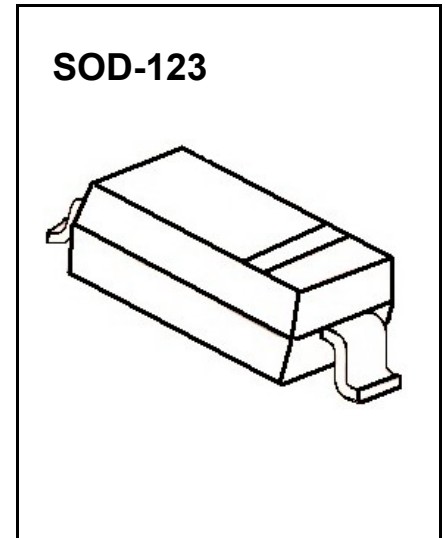


## ■ Features

- Low Zener Impedance
- Power Dissipation of 500mW
- High Stability and High Reliability

## ■ Mechanical Data

- package:SOD-123
- Polarity: Color band denotes cathode end
- Flammability rating of epoxy resin: UL 94V-0
- Mounting Position: Any.



## ■ ORDERING INFORMATION

- Part Number: MM1Zxx
- Package: SOD-123
- Quantity per reel: 3,000 pcs
- Packing: Tape & Reel
- Reel Size: 7 inches

## ■ Maximum Ratings & Thermal Characteristics(Ratings at 25 °C ambient temperature unless otherwise specified.)

Parameters	Symbol	Value	Unit
Power Dissipation	Pd	500 <sup>1)</sup>	mW
Forward Voltage @IF=10mA	Vf	0.9 <sup>2)</sup>	V
Thermal Resistance, Junction-to-Ambient	R <sub>θJA</sub>	340	°C/W
Thermal Resistance, Junction-to-Lead	R <sub>θJL</sub>	150 <sup>3)</sup>	°C/W
Storage temperature range	Ts	-65-+150	°C

1) Device mounted on ceramic PCB: 7.6mm x 9.4mm x 0.87mm with pad areas 25mm<sup>2</sup>

2) Short duration test pulse used to minimize self-heating effect

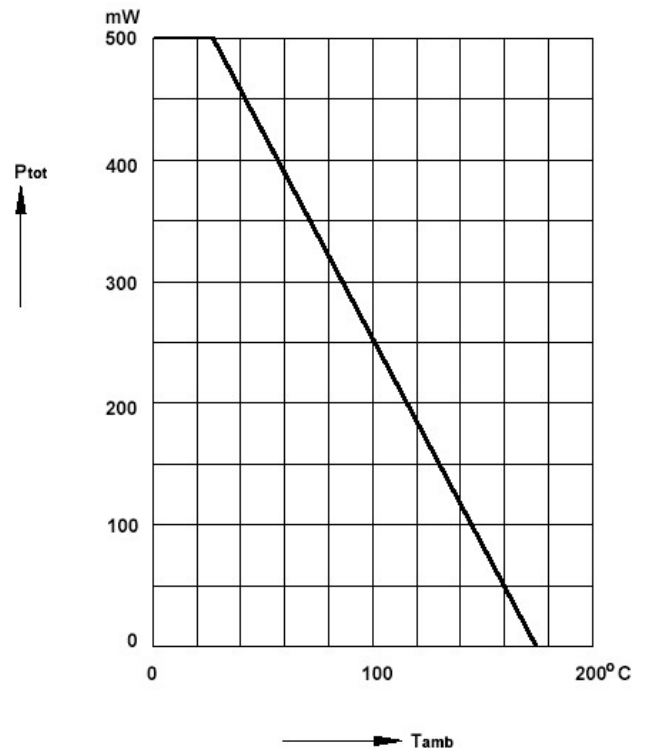
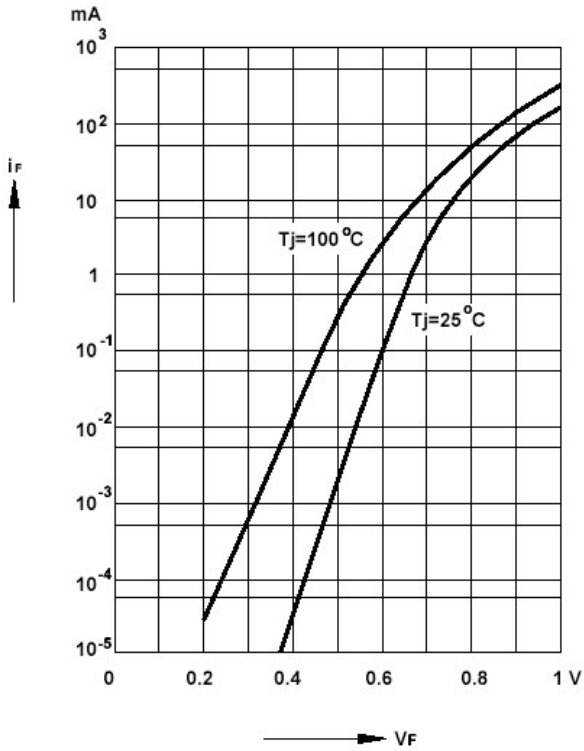
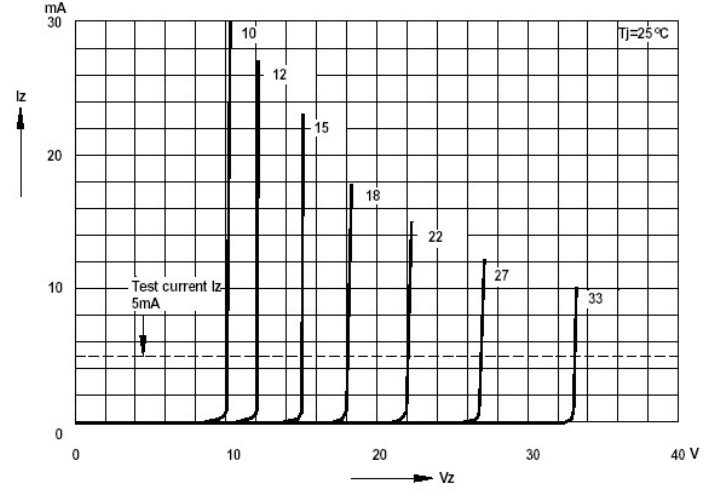
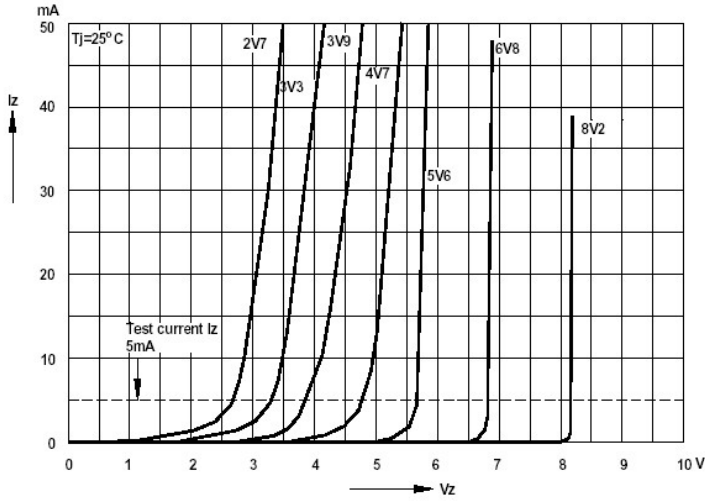
3) f=1KHz

**Electrical Characteristics**(Ratings at 25 °C ambient temperature unless otherwise specified)

Device	Marking	Zener Voltage Range				Maximum Zener Impedance			Maximum Reverse Current		Typical Temperature coefficient @ IZTC=mV/°C		Test Current IZTC
		Vz@Izt			Izt	Zzt @Izt	Zzk @Izk	Izk	IR	VR	Min	Max	
		Nom(V)	Min(V)	Max(V)	mA	Ω	Ω	mA	uA	V			
MM1Z2V4	WX	2.4	2.2	2.6	5	100	600	1.0	50	1.0	-3.5	0	5
MM1Z2V7	W1	2.7	2.5	2.9	5	100	600	1.0	20	1.0	-3.5	0	5
MM1Z3V0	W2	3.0	2.8	3.2	5	95	600	1.0	10	1.0	-3.5	0	5
MM1Z3V3	W3	3.3	3.1	3.5	5	95	600	1.0	5	1.0	-3.5	0	5
MM1Z3V6	W4	3.6	3.4	3.8	5	90	600	1.0	5	1.0	-3.5	0	5
MM1Z3V9	W5	3.9	3.7	4.1	5	90	600	1.0	3	1.0	-3.5	0	5
MM1Z4V3	W6	4.3	4.0	4.6	5	90	600	1.0	3	1.0	-3.5	0	5
MM1Z4V7	W7	4.7	4.4	5.0	5	80	500	1.0	3	2.0	-3.5	0.2	5
MM1Z5V1	W8	5.1	4.8	5.4	5	60	480	1.0	2	2.0	-2.7	1.2	5
MM1Z5V6	W9	5.6	5.2	6.0	5	40	400	1.0	1	2.0	-2.0	2.5	5
MM1Z6V2	WA	6.2	5.8	6.6	5	10	150	1.0	3	4.0	0.4	3.7	5
MM1Z6V8	WB	6.8	6.4	7.2	5	15	80	1.0	2	4.0	1.2	4.5	5
MM1Z7V5	WC	7.5	7.0	7.9	5	15	80	1.0	1	5.0	2.5	5.3	5
MM1Z8V2	WD	8.2	7.7	8.7	5	15	80	1.0	0.7	5.0	3.2	6.2	5
MM1Z9V1	WE	9.1	8.5	9.6	5	15	100	1.0	0.5	6.0	3.8	7.0	5
MM1Z10	WF	10	9.4	10.6	5	20	150	1.0	0.2	7.0	4.5	8.0	5
MM1Z11	WG	11	10.4	11.6	5	20	150	1.0	0.1	8.0	5.4	9.0	5
MM1Z12	WH	12	11.4	12.7	5	25	150	1.0	0.1	8.0	6.0	10.0	5
MM1Z13	WI	13	12.4	14.1	5	30	170	1.0	0.1	8.0	7.0	11.0	5
MM1Z15	WJ	15	13.8	15.6	5	30	200	1.0	0.1	10.5	9.2	13.0	5
MM1Z16	WK	16	15.3	17.1	5	40	200	1.0	0.1	11.2	10.4	14.0	5
MM1Z18	WL	18	16.8	19.1	5	45	225	1.0	0.1	12.6	12.4	16.0	5
MM1Z20	WM	20	18.8	21.2	5	55	225	1.0	0.1	14.0	14.4	18.0	5
MM1Z22	WN	22	20.8	23.3	5	55	250	1.0	0.1	15.4	16.4	20.0	5
MM1Z24	WO	24	22.8	25.6	5	70	250	1.0	0.1	16.8	18.4	22.0	5
MM1Z27	WP	27	25.1	28.9	2	80	300	0.5	0.1	18.9	21.4	25.3	2
MM1Z30	WQ	30	28.0	32.0	2	80	300	0.5	0.1	21.0	24.4	29.4	2
MM1Z33	WR	33	31.0	35.0	2	80	325	0.5	0.1	23.1	27.4	33.4	2
MM1Z36	WS	36	34.0	38.0	2	90	350	0.5	0.1	25.2	30.4	37.4	2
MM1Z39	WT	39	37.0	41.0	2	130	350	0.5	0.1	27.3	33.4	41.2	2
MM1Z43	WU	43	40.0	46.0	2	100	700	1.0	0.1	32.0	10.0	12.0	5
MM1Z47	WV	47	44.0	50.0	2	100	750	1.0	0.1	35.0	10.0	12.0	5
MM1Z51	WW	51	48.0	54.0	2	125	700	1.0	0.1	36.0	10.0	12.0	5
MM1Z56	XW	56	52.0	60.0	2	135	700	1.0	0.1	39.0	10.0	12.0	5

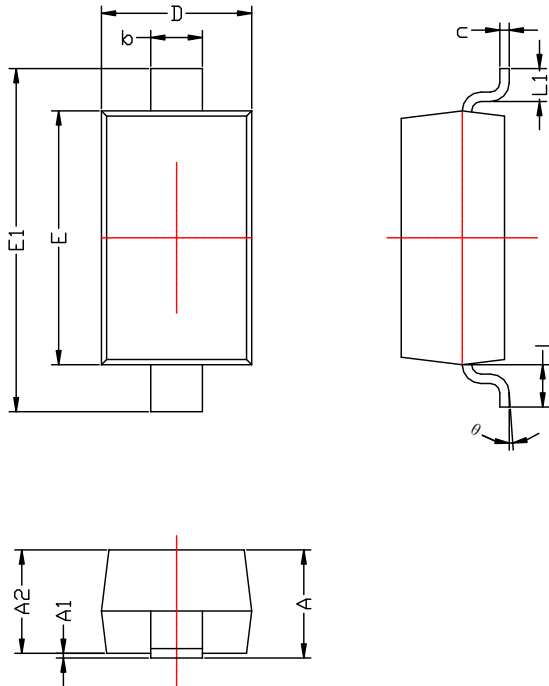


■ Typical Characteristics





■ SOD-123 Package Outline Dimensions



Symbol	Dimensions	
	MIN	MAX
A	1.050	1.250
A1	0.000	0.100
A2	1.050	1.150
b	0.450	0.650
c	0.080	0.150
D	1.500	1.700
E	2.600	2.800
E1	3.550	3.850
L	0.500REF	
L1	0.250	0.450
$\theta$	0°	8°