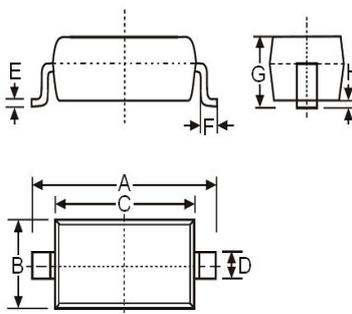


SURFACE MOUNT ZENER DIODE	REVERSE VOLTAGE – 1.8 to 43 Volts POWER DISSIPATION – 0.5 Watts																														
<p>FEATURES</p> <ul style="list-style-type: none"> • Planar die construction • 500mW power dissipation rating • Ultra-small surface mount package <p>MECHANICAL DATA</p> <ul style="list-style-type: none"> • Case: SOD-123 Plastic • Case Material: “Green” molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl) • Moisture Sensitivity: Level 1 per J-STD-020D • Lead Free in RoHS 2002/95/EC Compliant 	<p style="text-align: center;">SOD-123</p> <div style="display: flex; align-items: center;">  <table border="1" style="margin-left: 20px;"> <thead> <tr> <th colspan="3">SOD-123</th> </tr> <tr> <th>Dim.</th> <th>Min.</th> <th>Max.</th> </tr> </thead> <tbody> <tr><td>A</td><td>3.55</td><td>3.85</td></tr> <tr><td>B</td><td>1.50</td><td>1.70</td></tr> <tr><td>C</td><td>2.60</td><td>2.80</td></tr> <tr><td>D</td><td>0.45</td><td>0.65</td></tr> <tr><td>E</td><td>0.08</td><td>0.15</td></tr> <tr><td>F</td><td>0.25</td><td>0.45</td></tr> <tr><td>G</td><td>1.05</td><td>1.25</td></tr> <tr><td>H</td><td>0.00</td><td>0.10</td></tr> </tbody> </table> </div> <p style="text-align: center; font-size: small;">Dimensions in millimeter</p>	SOD-123			Dim.	Min.	Max.	A	3.55	3.85	B	1.50	1.70	C	2.60	2.80	D	0.45	0.65	E	0.08	0.15	F	0.25	0.45	G	1.05	1.25	H	0.00	0.10
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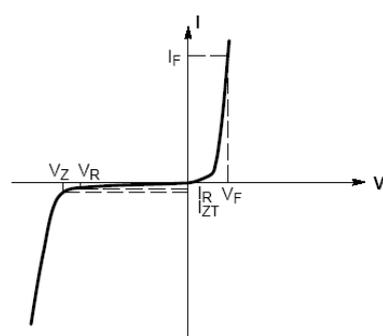
Maximum Ratings & Thermal Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Forward Voltage @IF=10mA	V _F	0.9	V
Power Dissipation	P _D	500	mW
Thermal Resistance, Junction to Ambient	R _{θJA}	357	°C/W
Operating Temperature Range	T _J	150	°C
Storage Temperature Range	T _{STG}	-65~+150	°C

Device Marking :

Device P/N	Marking	Pin Diagram	Equivalent Circuit Diagram
MMSZ4678	XXX=Specific device code (See below table)		

Electrical Characteristics @ T_A = 25°C unless otherwise specified

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	

Device	Device marking	Zener Voltage				Maximum Reverse Current	
		VZ@IZT			IZT	IR @VR	
		Nom	Min	Max	uA	uA	V
MMSZ4678	CC	1.8	1.71	1.89	50	7.5	1.0
MMSZ4679	CD	2.0	1.90	2.10	50	5.0	1.0
MMSZ4680	CE	2.2	2.09	2.31	50	4.0	1.0
MMSZ4681	CF	2.4	2.28	2.52	50	2.0	1.0
MMSZ4682	CH	2.7	2.57	2.84	50	1.0	1.0
MMSZ4683	CJ	3.0	2.85	3.15	50	0.8	1.0
MMSZ4684	CK	3.3	3.14	3.47	50	7.5	1.5
MMSZ4685	CM	3.6	3.42	3.78	50	7.5	2.0
MMSZ4686	CN	3.9	3.71	4.10	50	5.0	2.0
MMSZ4687	CP	4.3	4.09	4.52	50	4.0	2.0
MMSZ4688	CT	4.7	4.47	4.94	50	10.0	3.0
MMSZ4689	CU	5.1	4.85	5.36	50	10.0	3.0
MMSZ4690	CV	5.6	5.32	5.88	50	10.0	4.0
MMSZ4691	CA	6.2	5.89	6.51	50	10.0	5.0
MMSZ4692	CX	6.8	6.46	7.14	50	10.0	5.1
MMSZ4693	CY	7.5	7.13	7.88	50	10.0	5.7
MMSZ4694	CZ	8.2	7.79	8.61	50	1.0	6.2
MMSZ4695	DC	8.7	8.27	9.14	50	1.0	6.6
MMSZ4696	DD	9.1	8.65	9.56	50	1.0	6.9
MMSZ4697	DE	10	9.50	10.50	50	1.0	7.6
MMSZ4698	DF	11	10.45	11.55	50	0.05	8.4
MMSZ4699	DH	12	11.40	12.60	50	0.05	9.1
MMSZ4700	DJ	13	12.35	13.65	50	0.05	9.8
MMSZ4701	DK	14	13.30	14.70	50	0.05	10.6
MMSZ4702	DM	15	14.25	15.75	50	0.05	11.4
MMSZ4703	DN	16	15.20	16.80	50	0.05	12.1
MMSZ4704	DP	17	16.15	17.85	50	0.05	12.9
MMSZ4705	DT	18	17.10	18.90	50	0.05	13.6
MMSZ4706	DU	19	18.05	19.95	50	0.05	14.4
MMSZ4707	DV	20	19.00	21.00	50	0.01	15.2
MMSZ4708	DA	22	20.90	23.10	50	0.01	16.7
MMSZ4709	DX	24	22.80	25.20	50	0.01	18.2
MMSZ4710	DY	25	23.75	26.25	50	0.01	19.0
MMSZ4711	EA	27	25.65	28.35	50	0.01	20.4
MMSZ4712	EC	28	26.60	29.40	50	0.01	21.2
MMSZ4713	ED	30	28.50	31.50	50	0.01	22.8
MMSZ4714	EE	33	31.35	34.65	50	0.01	25.0
MMSZ4715	EF	36	34.20	37.80	50	0.01	27.3
MMSZ4716	EH	39	37.05	40.95	50	0.01	29.6
MMSZ4717	EJ	43	40.85	45.15	50	0.01	32.6

REV. 3, Apr-2011, KSIR11

Notes:

1. Nominal Zener voltage is measured with the device junction in thermal equilibrium at TL = 30°C ±1°C.

MMSZ4x Series Typical Characteristics

Fig.1 Power Derating Curve

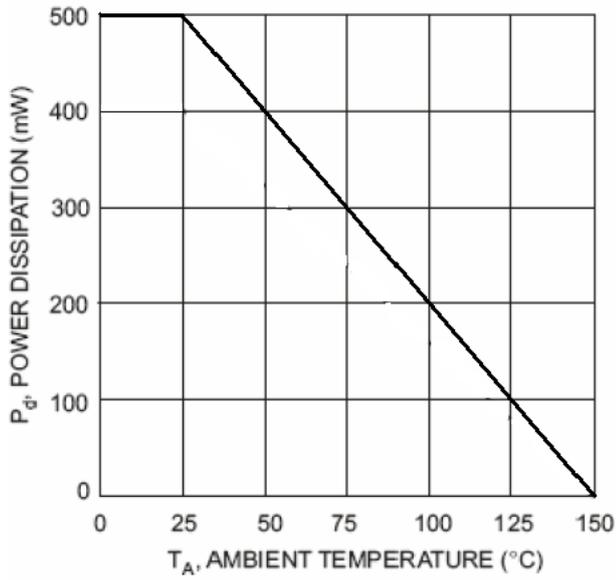


Fig. 1 Power Derating Curve

Fig.2 Typical Capacitance

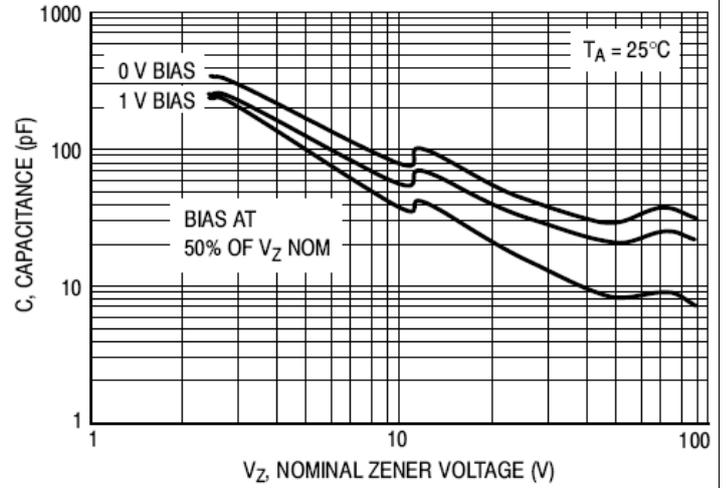


Fig.3 Zener Voltage versus Zener Current (V_Z Up to 12 V) Fig.4 Zener Voltage versus Zener Current (V_Z Up to 43 V)

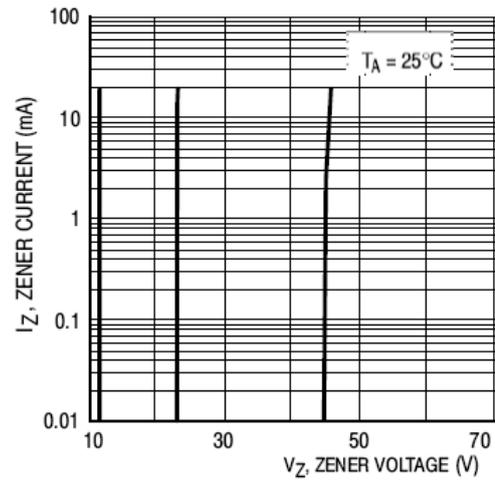
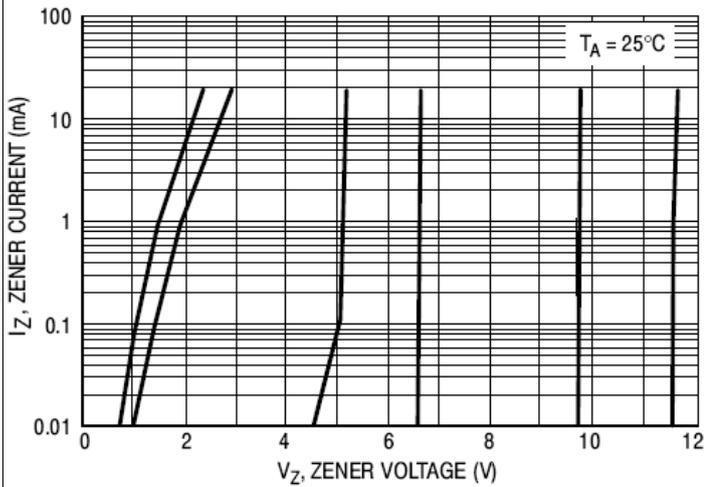
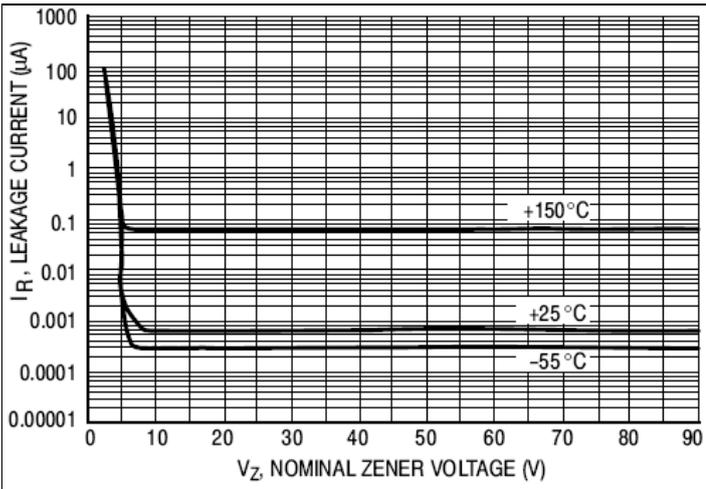


Fig.5 Typical Leakage Current



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