

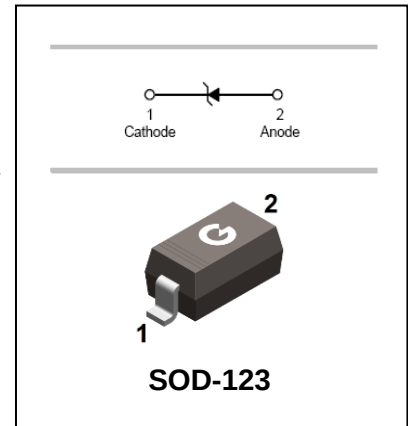
SMT-Type Zener Diode

MMSZ46XX - MMSZ47XX

FEATURES

- Large selection of zener voltages: 1.8V ~ 43V
- Tight voltage tolerance: $\pm 5\%$
- Ultra low-profile package well suited for automated assembly
- MSL Class 1 compatible
- RoHS compliant with Halogen-free

HF



APPLICATIONS

- General voltage regulation
- Mobile & handheld systems

ORDERING INFORMATION

Part Number	Marking	Package
MMSZ46XX – MMSZ47XX	See Electrical Characteristics	SOD-123

MAXIMUM RATING (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Forward Voltage @ $I_F = 10\text{mA}$	V_F	0.9	V
Power Dissipation	P_D	500	mW
Thermal Resistance Junction-to-Air ^{*1}	$R_{\theta JA}$	250	$^\circ\text{C/W}$
Thermal Resistance Junction-to-Case ^{*1}	$R_{\theta JC}$	150	$^\circ\text{C/W}$
Thermal Resistance Junction-to-Lead ^{*1}	$R_{\theta JL}$	180	$^\circ\text{C/W}$
Junction Temperature Range	T_J	-55 ~ +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65 ~ +150	$^\circ\text{C}$

Note 1: The data tested by surface mounted on a 1 inch² FR-4 board with 2OZ copper

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ELECTRICAL CHARACTERISTICS (@ T_A = 25°C unless otherwise specified)

Part Number	Marking Code	Zener Voltage V _Z (V)			@ I _{ZT} (μA)	Maximum Reverse Current I _R (μA)	@ V _R (V)
		Min.	Typ.	Max.			
MMSZ4678	CC	1.71	1.80	1.89	50	7.500	1.0
MMSZ4679	CD	1.90	2.00	2.10	50	5.000	1.0
MMSZ4680	CE	2.09	2.20	2.31	50	4.000	1.0
MMSZ4681	CF	2.28	2.40	2.52	50	2.000	1.0
MMSZ4682	CH	2.57	2.70	2.84	50	1.000	1.0
MMSZ4683	CJ	2.85	3.00	3.15	50	0.800	1.0
MMSZ4684	CK	3.14	3.30	3.47	50	7.500	1.5
MMSZ4685	CM	3.42	3.60	3.78	50	7.500	2.0
MMSZ4686	CN	3.71	3.90	4.10	50	5.000	2.0
MMSZ4687	CP	4.09	4.30	4.52	50	4.000	2.0
MMSZ4688	CT	4.47	4.70	4.94	50	10.000	3.0
MMSZ4689	CU	4.85	5.10	5.36	50	10.000	3.0
MMSZ4690	CV	5.32	5.60	5.88	50	10.000	4.0
MMSZ4691	CA	5.89	6.20	6.51	50	10.000	5.0
MMSZ4692	CX	6.46	6.80	7.14	50	10.000	5.1
MMSZ4693	CY	7.13	7.50	7.88	50	10.000	5.7
MMSZ4694	CZ	7.79	8.20	8.61	50	1.000	6.2
MMSZ4695	DC	8.27	8.70	9.14	50	1.000	6.6
MMSZ4696	DD	8.65	9.10	9.56	50	1.000	6.9
MMSZ4697	DE	9.50	10.00	10.50	50	1.000	7.6
MMSZ4698	DF	10.45	11.00	11.55	50	0.050	8.4
MMSZ4699	DH	11.40	12.00	12.60	50	0.050	9.1
MMSZ4700	DJ	12.35	13.00	13.65	50	0.050	9.8
MMSZ4701	DK	13.30	14.00	14.70	50	0.050	10.6
MMSZ4702	DM	14.25	15.00	15.75	50	0.050	11.4
MMSZ4703	DN	15.20	16.00	16.80	50	0.050	12.1
MMSZ4704	DP	16.15	17.00	17.85	50	0.050	12.9
MMSZ4705	DT	17.10	18.00	18.90	50	0.050	13.6
MMSZ4706	DU	18.05	19.00	19.95	50	0.050	14.4
MMSZ4707	DV	19.00	20.00	21.00	50	0.010	15.2
MMSZ4708	DA	20.90	22.00	23.10	50	0.010	16.7
MMSZ4709	DX	22.80	24.00	25.20	50	0.010	18.2
MMSZ4710	DY	23.75	25.00	26.25	50	0.010	19.0
MMSZ4711	EA	25.65	27.00	28.35	50	0.010	20.4
MMSZ4712	EC	26.60	28.00	29.40	50	0.010	21.2
MMSZ4713	ED	28.50	30.00	31.50	50	0.010	22.8
MMSZ4714	EE	31.35	33.00	34.65	50	0.010	25.0
MMSZ4715	EF	34.20	36.00	37.80	50	0.010	27.3
MMSZ4716	EH	37.05	39.00	40.95	50	0.010	29.6
MMSZ4717	EJ	40.85	43.00	45.15	50	0.010	32.6

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TYPICAL CHARACTERISTICS (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

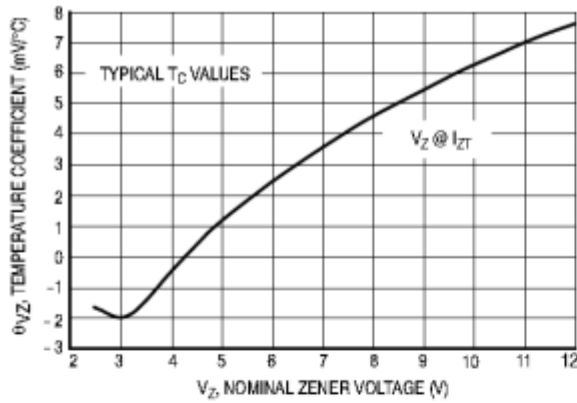


Figure 1 Temperature Coefficients
(Temperature Range -55°C to $+150^\circ\text{C}$)

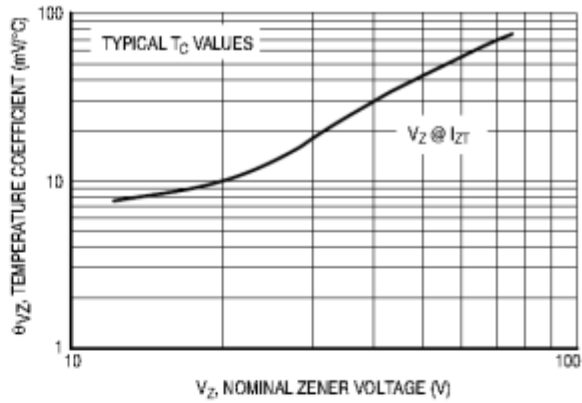


Figure 2 Temperature Coefficients
(Temperature Range -55°C to $+150^\circ\text{C}$)

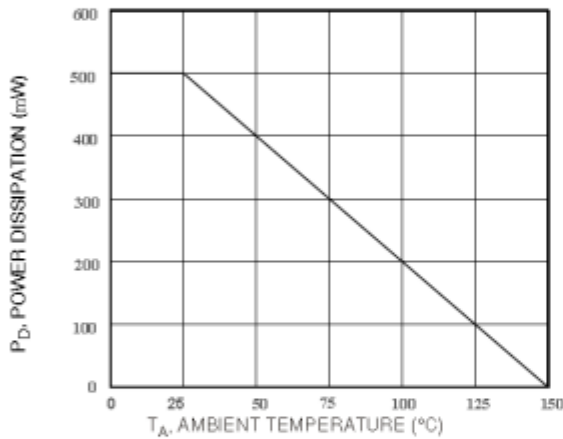


Figure 3 Steady State Power Derating

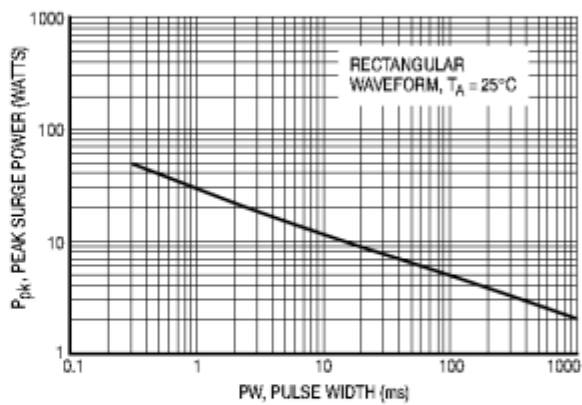


Figure 4 Maximum Nonrepetitive Surge Power

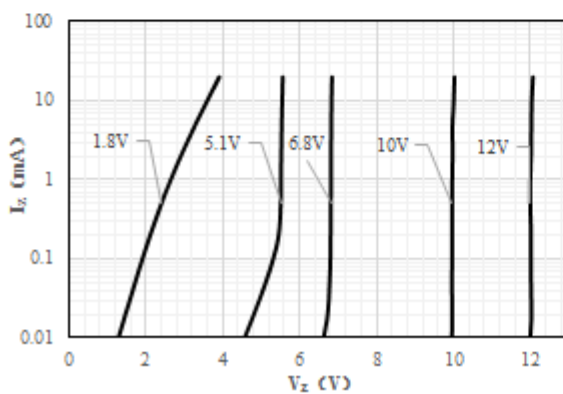


Figure 5 Zener Voltage versus Zener Current
(V_Z Up to 12 V)

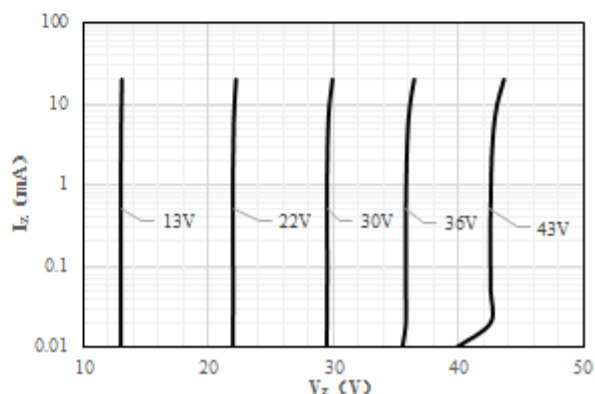


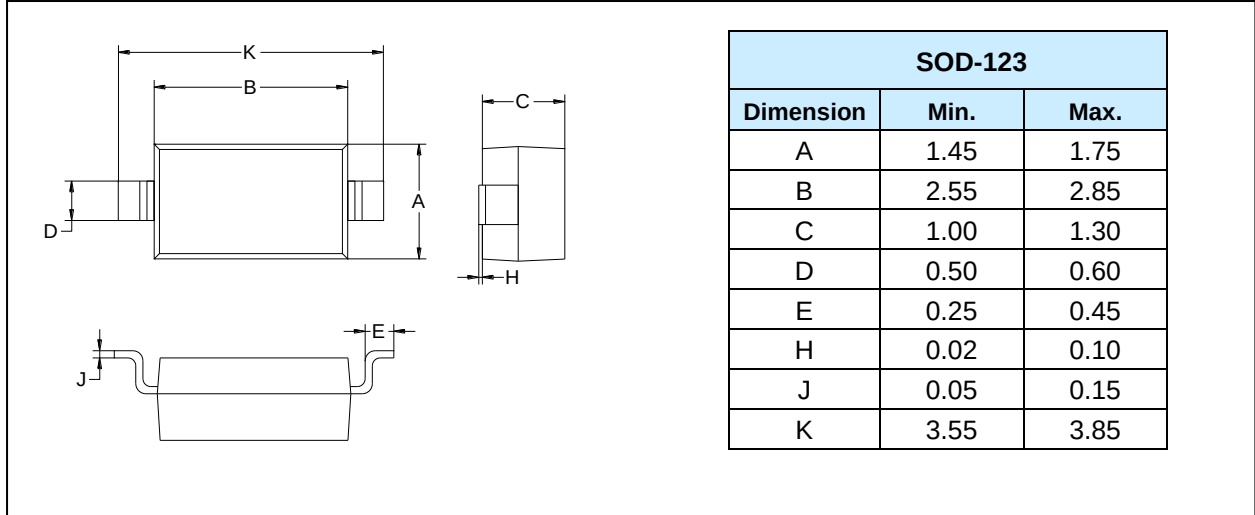
Figure 6 Zener Voltage versus Zener Current
(12 V to 91 V)

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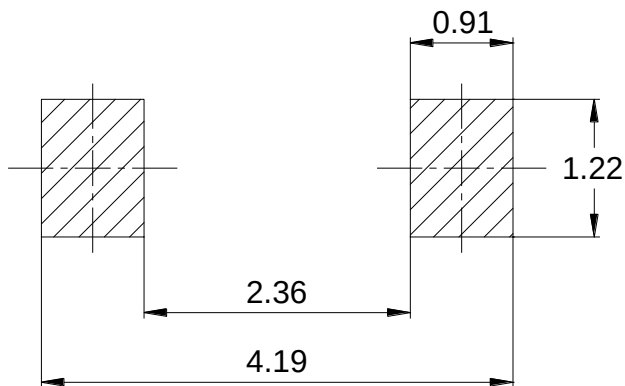
MMSZ46XX - MMSZ47XX

PACKAGE OUTLINE (Unit: mm)

Plastic surface mounted package



MOUNTING PAD LAYOUT (Unit: mm)



PACKAGE INFORMATION

Part Number	Package	Shipping Quantity
MMSZ46XX – MMSZ47XX	SOD-123	3000 pcs / Tape & Reel