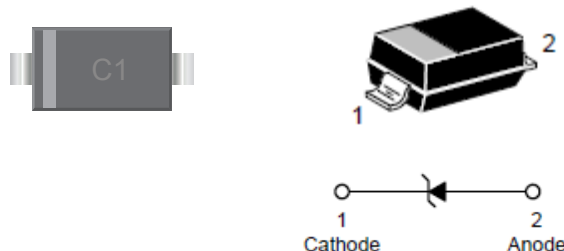


500mW SURFACE MOUNT SILICON ZENER DIODES 2.4V ~ 75V

PRIMARY CHARACTERISTICS	
P_D	500mW
V_Z	2.4V~75V
I_{ZT}	Please refer to the specification
$T_{J,Max}$	150°C

SOD-123 PACKAGE

Marking Code : Please refer to the specification
Ex : MMSZ5221B


FEATURES

- Planar Die Construction
- Ultra-Small Surface Mount Package
- General purpose, Medium Current
- Ideally Suited for Automated Assembly Processes
- Moisture Sensitivity Level 1

MECHANICAL DATA

- Case : Molded plastic,SOD-123
- Polarity : As Above Marked
- Terminals :Plated terminals, solderable per MIL-STD-750,Method 2026
- Epoxy : UL94-V0 rated flame retardant

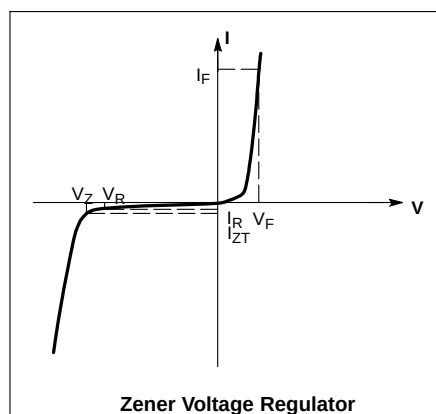
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL	VALUE	UNIT
Power Dissipation at $T_a=25^\circ\text{C}$ (Note 1)	P_{TOT}	500	mW
Operating Junction and Storage Temperature	T_J, T_S	-55 to +150	°C

Note: 1. Mounted on 5.0mm²(.013mm thick)

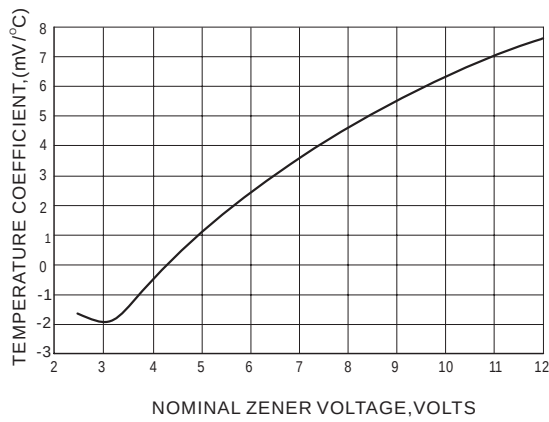
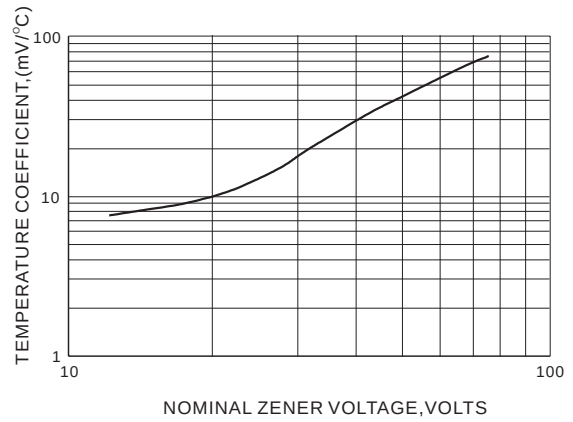
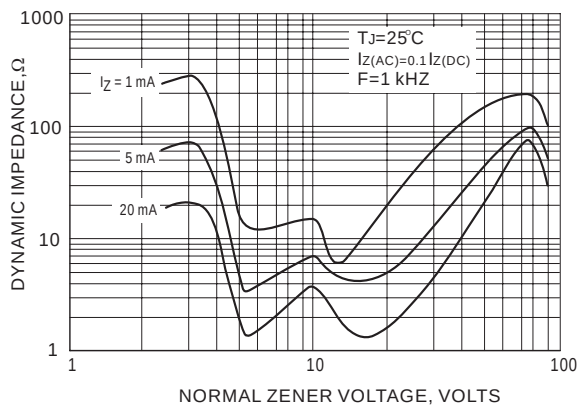
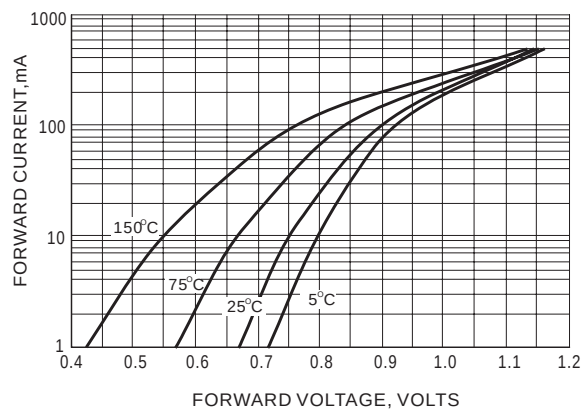
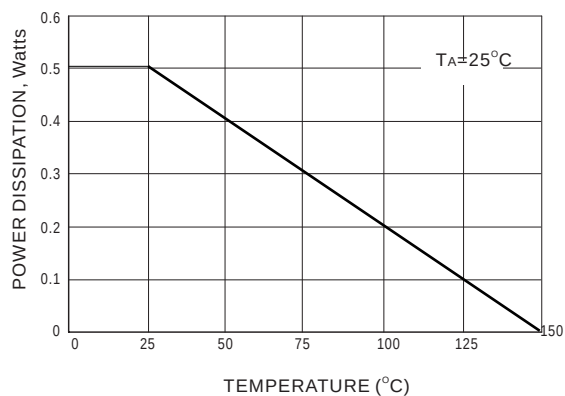
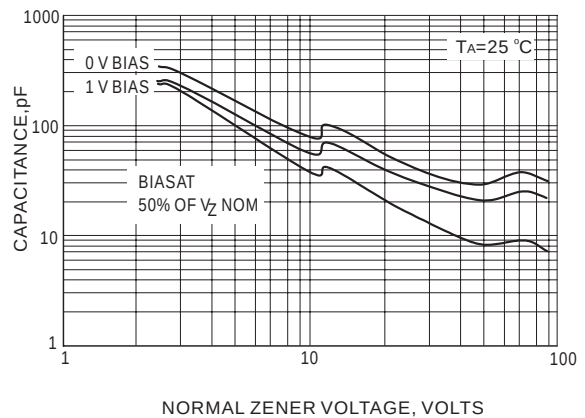
ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless
Otherwise noted, $V_F=0.9\text{V}$ Max. @ $I_F=10\text{mA}$)

Symbol	Parameter
V_Z	Reverse Zener Voltage @ I_{ZT}
I_{ZT}	Reverse Current
Z_{ZT}	Maximum Zener Impedance @ I_{ZT}
I_{ZK}	Reverse Current
Z_{ZK}	Maximum Zener Impedance @ I_{ZK}
I_R	Reverse Leakage Current @ V_R
V_R	Reverse Voltage
I_F	Forward Current
V_F	Forward Voltage @ I_F





Part No.	Nominal Zener Voltage			Max. Zener Impedance				Max Reverse Leakage Current		Marking Code	Case
	$V_Z @ I_{ZT}$			$Z_{ZT} @ I_{ZT}$		$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$			
	Nom. V	Min. V	Max. V	Ω	mA	Ω	mA	μA	V		
MMSZ5221B	2.4	2.28	2.52	30	20.0	1200	0.25	100	1.0	C1	SOD-123
MMSZ5222B	2.5	2.38	2.63	30	20.0	1250	0.25	100	1.0	C2	SOD-123
MMSZ5223B	2.7	2.57	2.84	30	20.0	1300	0.25	75	1.0	C3	SOD-123
MMSZ5225B	3.0	2.85	3.15	30	20.0	1600	0.25	50	1.0	C5	SOD-123
MMSZ5226B	3.3	3.14	3.47	28	20.0	1600	0.25	25	1.0	D1/G1	SOD-123
MMSZ5227B	3.6	3.42	3.78	24	20.0	1700	0.25	15	1.0	D2/G2	SOD-123
MMSZ5228B	3.9	3.71	4.10	23	20.0	1900	0.25	10	1.0	D3/G3	SOD-123
MMSZ5229B	4.3	4.09	4.52	22	20.0	2000	0.25	5.0	1.0	D4/G4	SOD-123
MMSZ5230B	4.7	4.47	4.94	19	20.0	1900	0.25	5.0	2.0	D5/G5	SOD-123
MMSZ5231B	5.1	4.85	5.36	17	20.0	1600	0.25	5.0	2.0	E1	SOD-123
MMSZ5232B	5.6	5.32	5.88	11	20.0	1600	0.25	5.0	3.0	E2	SOD-123
MMSZ5233B	6.0	5.70	6.30	7	20.0	1600	0.25	5.0	3.5	E3	SOD-123
MMSZ5234B	6.2	5.89	6.51	7	20.0	1000	0.25	5.0	4.0	E4	SOD-123
MMSZ5235B	6.8	6.46	7.14	5	20.0	750	0.25	3.0	5.0	E5	SOD-123
MMSZ5236B	7.5	7.13	7.88	6	20.0	500	0.25	3.0	6.0	F1	SOD-123
MMSZ5237B	8.2	7.79	8.61	8	20.0	500	0.25	3.0	6.0	F2	SOD-123
MMSZ5238B	8.7	8.27	9.14	8	20.0	600	0.25	3.0	6.5	F3	SOD-123
MMSZ5239B	9.1	8.65	9.56	10	20.0	600	0.25	3.0	6.5	F4	SOD-123
MMSZ5240B	10.0	9.50	10.50	17	20.0	600	0.25	3.0	8.0	F5	SOD-123
MMSZ5241B	11.0	10.45	11.55	22	20.0	600	0.25	2.0	8.4	H1	SOD-123
MMSZ5242B	12.0	11.40	12.60	30	20.0	600	0.25	1.0	9.1	H2	SOD-123
MMSZ5243B	13.0	12.35	13.65	13	9.5	600	0.25	0.5	9.9	H3	SOD-123
MMSZ5244B	14.0	13.30	14.70	15	9.0	600	0.25	0.1	10.5	H4	SOD-123
MMSZ5245B	15.0	14.25	15.75	16	8.5	600	0.25	0.1	11.0	H5	SOD-123
MMSZ5246B	16.0	15.20	16.80	17	7.8	600	0.25	0.1	12.0	J1	SOD-123
MMSZ5247B	17.0	16.15	17.85	19	7.5	600	0.25	0.1	13.0	J2	SOD-123
MMSZ5248B	18.0	17.10	18.90	21	7.0	600	0.25	0.1	14.0	J3	SOD-123
MMSZ5250B	20.0	19.00	21.00	25	6.2	600	0.25	0.1	15.0	J5	SOD-123
MMSZ5251B	22.0	20.90	23.10	29	5.6	600	0.25	0.1	17.0	K1	SOD-123
MMSZ5252B	24.0	22.80	25.20	33	5.2	600	0.25	0.1	18.0	K2	SOD-123
MMSZ5253B	25.0	23.75	26.25	35	5.0	600	0.25	0.1	19.0	K3	SOD-123
MMSZ5254B	27.0	25.65	28.35	41	5.0	600	0.25	0.1	21.0	K4	SOD-123
MMSZ5255B	28.0	26.60	29.40	44	4.5	600	0.25	0.1	21.0	K5	SOD-123
MMSZ5256B	30.0	28.50	31.50	49	4.2	600	0.25	0.1	23.0	M1	SOD-123
MMSZ5257B	33.0	31.35	34.65	58	3.8	700	0.25	0.1	25.0	M2	SOD-123
MMSZ5258B	36.0	34.20	37.80	70	3.4	700	0.25	0.1	27.0	M3	SOD-123
MMSZ5259B	39.0	37.05	40.95	80	3.2	800	0.25	0.1	30.0	M4	SOD-123
MMSZ5260B	43.0	40.85	45.15	93	3.0	900	0.25	0.1	33.0	M5	SOD-123
MMSZ5261B	47.0	44.65	49.35	105	2.7	1000	0.25	0.1	36.0	N1	SOD-123
MMSZ5262B	51.0	48.45	53.55	125	2.5	1100	0.25	0.1	39.0	N2	SOD-123
MMSZ5263B	56.0	53.20	58.80	150	2.2	1300	0.25	0.1	43.0	N3	SOD-123
MMSZ5264B	60.0	57.00	63.00	170	2.1	1400	0.25	0.1	46.0	N4	SOD-123
MMSZ5265B	62.0	58.90	65.10	185	2.0	1500	0.25	0.1	47.0	N5	SOD-123
MMSZ5266B	68.0	64.60	71.40	230	1.8	1600	0.25	0.1	52.0	N6/P1	SOD-123
MMSZ5267B	75.0	71.25	78.75	270	1.7	1700	0.25	0.1	56.0	N7/P2	SOD-123

**Fig.1 TEMPERATURE COEFFICIENTS****Fig.2 TEMPERATURE COEFFICIENTS****Fig.3 EFFECT OF ZENER VOLTAGE ON ZENER IMPEDANCE****Fig.4 TYPICAL FORWARD VOLTAGE****Fig.5 STEADY STATE POWER DERATING****Fig.6 TYPICAL CAPACITANCE**

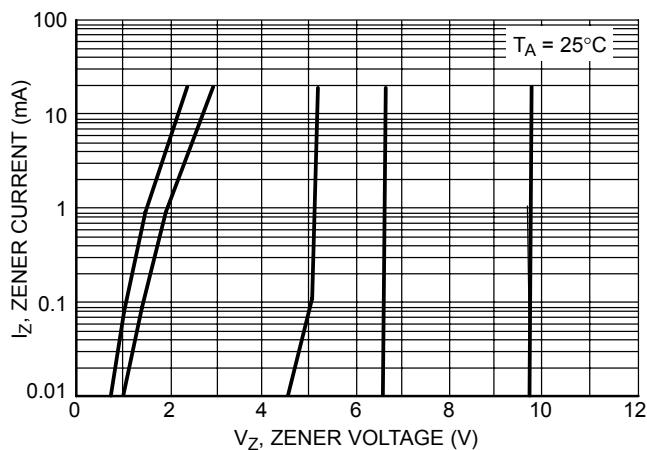


Fig.7 ZENER VOLTAGE VERSUS ZENER CURRENT

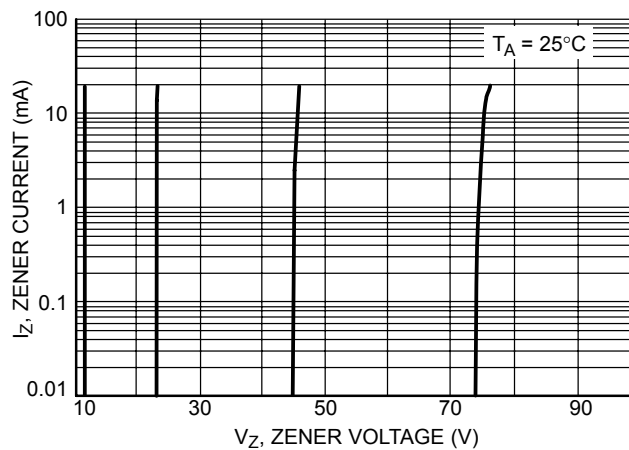


Fig.8 ZENER VOLTAGE VERSUS ZENER CURRENT

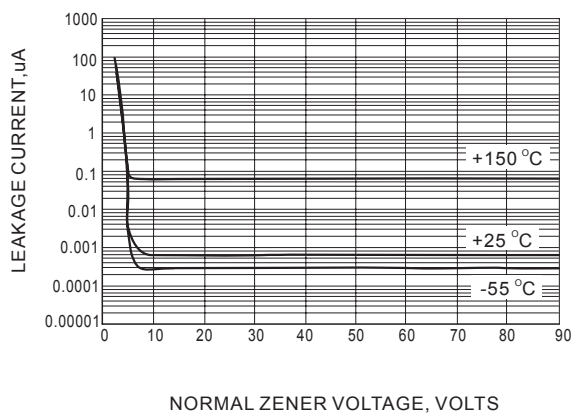
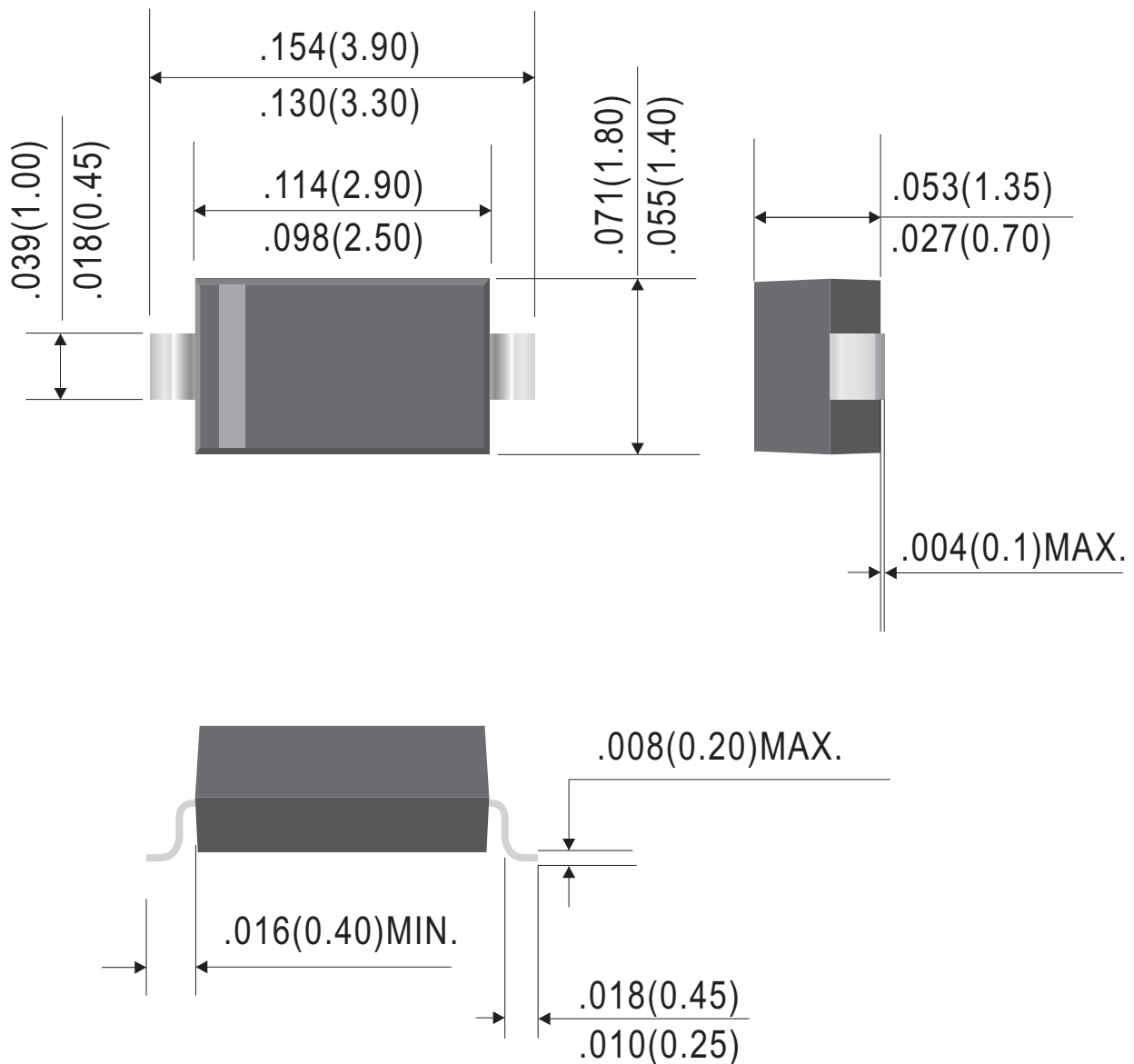


Fig.9 TYPICAL LEAKAGE CURRENT

Outline Drawing

SOD-123



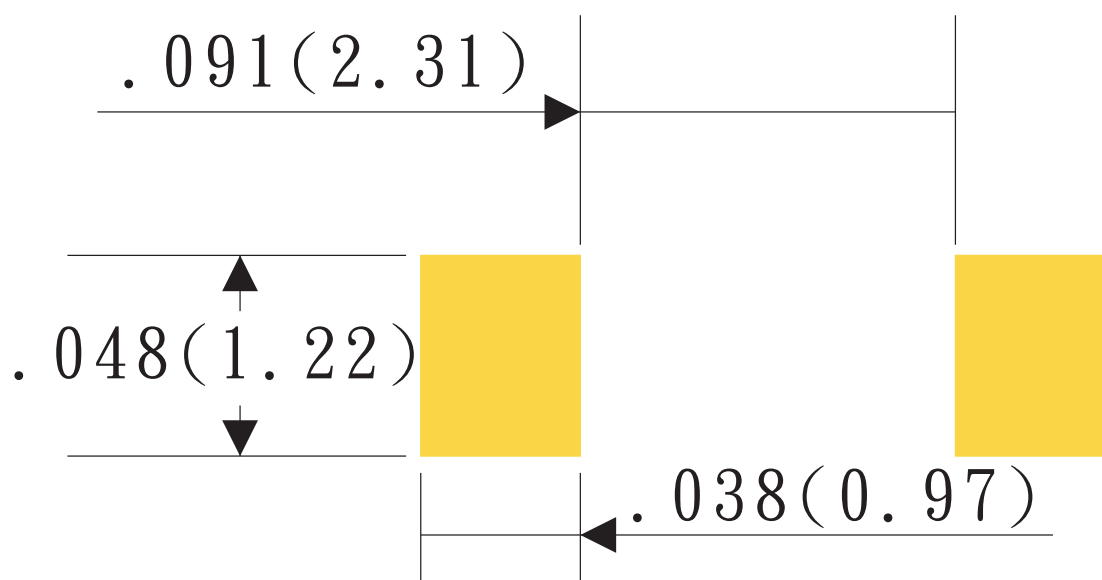
Dimensions in inches and (millimeters)

Rev.D



Suggested Soldering Pad Layout

SOD-123



Dimensions in inches and (millimeters)

RevA

Ordering Information:

Device PN	Packing
Part Number -T ⁽¹⁾ G ⁽²⁾ -WS	Tape&Reel: 3 Kpcs/Reel

Note: (1) Packing code, Tape & Reel Packing

(2) RoHS product for packing code suffix "G" ; Halogen free product for packing code suffix "H"

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