

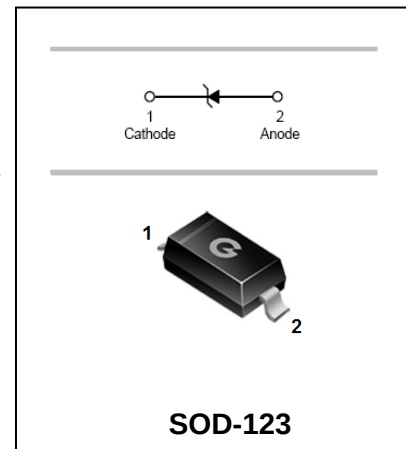
SMT-Type Zener Diode

TMMSZ46XX - TMMSZ47XX

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
- Halogen free
- Qualified to AEC-Q101 standards for high reliability

HF



APPLICATIONS

- General voltage regulation
- Mobile & handheld systems

ORDERING INFORMATION

Part Number	Marking	Package
TMMSZ46XX – TMMSZ47XX	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-Ambient)	$R_{\theta JA}$	250	$^\circ\text{C/W}$
Thermal Resistance (Junction-to-Case)	$R_{\theta JC}$	140	$^\circ\text{C/W}$
Junction Temperature Range	T_J	-55 ~ +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65 ~ +150	$^\circ\text{C}$

Note: These ratings are limiting values above which the serviceability of the diodes may be impaired.

SMT-Type Zener Diode

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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.			
TMMSZ4678	CC	1.71	1.80	1.89	50	7.500	1.0
TMMSZ4679	CD	1.90	2.00	2.10	50	5.000	1.0
TMMSZ4680	CE	2.09	2.20	2.31	50	4.000	1.0
TMMSZ4681	CF	2.28	2.40	2.52	50	2.000	1.0
TMMSZ4682	CH	2.57	2.70	2.84	50	1.000	1.0
TMMSZ4683	CJ	2.85	3.00	3.15	50	0.800	1.0
TMMSZ4684	CK	3.14	3.30	3.47	50	7.500	1.5
TMMSZ4685	CM	3.42	3.60	3.78	50	7.500	2.0
TMMSZ4686	CN	3.71	3.90	4.10	50	5.000	2.0
TMMSZ4687	CP	4.09	4.30	4.52	50	4.000	2.0
TMMSZ4688	CT	4.47	4.70	4.94	50	10.000	3.0
TMMSZ4689	CU	4.85	5.10	5.36	50	10.000	3.0
TMMSZ4690	CV	5.32	5.60	5.88	50	10.000	4.0
TMMSZ4691	CA	5.89	6.20	6.51	50	10.000	5.0
TMMSZ4692	CX	6.46	6.80	7.14	50	10.000	5.1
TMMSZ4693	CY	7.13	7.50	7.88	50	10.000	5.7
TMMSZ4694	CZ	7.79	8.20	8.61	50	1.000	6.2
TMMSZ4695	DC	8.27	8.70	9.14	50	1.000	6.6
TMMSZ4696	DD	8.65	9.10	9.56	50	1.000	6.9
TMMSZ4697	DE	9.50	10.00	10.50	50	1.000	7.6
TMMSZ4698	DF	10.45	11.00	11.55	50	0.050	8.4
TMMSZ4699	DH	11.40	12.00	12.60	50	0.050	9.1
TMMSZ4700	DJ	12.35	13.00	13.65	50	0.050	9.8
TMMSZ4701	DK	13.30	14.00	14.70	50	0.050	10.6
TMMSZ4702	DM	14.25	15.00	15.75	50	0.050	11.4
TMMSZ4703	DN	15.20	16.00	16.80	50	0.050	12.1
TMMSZ4704	DP	16.15	17.00	17.85	50	0.050	12.9
TMMSZ4705	DT	17.10	18.00	18.90	50	0.050	13.6
TMMSZ4706	DU	18.05	19.00	19.95	50	0.050	14.4
TMMSZ4707	DV	19.00	20.00	21.00	50	0.010	15.2
TMMSZ4708	DA	20.90	22.00	23.10	50	0.010	16.7
TMMSZ4709	DX	22.80	24.00	25.20	50	0.010	18.2
TMMSZ4710	DY	23.75	25.00	26.25	50	0.010	19.0
TMMSZ4711	EA	25.65	27.00	28.35	50	0.010	20.4
TMMSZ4712	EC	26.60	28.00	29.40	50	0.010	21.2
TMMSZ4713	ED	28.50	30.00	31.50	50	0.010	22.8
TMMSZ4714	EE	31.35	33.00	34.65	50	0.010	25.0
TMMSZ4715	EF	34.20	36.00	37.80	50	0.010	27.3
TMMSZ4716	EH	37.05	39.00	40.95	50	0.010	29.6
TMMSZ4717	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)

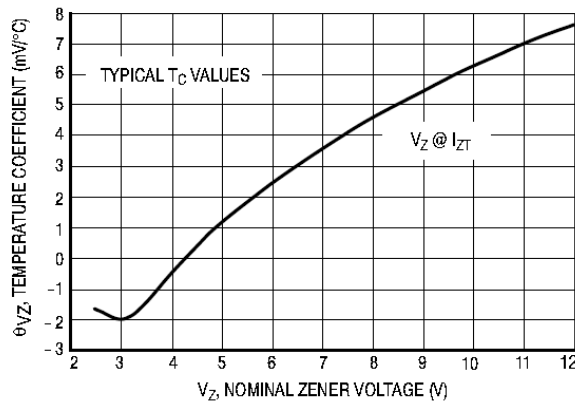


Figure 1 Temperature Coefficients
(Temperature Range -55°C to $+150^\circ\text{C}$)

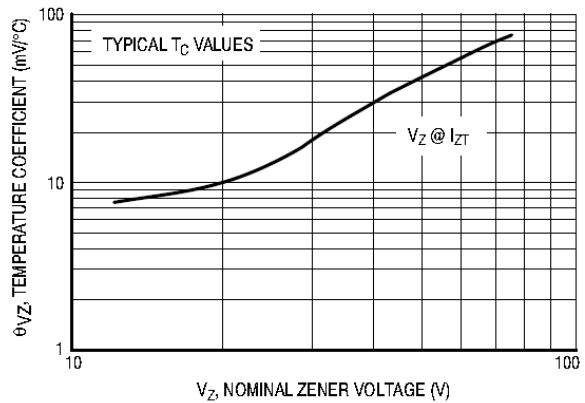


Figure 2 Temperature Coefficients
(Temperature Range -55°C to $+150^\circ\text{C}$)

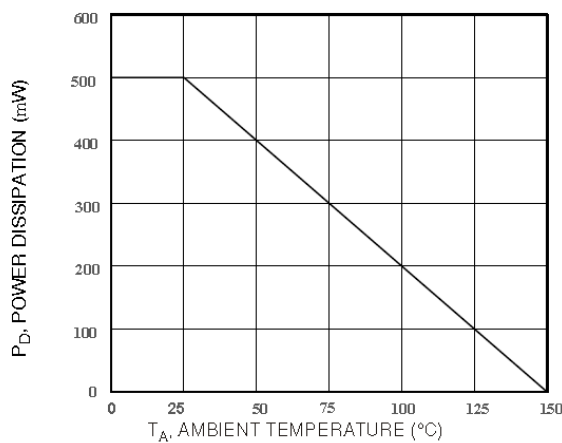


Figure 3 Steady State Power Derating

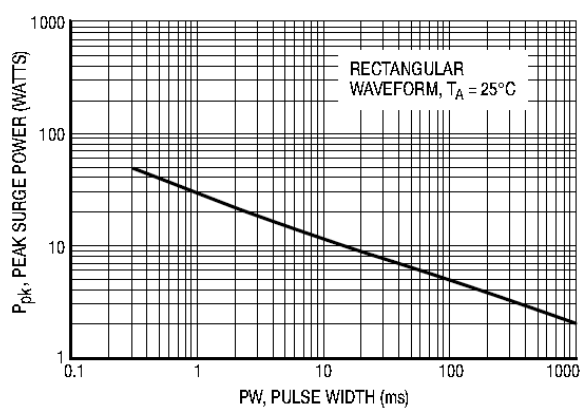


Figure 4 Maximum Nonrepetitive Surge Power

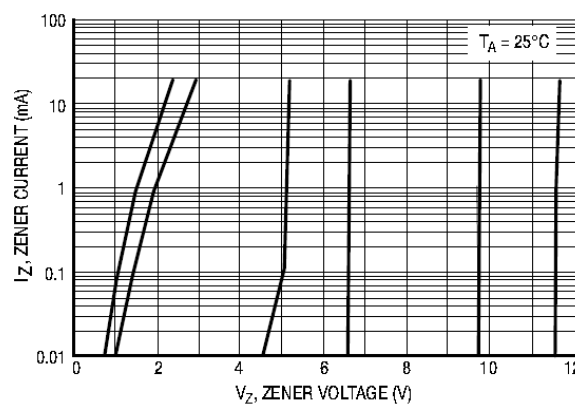


Figure 5 Zener Voltage versus Zener Current
(V_Z Up to 12 V)

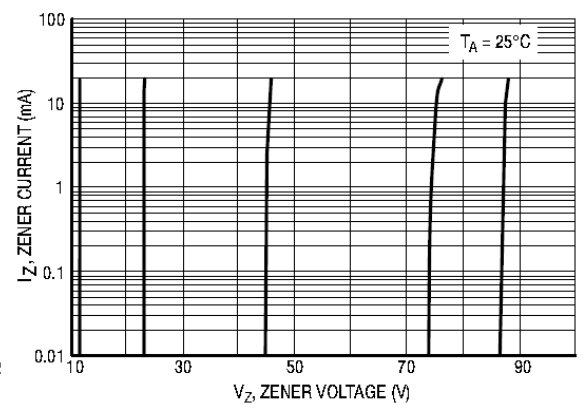


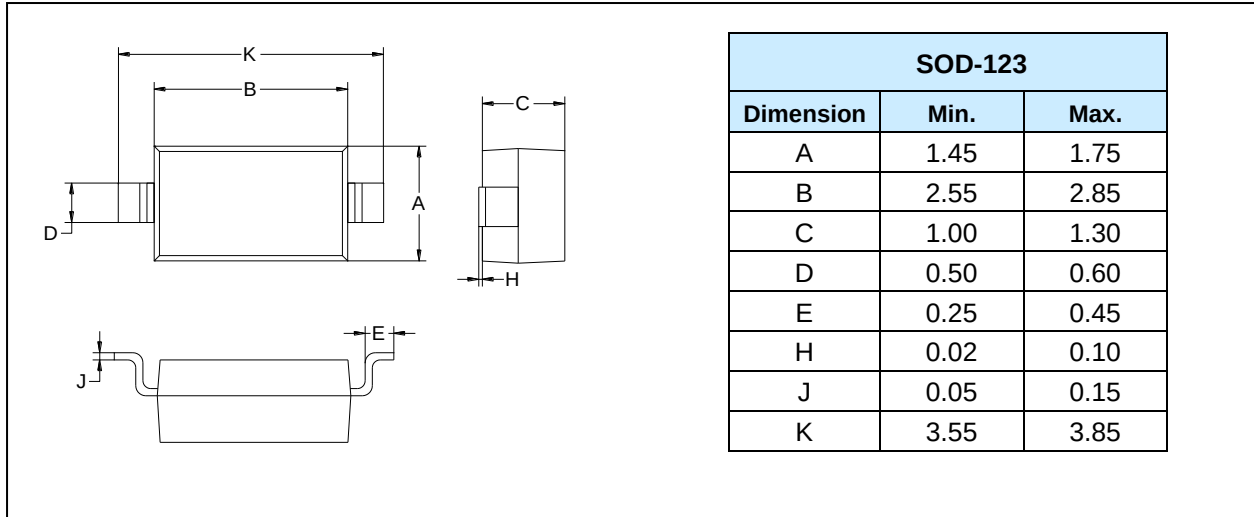
Figure 6 Zener Voltage versus Zener Current
(12 V to 91 V)

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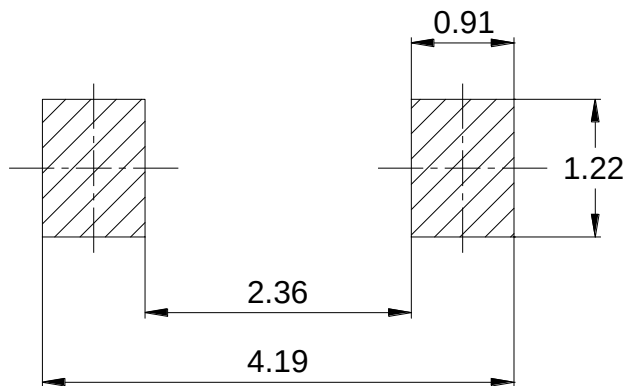
TMMSZ46XX - TMMSZ47XX

PACKAGE OUTLINE (Unit: mm)

Plastic surface mounted package



MOUNTING PAD LAYOUT (Unit: mm)



PACKAGE INFORMATION

Part Number	Package	Shipping Quantity
TMMSZ46XX – TMMSZ47XX	SOD-123	3000 pcs / Tape & Reel