WILLAS

RoHS COMPLIANT

active

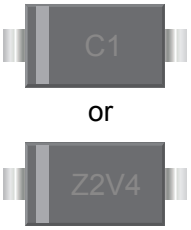
MMSZ5221B THRU MMSZ5267B

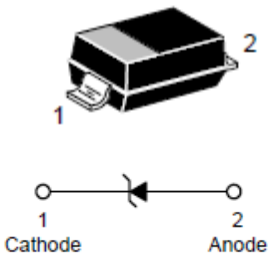
500mW SURFACE MOUNT SILICON ZENER DIODES 2.4V ~ 75V

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

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

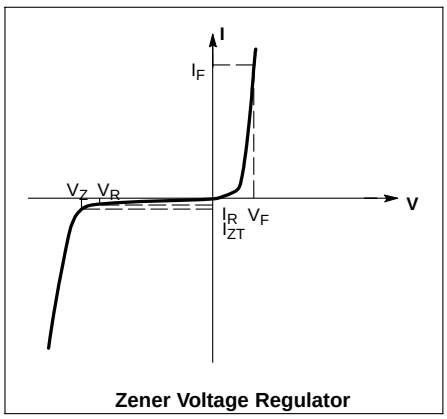
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL	VALUE	UNIT
Power Dissipation at Ta=25℃ (Note 1)	P_{TOT}	500	mW
Operating Junction and Storage Temperature	T_J ,T_S	-55 to +150	℃

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

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless Otherwise noted, V_F=0.9V Max. @ I_F=10mA)

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



Zener Voltage Regulator

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MMSZ5221B THRU MMSZ5267B

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

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/Z2V4	SOD-123
MMSZ5222B	2.5	2.38	2.63	30	20.0	1250	0.25	100	1.0	C2/Z2V5	SOD-123
MMSZ5223B	2.7	2.57	2.84	30	20.0	1300	0.25	75	1.0	C3/Z2V7	SOD-123
MMSZ5225B	3.0	2.85	3.15	30	20.0	1600	0.25	50	1.0	C5/Z3V0	SOD-123
MMSZ5226B	3.3	3.14	3.47	28	20.0	1600	0.25	25	1.0	D1/G1/Z3V3	SOD-123
MMSZ5227B	3.6	3.42	3.78	24	20.0	1700	0.25	15	1.0	D2/G2/Z3V6	SOD-123
MMSZ5228B	3.9	3.71	4.10	23	20.0	1900	0.25	10	1.0	D3/G3/Z3V9	SOD-123
MMSZ5229B	4.3	4.09	4.52	22	20.0	2000	0.25	5.0	1.0	D4/G4/Z4V3	SOD-123
MMSZ5230B	4.7	4.47	4.94	19	20.0	1900	0.25	5.0	2.0	D5/G5/Z4V7	SOD-123
MMSZ5231B	5.1	4.85	5.36	17	20.0	1600	0.25	5.0	2.0	E1/Z5V1	SOD-123
MMSZ5232B	5.6	5.32	5.88	11	20.0	1600	0.25	5.0	3.0	E2/Z5V6	SOD-123
MMSZ5233B	6.0	5.70	6.30	7	20.0	1600	0.25	5.0	3.5	E3/Z6V0	SOD-123
MMSZ5234B	6.2	5.89	6.51	7	20.0	1000	0.25	5.0	4.0	E4/Z6V2	SOD-123
MMSZ5235B	6.8	6.46	7.14	5	20.0	750	0.25	3.0	5.0	E5/Z6V8	SOD-123
MMSZ5236B	7.5	7.13	7.88	6	20.0	500	0.25	3.0	6.0	F1/Z7V5	SOD-123
MMSZ5237B	8.2	7.79	8.61	8	20.0	500	0.25	3.0	6.0	F2/Z8V2	SOD-123
MMSZ5238B	8.7	8.27	9.14	8	20.0	600	0.25	3.0	6.5	F3/Z8V7	SOD-123
MMSZ5239B	9.1	8.65	9.56	10	20.0	600	0.25	3.0	6.5	F4/Z9V1	SOD-123
MMSZ5240B	10.0	9.50	10.50	17	20.0	600	0.25	3.0	8.0	F5/Z10	SOD-123
MMSZ5241B	11.0	10.45	11.55	22	20.0	600	0.25	2.0	8.4	H1/Z11	SOD-123
MMSZ5242B	12.0	11.40	12.60	30	20.0	600	0.25	1.0	9.1	H2/Z12	SOD-123
MMSZ5243B	13.0	12.35	13.65	13	9.5	600	0.25	0.5	9.9	H3/Z13	SOD-123
MMSZ5244B	14.0	13.30	14.70	15	9.0	600	0.25	0.1	10.5	H4/Z14	SOD-123
MMSZ5245B	15.0	14.25	15.75	16	8.5	600	0.25	0.1	11.0	H5/Z15	SOD-123
MMSZ5246B	16.0	15.20	16.80	17	7.8	600	0.25	0.1	12.0	J1/Z16	SOD-123
MMSZ5247B	17.0	16.15	17.85	19	7.5	600	0.25	0.1	13.0	J2/Z17	SOD-123
MMSZ5248B	18.0	17.10	18.90	21	7.0	600	0.25	0.1	14.0	J3/Z18	SOD-123
MMSZ5250B	20.0	19.00	21.00	25	6.2	600	0.25	0.1	15.0	J5/Z20	SOD-123
MMSZ5251B	22.0	20.90	23.10	29	5.6	600	0.25	0.1	17.0	K1/Z22	SOD-123
MMSZ5252B	24.0	22.80	25.20	33	5.2	600	0.25	0.1	18.0	K2/Z24	SOD-123
MMSZ5253B	25.0	23.75	26.25	35	5.0	600	0.25	0.1	19.0	K3/Z25	SOD-123
MMSZ5254B	27.0	25.65	28.35	41	5.0	600	0.25	0.1	21.0	K4/Z27	SOD-123
MMSZ5255B	28.0	26.60	29.40	44	4.5	600	0.25	0.1	21.0	K5Z28	SOD-123
MMSZ5256B	30.0	28.50	31.50	49	4.2	600	0.25	0.1	23.0	M1/Z30	SOD-123
MMSZ5257B	33.0	31.35	34.65	58	3.8	700	0.25	0.1	25.0	M2/Z33	SOD-123
MMSZ5258B	36.0	34.20	37.80	70	3.4	700	0.25	0.1	27.0	M3/Z36	SOD-123
MMSZ5259B	39.0	37.05	40.95	80	3.2	800	0.25	0.1	30.0	M4/Z39	SOD-123
MMSZ5260B	43.0	40.85	45.15	93	3.0	900	0.25	0.1	33.0	M5/Z43	SOD-123
MMSZ5261B	47.0	44.65	49.35	105	2.7	1000	0.25	0.1	36.0	N1/Z47	SOD-123
MMSZ5262B	51.0	48.45	53.55	125	2.5	1100	0.25	0.1	39.0	N2/Z51	SOD-123
MMSZ5263B	56.0	53.20	58.80	150	2.2	1300	0.25	0.1	43.0	N3/Z56	SOD-123
MMSZ5264B	60.0	57.00	63.00	170	2.1	1400	0.25	0.1	46.0	N4/Z60	SOD-123
MMSZ5265B	62.0	58.90	65.10	185	2.0	1500	0.25	0.1	47.0	N5/Z62	SOD-123
MMSZ5266B	68.0	64.60	71.40	230	1.8	1600	0.25	0.1	52.0	N6/P1/Z68	SOD-123
MMSZ5267B	75.0	71.25	78.75	270	1.7	1700	0.25	0.1	56.0	N7/P2/Z75	SOD-123

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

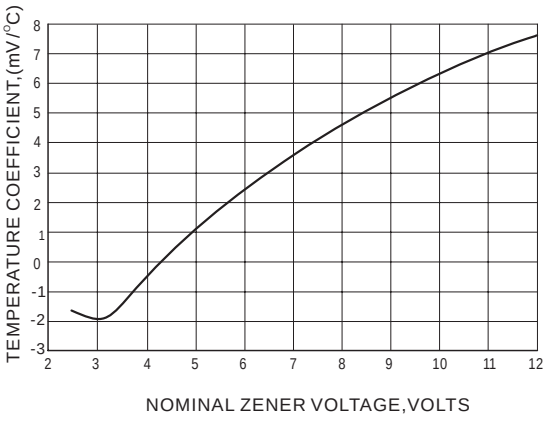


Fig.1 TEMPERATURE COEFFICENTS

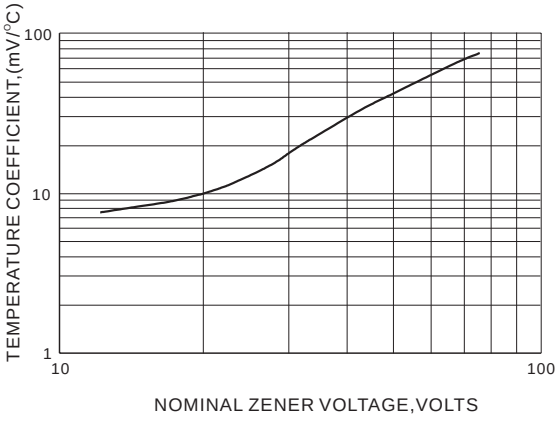


Fig.2 TEMPERATURE COEFFICENTS

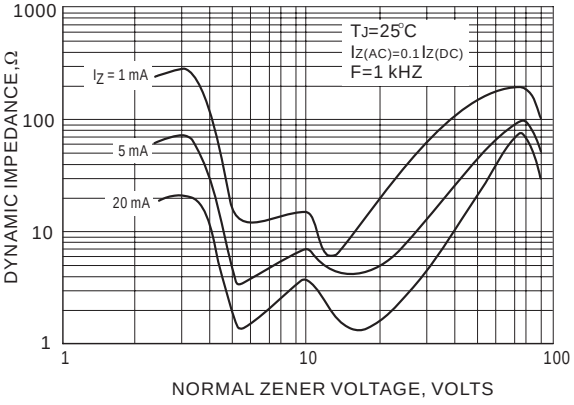


Fig.3 EFFECT OF ZENER VOLTAGE ON ZENER IMPEDANCE

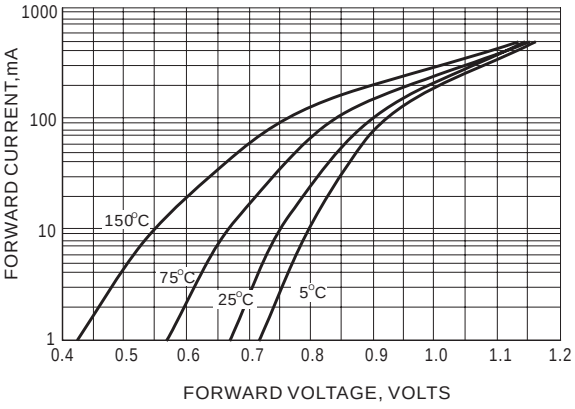


Fig.4 TYPICAL FORWARD VOLTAGE

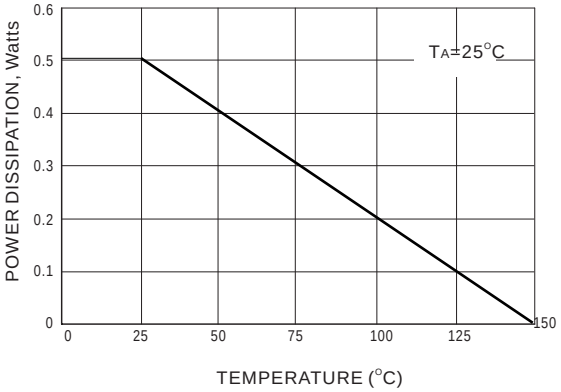


Fig.5 STEADY STATE POWER DERATING

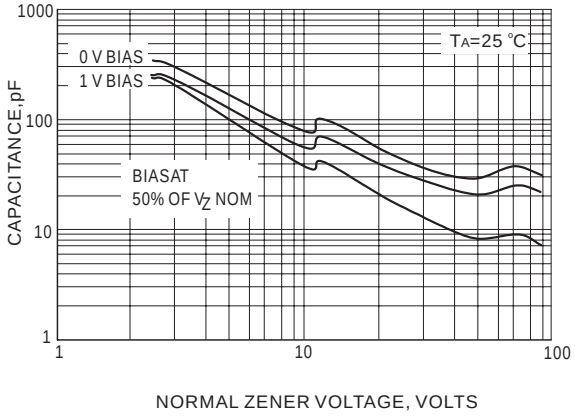


Fig.6 TYPICAL CAPACITANCE

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

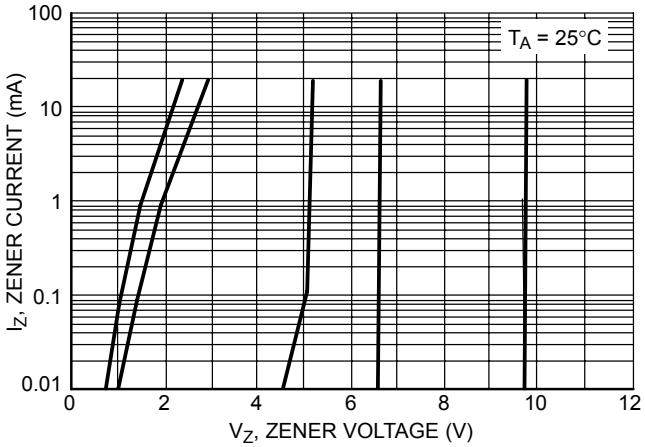


Fig.7 ZENER VOLTAGE VERSUS ZENER CURRENT

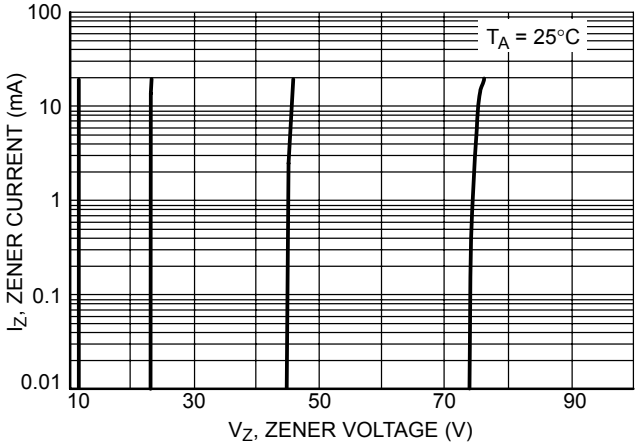


Fig.8 ZENER VOLTAGE VERSUS ZENER CURRENT

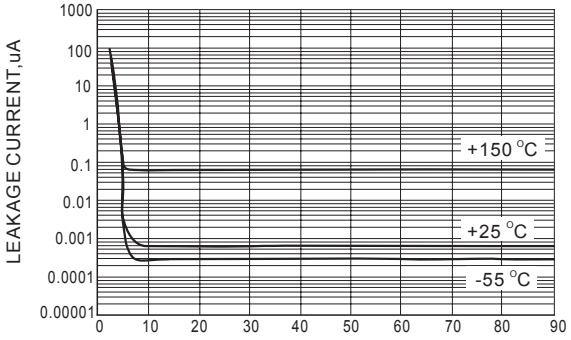
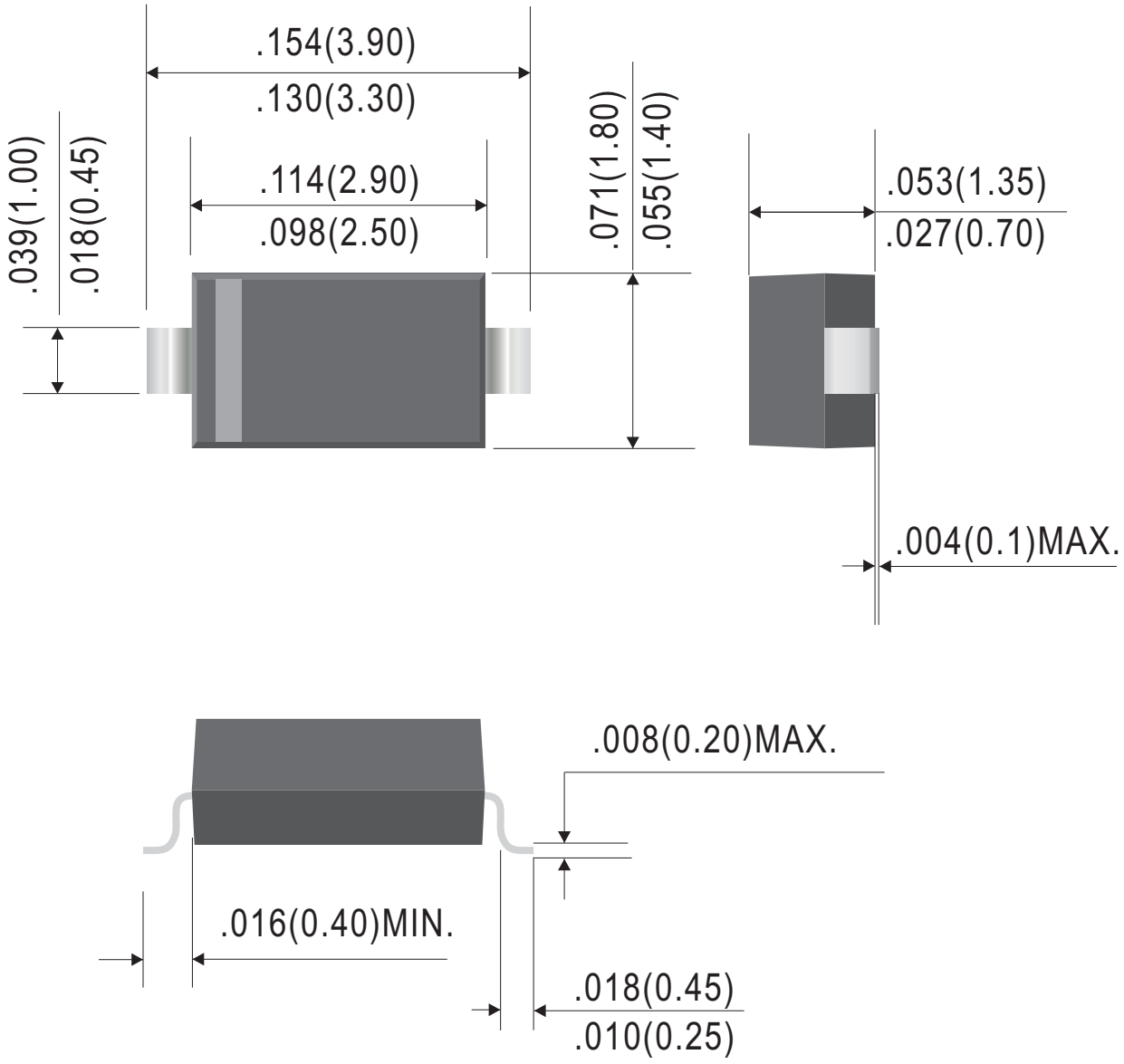


Fig.9 TYPICAL LEAKAGE CURRENT

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

Outline Drawing

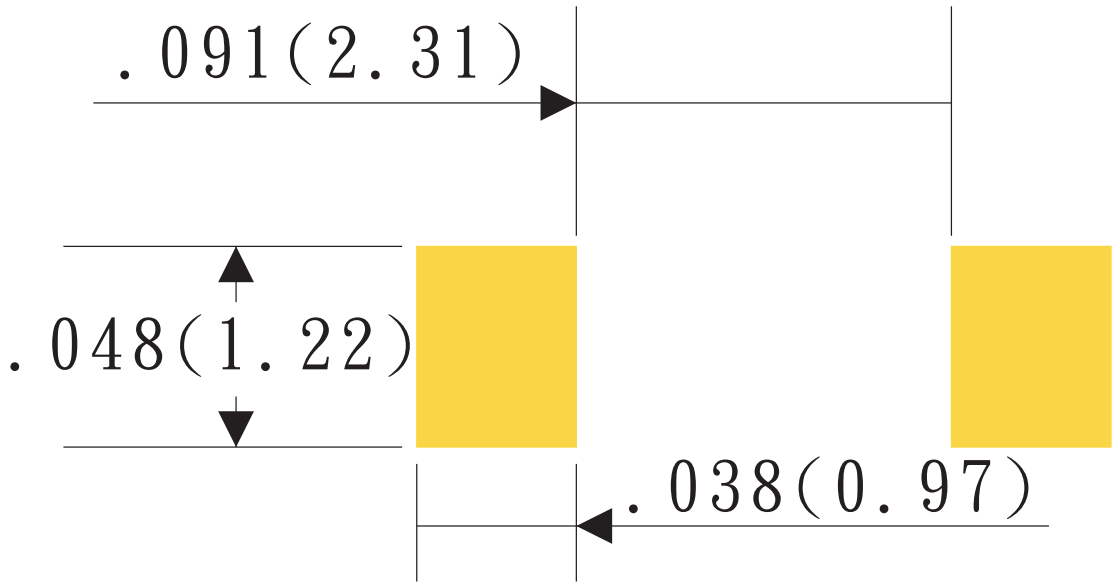
SOD-123



Dimensions in inches and (millimeters)

Rev.D

Suggested Soldering Pad Layout	SOD-123



Dimensions in inches and (millimeters)

RevA

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

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"