TECH PUBLIC
台舟电子

MMSZ4xxxT1G-TP Series
500m Watt Zener Voltage Regulators

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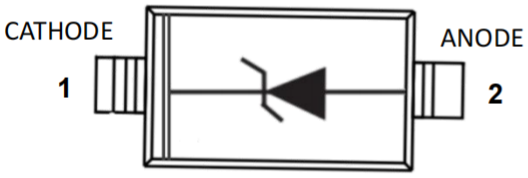
Features

- Low Zener Impedance
- Power Dissipation of 500mW
- High Stability and High Reliability
- Halogen free and RoHS compliant
- SOD123 surface mount package

Applications

- General voltage regulation
- Mobile & handheld systems
- Household Electric Appliances
- Industrial automation
- communication field

Pin Configuration



SOD123

Maximum Ratings& Thermal Characteristics

(Tamb=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Forward Voltage @ IF=10mA	VF	0.9	V
Power Dissipation	PD	500	mW
Thermal Resistance (Junction-to-Ambient)	RθJA	340	°C/W
Junction Temperature Range	TJ	-55 ~ +150	°C
Storage Temperature Range	TSTG	-55 ~ +150	°C

Electrical Characteristics (TA=25°C unless otherwise specified)

Part Number	Zener Voltage				Leakage Current	
	V_Z (Volts)			@ I_{ZT}	I_R @ V_R	
	Min	Nom	Max	mA	μA	Volts
MMSZ4678T1G -TP	1.71	1.8	1.89	5	7.5	1
MMSZ4679T1G -TP	1.90	2.0	2.10	5	5	1
MMSZ4680T1G -TP	2.09	2.2	2.31	5	4	1
MMSZ4681T1G -TP	2.28	2.4	2.52	5	2	1
MMSZ4682T1G -TP	2.565	2.7	2.835	5	1	1
MMSZ4683T1G -TP	2.85	3.0	3.15	5	0.8	1
MMSZ4684T1G -TP	3.13	3.3	3.47	5	7.5	1.5
MMSZ4685T1G -TP	3.42	3.6	3.78	5	7.5	2
MMSZ4686T1G -TP	3.70	3.9	4.10	5	5	2
MMSZ4687T1G -TP	4.09	4.3	4.52	5	4	2
MMSZ4688T1G -TP	4.47	4.7	4.94	5	10	3
MMSZ4689T1G -TP	4.85	5.1	5.36	5	10	3
MMSZ4690T1G -TP	5.32	5.6	5.88	5	10	4
MMSZ4691T1G -TP	5.89	6.2	6.51	5	10	5
MMSZ4692T1G -TP	6.46	6.8	7.14	5	10	5.1
MMSZ4693T1G -TP	7.13	7.5	7.88	5	10	5.7
MMSZ4694T1G -TP	7.79	8.2	8.61	5	1	6.2
MMSZ4695T1G -TP	8.27	8.7	9.14	5	1	6.6
MMSZ4696T1G -TP	8.65	9.1	9.56	5	1	6.9
MMSZ4697T1G -TP	9.50	10	10.50	5	1	7.6
MMSZ4698T1G -TP	10.45	11	11.55	5	0.05	8.4
MMSZ4699T1G -TP	11.40	12	12.60	5	0.05	9.1
MMSZ4700T1G -TP	12.35	13	13.65	5	0.05	9.8
MMSZ4701T1G -TP	13.30	14	14.70	5	0.05	10.6
MMSZ4702T1G -TP	14.25	15	15.75	5	0.05	11.4
MMSZ4703T1G -TP	15.20	16	16.80	5	0.05	12.1
MMSZ4704T1G -TP	16.15	17	17.85	5	0.05	12.9
MMSZ4705T1G -TP	17.10	18	18.90	5	0.05	13.6

Electrical Characteristics (TA=25°C unless otherwise specified)

Part Number	Zener Voltage				Leakage Current	
	V_Z (Volts)			@ I_{ZT}	I_R @ V_R	
	Min	Nom	Max	mA	μA	Volts
MMSZ4706T1G -TP	18.05	19	19.95	5	0.05	14.4
MMSZ4707T1G -TP	19.00	20	21.00	5	0.01	15.2
MMSZ4708T1G -TP	20.90	22	23.10	5	0.01	16.7
MMSZ4709T1G -TP	22.80	24	25.20	5	0.01	18.2
MMSZ4710T1G -TP	23.75	25	26.25	5	0.01	19.0
MMSZ4711T1G -TP	25.65	27	28.35	5	0.01	20.4
MMSZ4712T1G -TP	26.60	28	29.40	5	0.01	21.2
MMSZ4713T1G -TP	28.50	30	31.50	5	0.01	22.8
MMSZ4714T1G -TP	31.35	33	34.65	5	0.01	25.0
MMSZ4715T1G -TP	34.20	36	37.80	5	0.01	27.3
MMSZ4716T1G -TP	37.05	39	40.95	5	0.01	29.6
MMSZ4717T1G -TP	40.85	43	45.15	5	0.01	32.6

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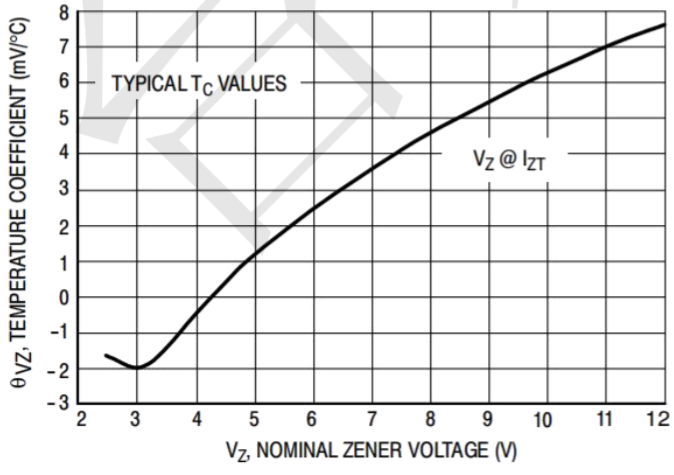
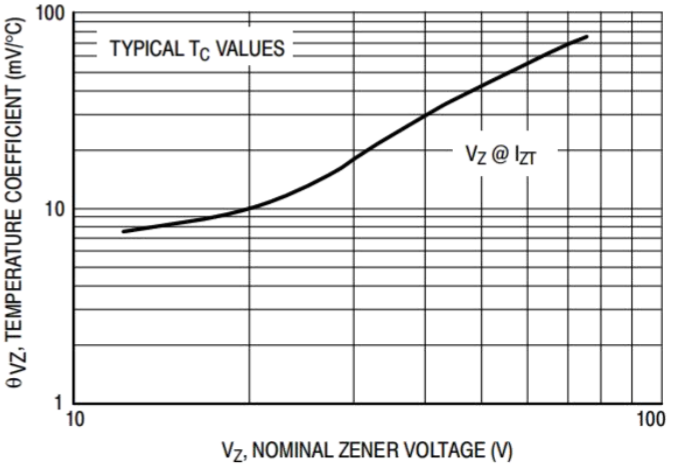
Typical Characteristics Curves



Temperature Coefficients
(Temperature Range –55°C to +150°C)



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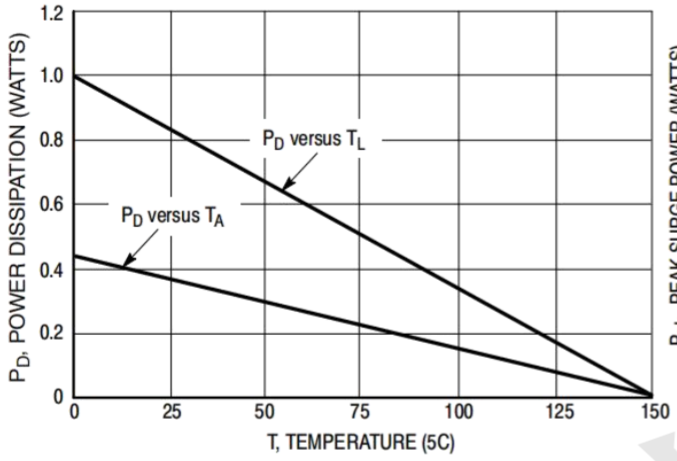
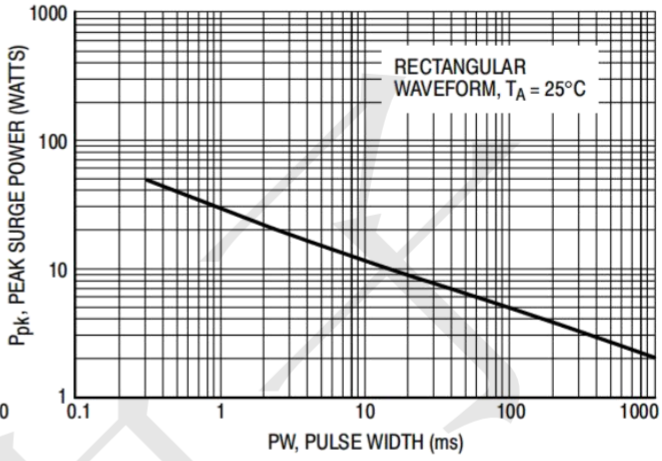
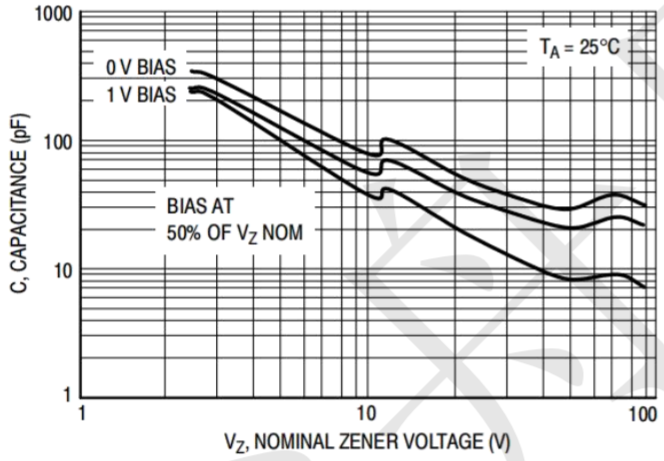


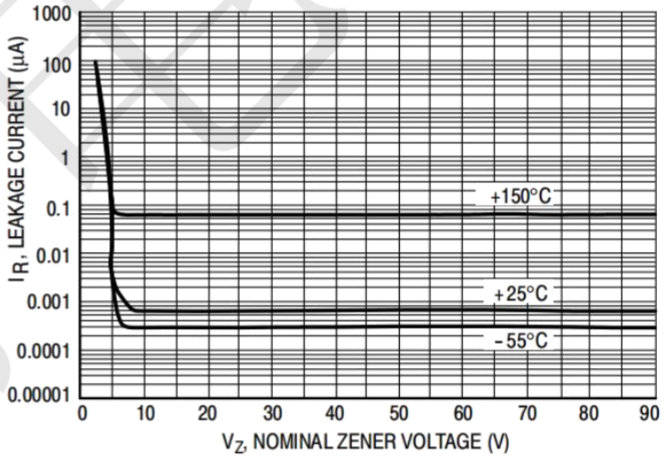
Steady State Power Derating



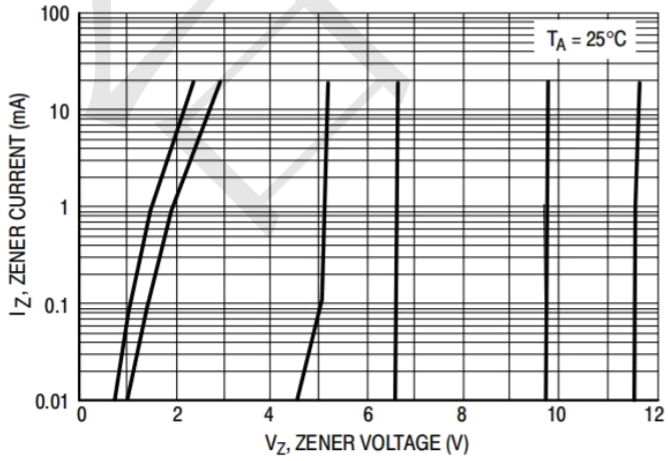
Maximum Nonrepetitive Surge Power



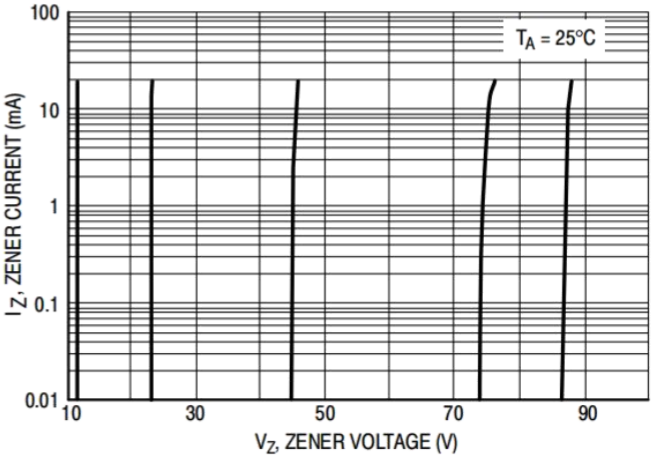
Typical Capacitance



Typical Leakage Current



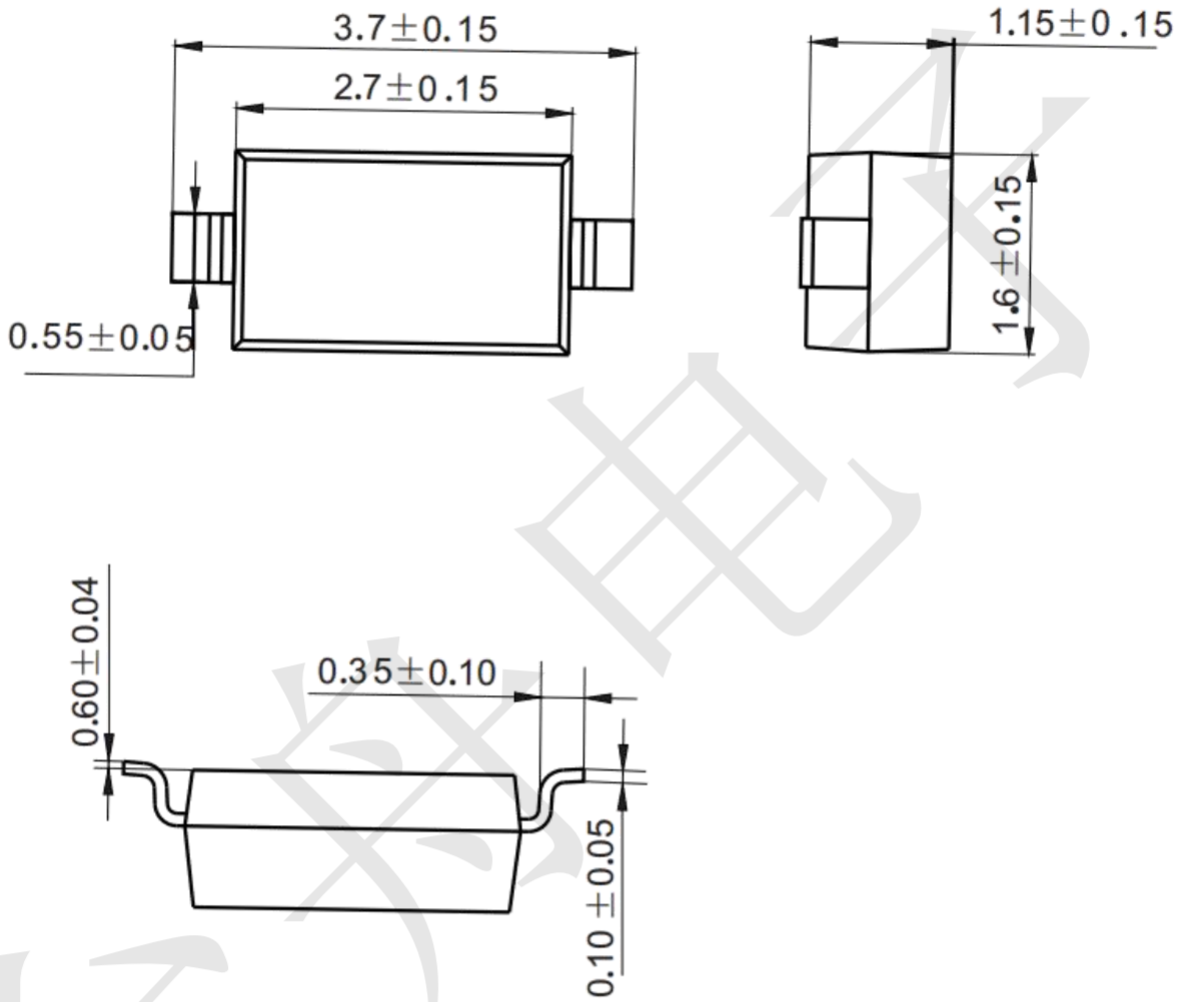
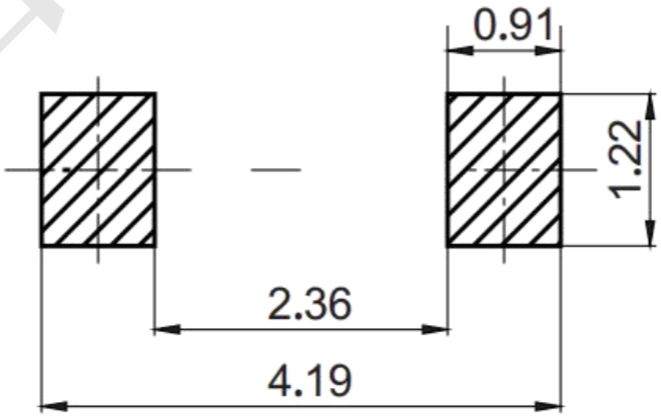
Zener Voltage versus Zener Current (V_Z Up to 12 V)



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

Package Outline Dimensions (unit: mm)

SOD123



Mounting Pad Layout (unit: mm)