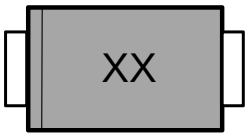
VOLTAGE RANGE
1.8 to 43 Volts
500 mW

FEATURES

齐纳击穿阻抗低; Low Zener Impedance
最大功率耗散 500mW; Power Dissipation of 500mW
高稳定性和可靠性。High Stability and High Reliability



MECHANICAL DATA



封装: SOD-123 封装 SOD-123 Small Outline Plastic Package
极性: 色环端为负极 Polarity: Color band denotes cathode end
环氧树脂 UL 易燃等级 Epoxy UL: 94V-0
安装位置: 任意 Mounting Position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

极限值和温度特性(TA = 25℃ 除非另有规定)

参数 Parameters	符号 Symbol	数值 Value	单位 Unit
功率消耗 Power Dissipation	Pd	500 1)	mW
正向压降 Forward Voltage @IF=10mA	Vf	0.9 2)	V
存储温度 Storage temperature range	Ts	-65-+150	℃

1) Device mounted on ceramic PCB: 7.6mm x 9.4mm x 0.87mm with pad areas 25mm²
2) Short duration test pulse used to minimize self-heating effect
3) f=1KHz

Characteristics at Ta = 25℃

电特性 (TA = 25℃ 除非另有规定)

Device	Marking	Zener Voltage Range				Maximum Reverse Current	
		Vz@Izt			Izt	IR	VR
		Min(V)	Nom (V)	Max(V)	uA	uA	V
MMSZ4678	CC	1.71	1.8	1.89	50	7.5	1
MMSZ4679	CD	1.90	2.0	2.10	50	5	1
MMSZ4680	CE	2.09	2.2	2.31	50	4	1
MMSZ4681	CF	2.28	2.4	2.52	50	2	1
MMSZ4682	CH	2.57	2.7	2.84	50	1	1
MMSZ4683	CJ	2.85	3.0	3.15	50	0.8	1
MMSZ4684	CK	3.13	3.3	3.47	50	7.5	1.5
MMSZ4685	CM	3.42	3.6	3.78	50	7.5	2
MMSZ4686	CN	3.70	3.9	4.10	50	5	2
MMSZ4687	CP	4.09	4.3	4.52	50	4	2
MMSZ4688	CT	4.47	4.7	4.94	50	10	3
MMSZ4689	CU	4.85	5.1	5.36	50	10	3
MMSZ4690	CV	5.32	5.6	5.88	50	10	4
MMSZ4691	CA	5.89	6.2	6.51	50	10	5
MMSZ4692	CX	6.46	6.8	7.14	50	10	5.1
MMSZ4693	CY	7.13	7.5	7.88	50	10	5.7
MMSZ4694	CZ	7.79	8.2	8.61	50	1	6.2
MMSZ4695	DC	8.27	8.7	9.14	50	1	6.6

Characteristics at Ta = 25℃

电特性 (TA = 25℃ 除非另有规定)

Device	Marking	Zener Voltage Range				Maximum Reverse Current	
		Vz@Izt			Izt	IR	VR
		Min(V)	Nom (V)	Max(V)	uA	uA	V
MMSZ4696	DD	8.65	9.1	9.56	50	1	6.9
MMSZ4697	DE	9.50	10.0	10.50	50	1	7.6
MMSZ4698	DF	10.45	11.0	11.55	50	0.05	8.4
MMSZ4699	DH	11.40	12.0	12.60	50	0.05	9.1
MMSZ4700	DJ	12.35	13.0	13.65	50	0.05	9.8
MMSZ4701	DK	13.30	14.0	14.70	50	0.05	10.6
MMSZ4702	DM	14.25	15.0	15.75	50	0.05	11.4
MMSZ4703	DN	15.20	16.0	16.80	50	0.05	12.1
MMSZ4704	DP	16.15	17.0	17.85	50	0.05	12.9
MMSZ4705	DT	17.10	18.0	18.90	50	0.05	13.6
MMSZ4706	DU	18.05	19.0	19.95	50	0.05	14.4
MMSZ4707	DV	19.00	20.0	21.00	50	0.01	15.2
MMSZ4708	DA	20.90	22.0	23.10	50	0.01	16.7
MMSZ4709	DX	22.80	24.0	25.20	50	0.01	18.2
MMSZ4710	DY	23.75	25.0	26.25	50	0.01	19
MMSZ4711	EA	25.65	27.0	28.35	50	0.01	20.4
MMSZ4712	EC	26.60	28.0	29.40	50	0.01	21.2
MMSZ4713	ED	28.50	30.0	31.50	50	0.01	22.8
MMSZ4714	EE	31.35	33.0	34.65	50	0.01	25
MMSZ4715	EF	34.20	36.0	37.80	50	0.01	27.3
MMSZ4716	EH	37.05	39.0	40.95	50	0.01	29.6
MMSZ4717	EJ	40.85	43.0	45.15	50	0.01	32.6

RATING AND CHARACTERISTIC CURVES

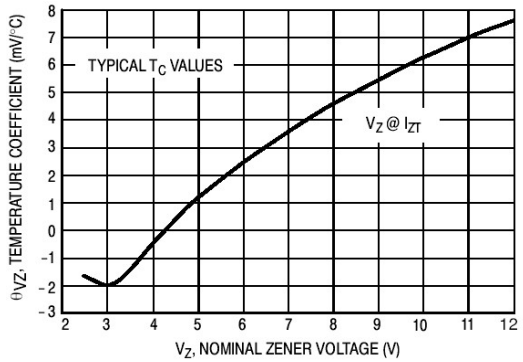


Figure 1. Temperature Coefficients (Temperature Range − 55°C to +150°C)

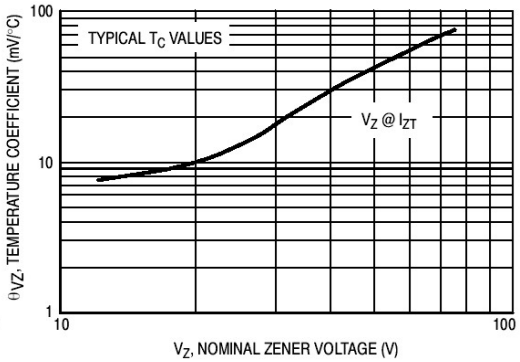


Figure 2. Temperature Coefficients (Temperature Range − 55°C to +150°C)

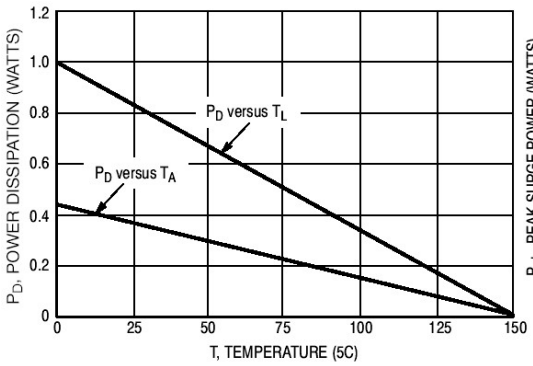


Figure 3. Steady State Power Derating

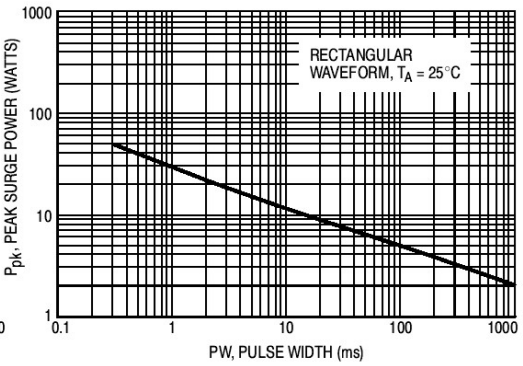


Figure 4. Maximum Nonrepetitive Surge Power

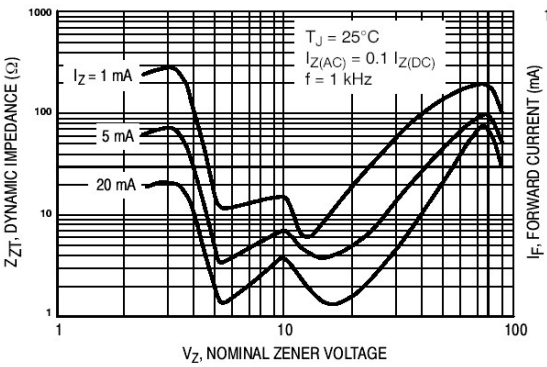


Figure 5. Effect of Zener Voltage on Zener Impedance

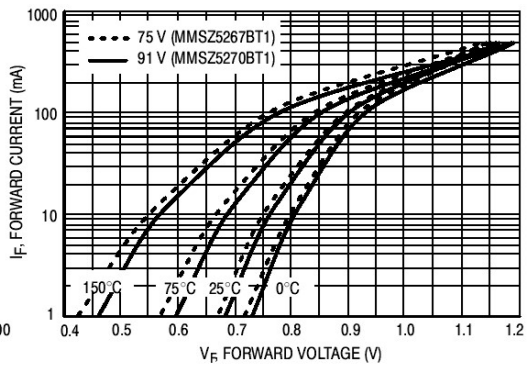


Figure 6. Typical Forward Voltage

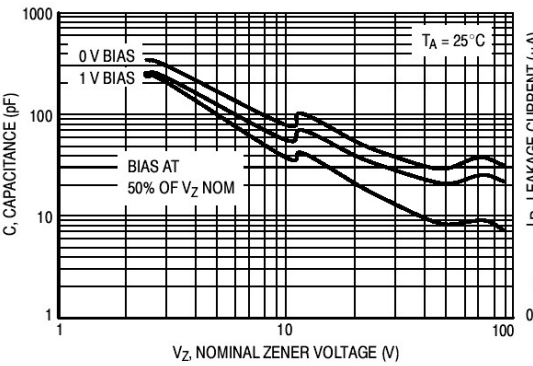


Figure 7. Typical Capacitance

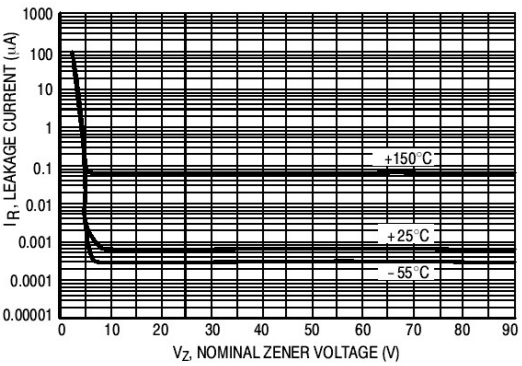
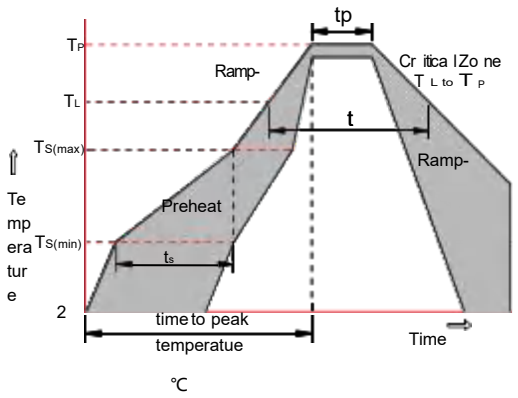


Figure 8. Typical Leakage Current

Soldering parameters

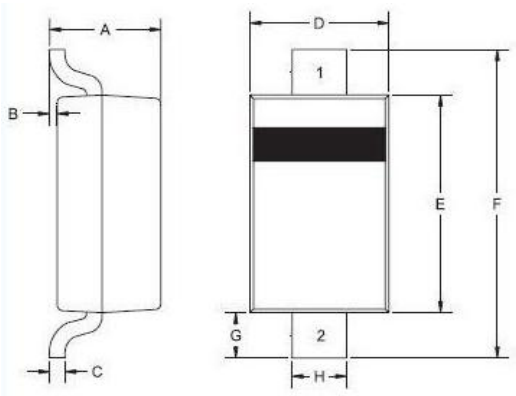
Reflow Condition		Pb-Free assembly (see as bellow)
Pre Heat	-Temperature Min ($T_{s(min)}$)	+150℃
	-Temperature Max($T_{s(max)}$)	+200℃
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquid us Temp (T_L) to peak)		3℃/sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3℃/sec. Max
Reflow	-Temperature(T_L)(Liquid us)	+217℃
	-Temperature(t_L)	60-150 secs.
Peak Temp (T_p)		+260(+0/-5)℃
Time within 5℃ of actual Peak Temp (t_p)		30 secs. Max
Ramp-down Rate		6℃/sec. Max
Time 25℃ to Peak Temp (T_P)		8 min. Max
Do not exceed		+260℃

FIG5: Reflow condition

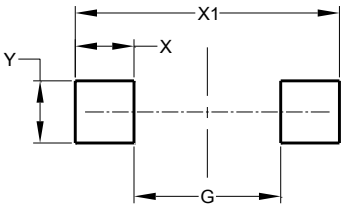


Package Dimensions & Suggested Pad Layout

SOD123



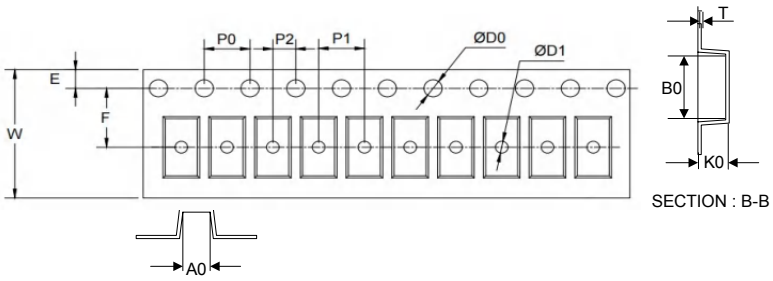
SOD123		
Dim	**Min**	**Max**
A	0.95	1.35
B	0.00	0.12
C	-	0.20
D	1.40	1.80
E	2.50	2.80
F	3.60	3.90
G	0.40	-
H	0.50	0.70
All Dimensions in mm		



Dimensions	Value (in mm)
G	2.20
X	1.20
X1	4.60
Y	1.20

Tape & rell specification

Tape

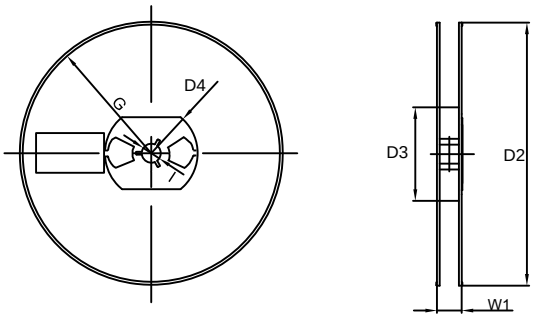


SECTION : A-A

SECTION : B-B

Symbol	Dimension (mm)
P0	4.00±0.20
P1	4.00±0.20
P2	2.00±0.20
D0	1.55±0.10
D1	1.00±0.20
E	1.75±0.20
F	3.60±0.20
W	8.00±0.40
A0	2.30±0.40
B0	4.00±0.40
K0	1.50±0.40
T	0.23±0.10

7” Reel



D2	177.0±3.0
D3	55Min.
D4	R24.0±3.0
G	R82.0±3.0
I	13.0±2.0
W1	11.0±3.0

Quantity: 3000PCS