

SURFACE MOUNT ZENER DIODES

POWER DISSIPATION - 500 mW

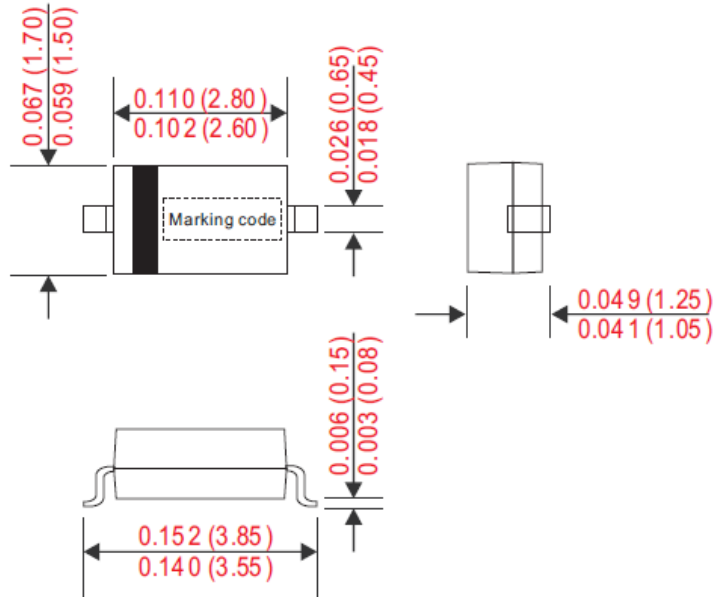
FEATURES

- Low Zener Impedance
- POWER Dissipation of 500mW
- High Stability and High Reliability

MECHANICAL DATA

- Polarity: Color band denotes cathode end
- Case : Molded plastic, SOD-123
- Mounting Position: Any

SOD-123



Dimensions in inches and(millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave ,60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Parameter	Symbol	Value	Unit
Forward voltage @IF=10mA (Note2)	V _F	0.95	V
Power Dissipation (Note 1)	P _D	500	mW
Operating Temperature Range	T _J	-55 to + 150	°C
Storage Temperature Range	T _{STG}	-55 to + 150	°C

Note:1.Device mounted on ceramic PCB:7.6mm*9.4mm*0.87mm with pad areas 25mm²

2.Short duration test pulse used to minimize self-heating effect

3.f=1KHZ

MMSZ52B SERIES



ELECTRICAL CHARACTERISTICS

PART NUMBER	MARKING	Zener voltage			Test current	Zener impedance			Leakage current	
		V _Z @ I _{ZT} (Volts)			I _{ZT}	Z _{ZT} @ I _{ZT}	Z _{ZK} @ I _{ZK}	I _{ZK}	I _R	V _R
		min.	nom.	max.	mA	(Ω)Max	(Ω)Max	mA	uA	Volts
MMSZ5221B	C1	2.28	2.4	2.52	20.0	30	1200	0.25	100	1.0
MMSZ5222B	C2	2.38	2.5	2.63	20.0	30	1250	0.25	100	1.0
MMSZ5223B	C3	2.57	2.7	2.84	20.0	30	1300	0.25	75	1.0
MMSZ5224B	C4	2.66	2.8	2.94	20.0	30	1400	0.25	75	1.0
MMSZ5225B	C5	2.85	3.0	3.15	20.0	29	1600	0.25	50	1.0
MMSZ5226B	D1	3.14	3.3	3.47	20.0	28	1600	0.25	25	1.0
MMSZ5227B	D2	3.42	3.6	3.78	20.0	24	1700	0.25	15	1.0
MMSZ5228B	D3	3.71	3.9	4.10	20.0	23	1900	0.25	10	1.0
MMSZ5229B	D4	4.09	4.3	4.52	20.0	22	2000	0.25	5.0	1.0
MMSZ5230B	D5	4.47	4.7	4.94	20.0	19	1900	0.25	5.0	2.0
MMSZ5231B	E1	4.85	5.1	5.36	20.0	17	1600	0.25	5.0	2.0
MMSZ5232B	E2	5.32	5.6	5.88	20.0	11	1600	0.25	5.0	3.0
MMSZ5233B	E3	5.70	6.0	6.30	20.0	7	1600	0.25	5.0	3.5
MMSZ5234B	E4	5.89	6.2	6.51	20.0	7	1000	0.25	5.0	4.0
MMSZ5235B	E5	6.46	6.8	7.14	20.0	5	750	0.25	3.0	5.0
MMSZ5236B	F1	7.13	7.5	7.88	20.0	6	500	0.25	3.0	6.0
MMSZ5237B	F2	7.79	8.2	8.61	20.0	8	500	0.25	3.0	6.5
MMSZ5238B	F3	8.27	8.7	9.14	20.0	8	600	0.25	3.0	6.5
MMSZ5239B	F4	8.65	9.1	9.56	20.0	10	600	0.25	3.0	7.0
MMSZ5240B	F5	9.50	10	10.50	20.0	17	600	0.25	3.0	8.0
MMSZ5241B	H1	10.45	11	11.55	20.0	22	600	0.25	2.0	8.4
MMSZ5242B	H2	11.40	12	12.60	20.0	30	600	0.25	1.0	9.1
MMSZ5243B	H3	12.35	13	13.65	9.5	13	600	0.25	0.5	9.9
MMSZ5244B	H4	13.30	14	14.70	9.0	15	600	0.25	0.1	10
MMSZ5245B	H5	14.25	15	15.75	8.5	16	600	0.25	0.1	11
MMSZ5246B	J1	15.20	16	16.80	7.8	17	600	0.25	0.1	12
MMSZ5247B	J2	16.15	17	17.85	7.4	19	600	0.25	0.1	13
MMSZ5248B	J3	17.10	18	18.90	7.0	21	600	0.25	0.1	14
MMSZ5250B	J5	19.00	20	21.00	6.2	25	600	0.25	0.1	15
MMSZ5251B	K1	20.90	22	23.10	5.6	29	600	0.25	0.1	17
MMSZ5252B	K2	22.80	24	25.20	5.2	33	600	0.25	0.1	18
MMSZ5253B	K3	23.75	25	26.25	5.0	35	600	0.25	0.1	19
MMSZ5254B	K4	25.65	27	28.35	4.6	41	600	0.25	0.1	21
MMSZ5255B	K5	26.60	28	29.40	4.5	44	600	0.25	0.1	21
MMSZ5256B	M1	28.50	30	31.50	4.2	49	600	0.25	0.1	23
MMSZ5257B	M2	31.35	33	34.65	3.8	58	700	0.25	0.1	25
MMSZ5258B	M3	34.20	36	37.80	3.4	70	700	0.25	0.1	27
MMSZ5259B	M4	37.05	39	40.95	3.2	80	800	0.25	0.1	30

FIG. 1-TOTAL POWER DISSIPATION VS. AMBIENT TEMPERATURE

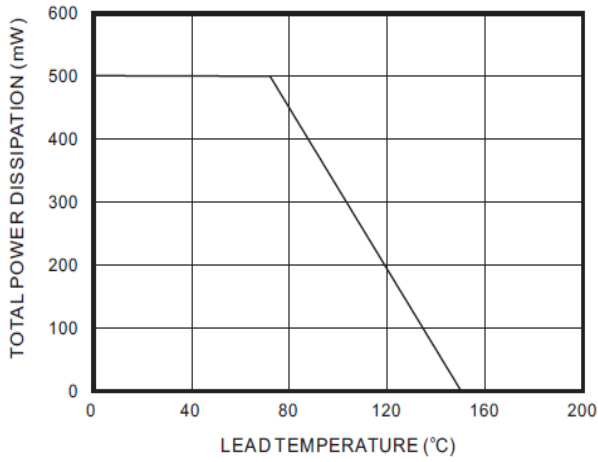


FIG. 2-TYPICAL CHANGE OF WORKING VOLTAGE UNDER OPERATING CONDITIONS AT TA=25°C

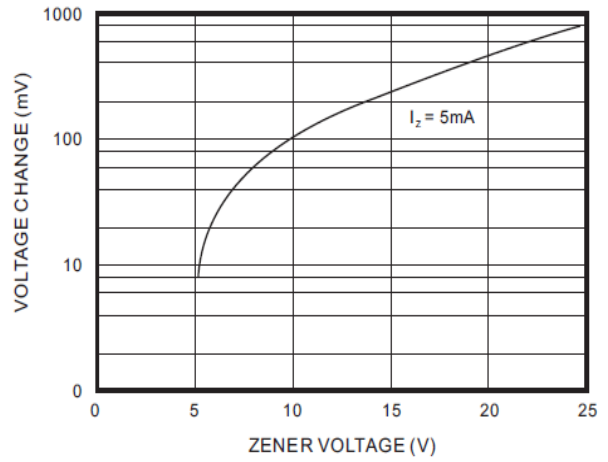


FIG. 3-TYPICAL CHANGE OF WORKING VOLTAGE VS. JUNCTION TEMPERATURE

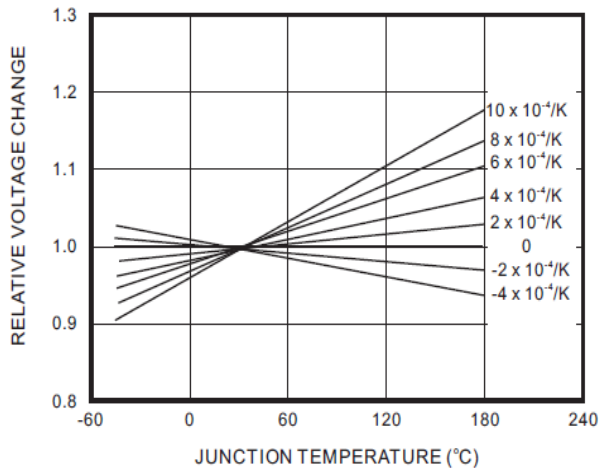


FIG. 4-TEMPERATURE COEFFICIENT OF VZ VS. Z-VOLTAGE

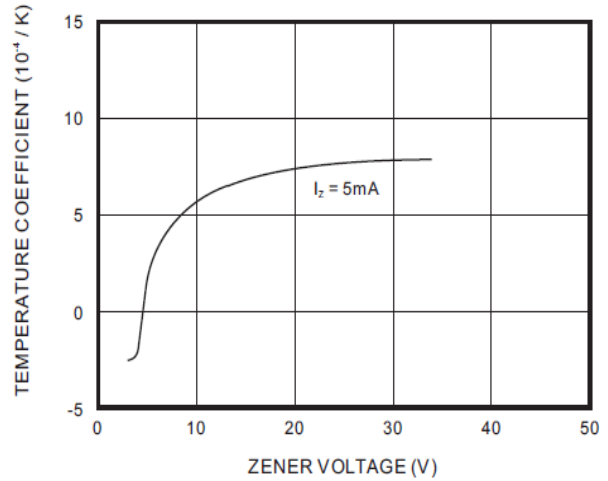
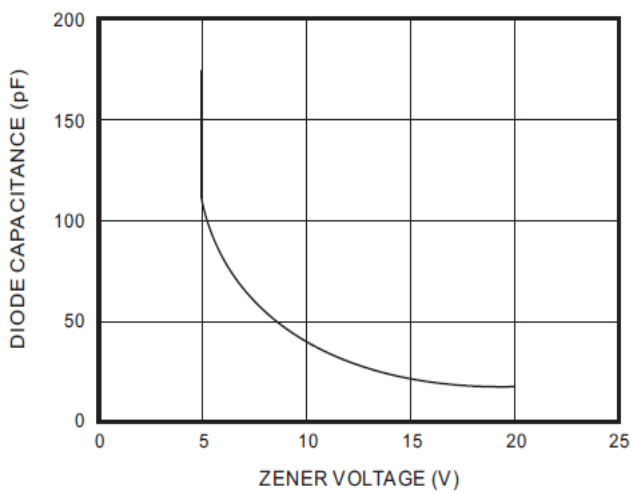


FIG. 5-DIODE CAPACITANCE VS. Z-VOLTAGE



The curve graph is for reference only, can't be the basis for judgment(曲线图仅供参考)!

FIG. 6-FORWARD CURRENT VS. FORWARD VOLTAGE

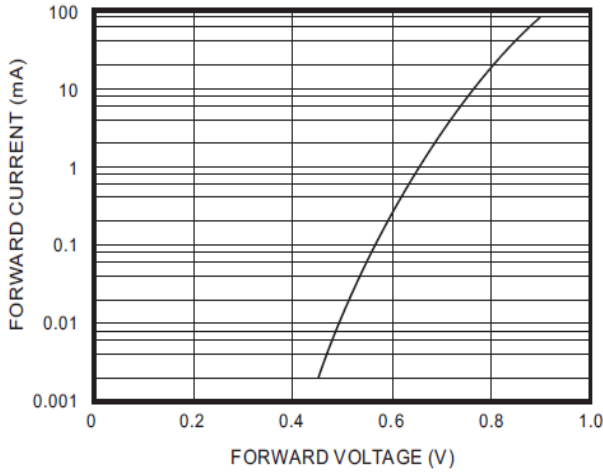


FIG. 7-Z-CURRENT VS. Z-VOLTAGE

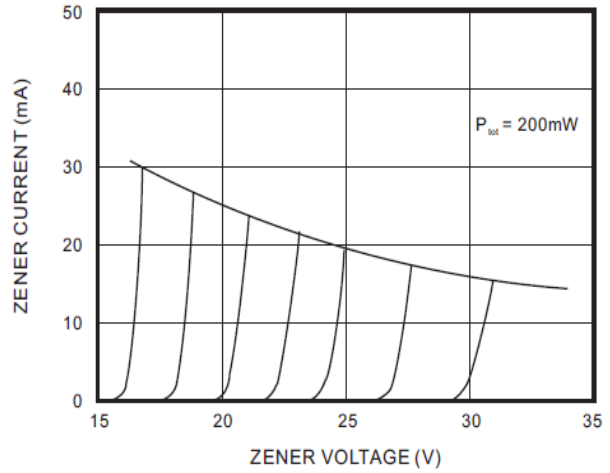


FIG. 8-Z-CURRENT VS. Z-VOLTAGE

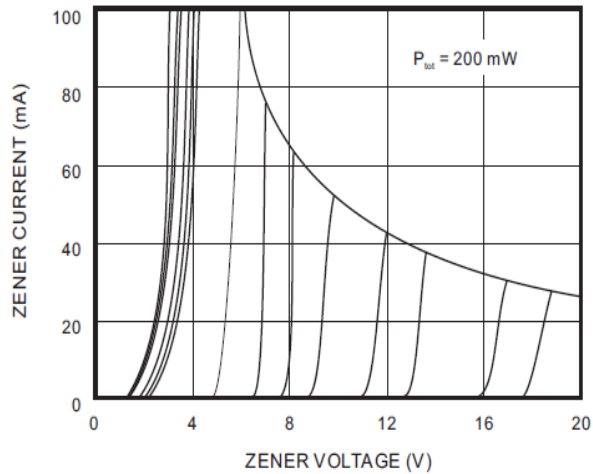


FIG. 9-DIFFERENTIAL Z-RESISTANCE VS. Z-VOLTAGE

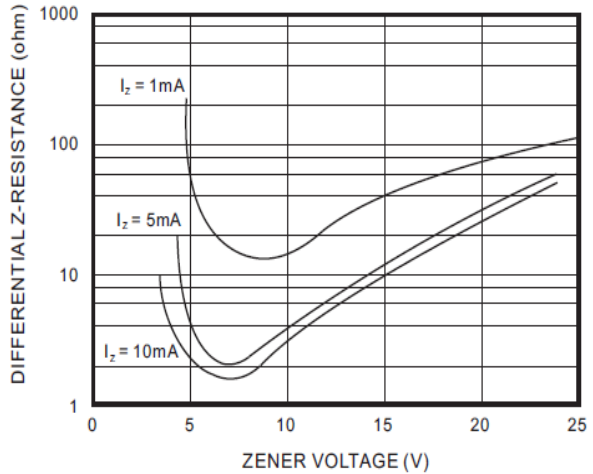
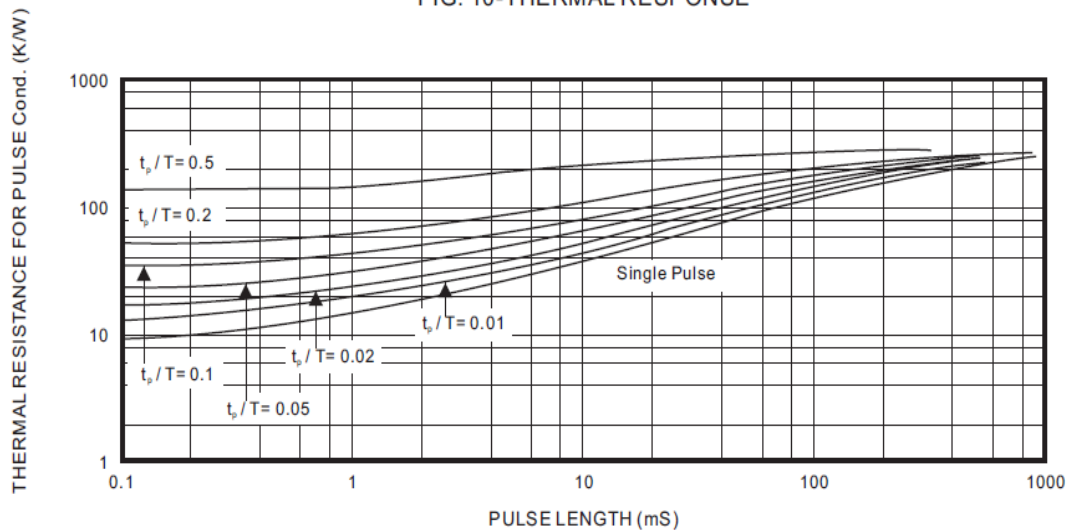


FIG. 10-THERMAL RESPONSE



The curve graph is for reference only, can't be the basis for judgment(曲线图仅供参考)!



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