipation due to the ambient temperature.



Breakdown characteristics

MMSZ52 SERIES



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