

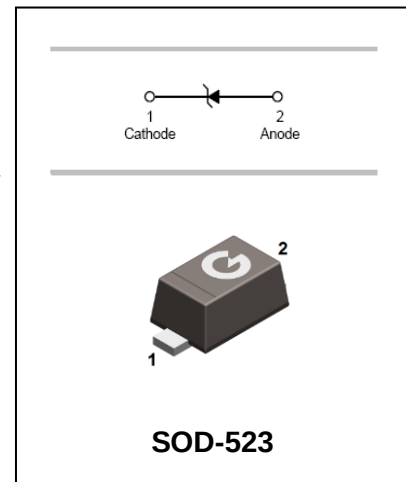
SMT-Type Zener Diode

MMSZ46XXT - MMSZ47XXT

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
MMSZ46XXT – MMSZ47XXT	See Electrical Characteristics	SOD-523

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	150	mW
Thermal Resistance Junction-to-Air ^{*1}	$R_{\theta JA}$	379	$^\circ\text{C/W}$
Thermal Resistance Junction-to-Case ^{*1}	$R_{\theta JC}$	224	$^\circ\text{C/W}$
Thermal Resistance Junction-to-Lead ^{*1}	$R_{\theta JL}$	263	$^\circ\text{C/W}$
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 15mm * 15mm * 1mm FR4-epoxy P.C.B

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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.			
MMSZ4678T	CC	1.71	1.80	1.89	50	7.500	1.0
MMSZ4679T	CD	1.90	2.00	2.10	50	5.000	1.0
MMSZ4680T	CE	2.09	2.20	2.31	50	4.000	1.0
MMSZ4681T	CF	2.28	2.40	2.52	50	2.000	1.0
MMSZ4682T	CH	2.57	2.70	2.84	50	1.000	1.0
MMSZ4683T	CJ	2.85	3.00	3.15	50	0.800	1.0
MMSZ4684T	CK*	3.14	3.30	3.47	50	7.500	1.5
MMSZ4685T	CM	3.42	3.60	3.78	50	7.500	2.0
MMSZ4686T	CN	3.71	3.90	4.10	50	5.000	2.0
MMSZ4687T	CP	4.09	4.30	4.52	50	4.000	2.0
MMSZ4688T	CT	4.47	4.70	4.94	50	10.000	3.0
MMSZ4689T	CU	4.85	5.10	5.36	50	10.000	3.0
MMSZ4690T	CV	5.32	5.60	5.88	50	10.000	4.0
MMSZ4691T	CA	5.89	6.20	6.51	50	10.000	5.0
MMSZ4692T	CX	6.46	6.80	7.14	50	10.000	5.1
MMSZ4693T	CY	7.13	7.50	7.88	50	10.000	5.7
MMSZ4694T	CZ	7.79	8.20	8.61	50	1.000	6.2
MMSZ4695T	DC	8.27	8.70	9.14	50	1.000	6.6
MMSZ4696T	DD	8.65	9.10	9.56	50	1.000	6.9
MMSZ4697T	DE	9.50	10.00	10.50	50	1.000	7.6
MMSZ4698T	DF	10.45	11.00	11.55	50	0.050	8.4
MMSZ4699T	DH	11.40	12.00	12.60	50	0.050	9.1
MMSZ4700T	DJ	12.35	13.00	13.65	50	0.050	9.8
MMSZ4701T	DK	13.30	14.00	14.70	50	0.050	10.6
MMSZ4702T	DM	14.25	15.00	15.75	50	0.050	11.4
MMSZ4703T	DN	15.20	16.00	16.80	50	0.050	12.1
MMSZ4704T	DP	16.15	17.00	17.85	50	0.050	12.9
MMSZ4705T	DT	17.10	18.00	18.90	50	0.050	13.6
MMSZ4706T	DU	18.05	19.00	19.95	50	0.050	14.4
MMSZ4707T	DV	19.00	20.00	21.00	50	0.010	15.2
MMSZ4708T	DA	20.90	22.00	23.10	50	0.010	16.7
MMSZ4709T	DX	22.80	24.00	25.20	50	0.010	18.2
MMSZ4710T	DY	23.75	25.00	26.25	50	0.010	19.0
MMSZ4711T	EA	25.65	27.00	28.35	50	0.010	20.4
MMSZ4712T	EC	26.60	28.00	29.40	50	0.010	21.2
MMSZ4713T	ED	28.50	30.00	31.50	50	0.010	22.8
MMSZ4714T	EE	31.35	33.00	34.65	50	0.010	25.0
MMSZ4715T	EF	34.20	36.00	37.80	50	0.010	27.3
MMSZ4716T	EH	37.05	39.00	40.95	50	0.010	29.6
MMSZ4717T	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)

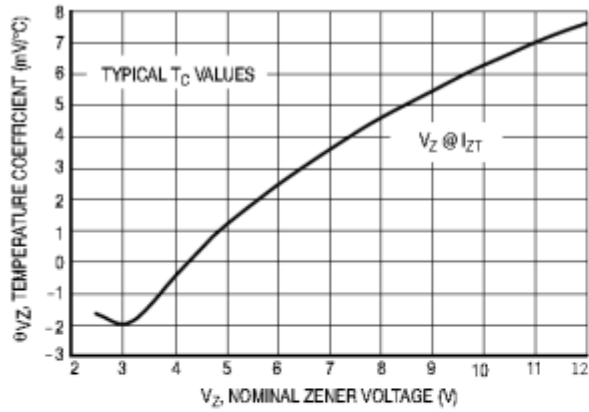


Figure 1 Temperature Coefficients
(Temperature Range -55°C to $+150^\circ\text{C}$)

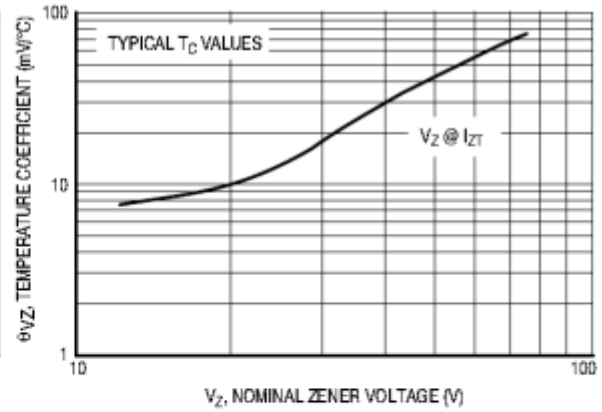


Figure 2 Temperature Coefficients
(Temperature Range -55°C to $+150^\circ\text{C}$)

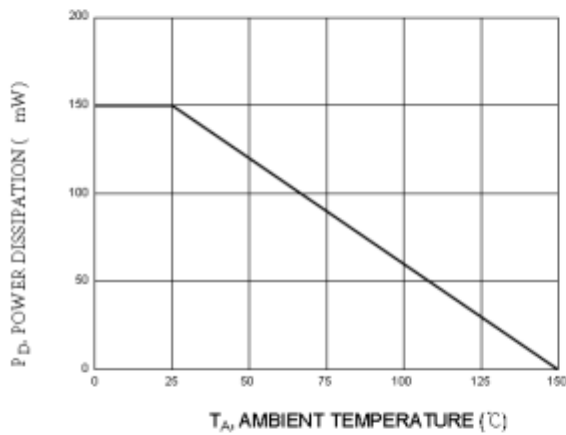


Figure 3 Steady State Power Derating

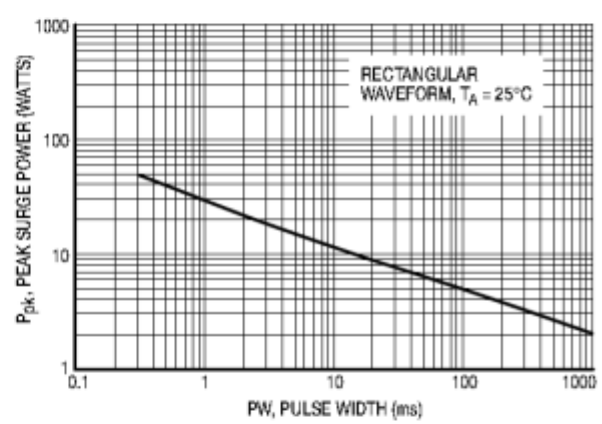


Figure 4 Maximum Nonrepetitive Surge Power

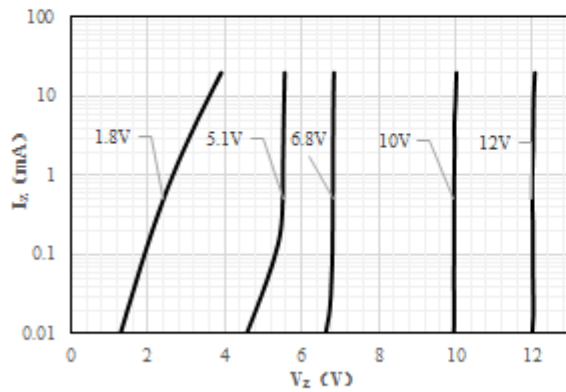


Figure 5 Zener Voltage versus Zener Current
(V_Z Up to 12 V)

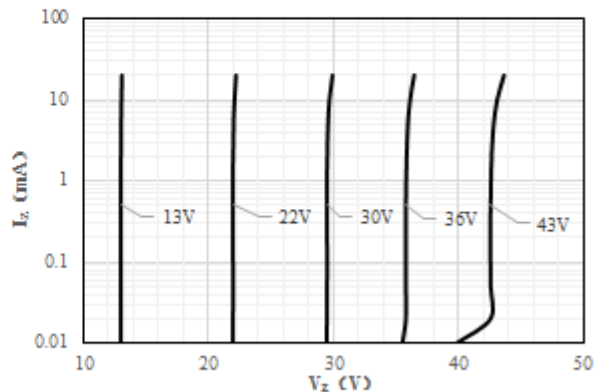


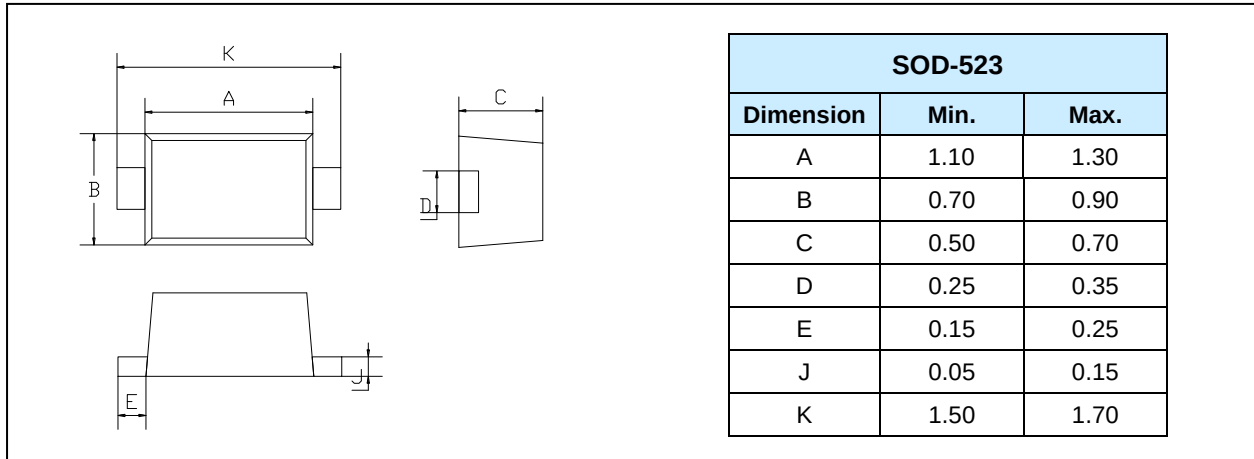
Figure 6 Zener Voltage versus Zener Current
(12 V to 91 V)

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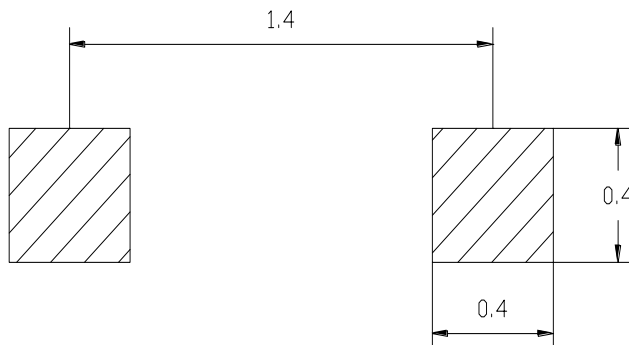
MMSZ46XXT - MMSZ47XXT

PACKAGE OUTLINE (Unit: mm)

Plastic surface mounted package



MOUNTING PAD LAYOUT (Unit: mm)



PACKAGE INFORMATION

Part Number	Package	Shipping Quantity
MMSZ46XXT – MMSZ47XXT	SOD-523	3000 pcs / Tape & Reel