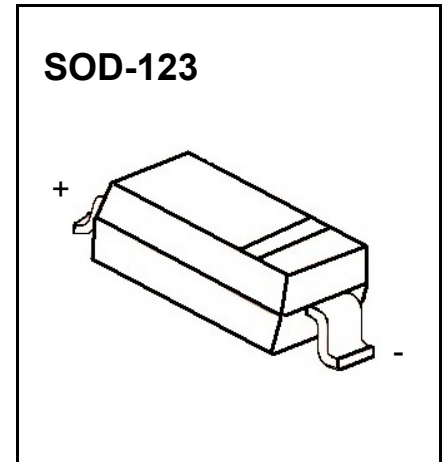


■ **Features**

- 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: MMSZxx
- Package: SOD-123
- Quantity per reel: 3,000 pcs
- Packing: T ape & 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 from Junction to Ambient	R <sub>θJA</sub>	357	°C/W
Junction Temperature	T <sub>J</sub>	150	°C
Storage temperature range	T <sub>STG</sub>	-65-+150	°C

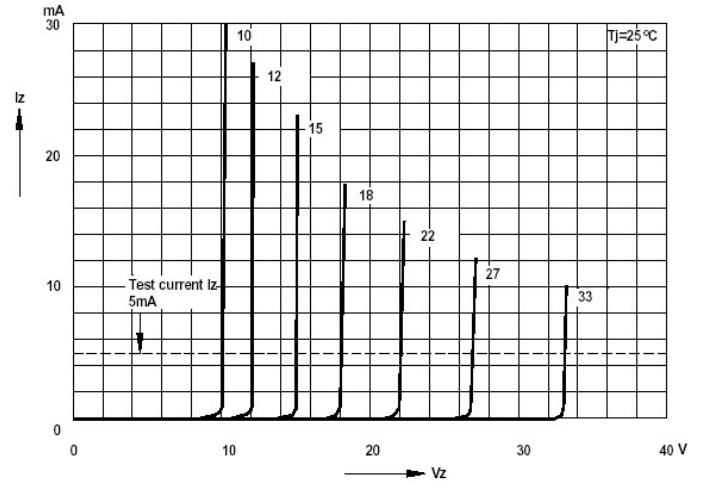
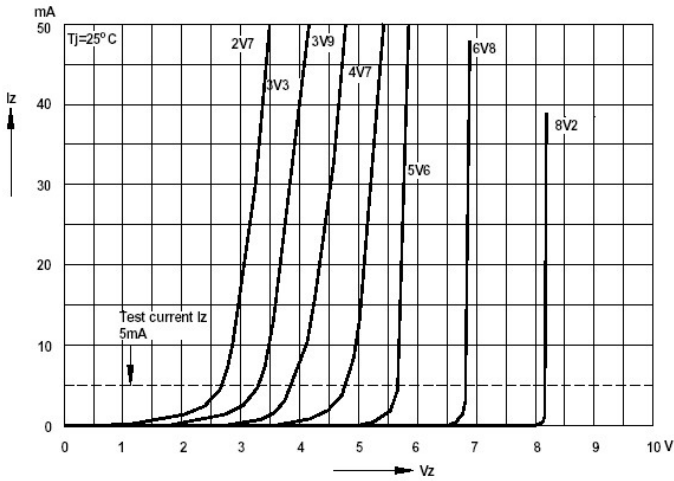
- 1) Device mounted on ceramic PCB: 7.6mm x 9.4mm x 0.87mm with pad areas 25mm<sup>2</sup>
- 2) Short duration test pulse used to minimize self-heating effect
- 3) f=1KHz

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

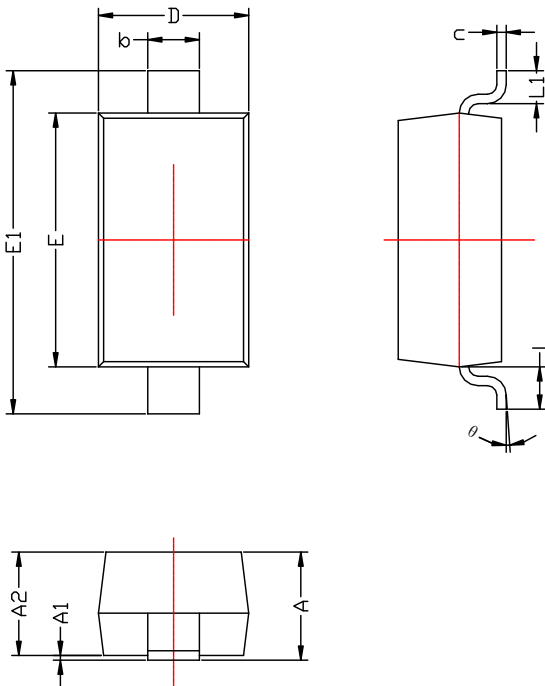
Device	Device Marking	VZ1(V)			ZZT	VZ2(V)		ZZK	IR	
		@IZ=IZT			Ω	@IZ		Ω	IR@VR	
		Min	Nom	Max		Min	Max		uA	V
MMSZ2V4	WX	2.28	2.4	2.52	100			600	50	1.0
MMSZ2V7	W1	2.57	2.7	2.84	100			600	20	1.0
MMSZ3V0	W2	2.85	3.0	3.15	95			600	10	1.0
MMSZ3V3	W3	3.14	3.3	3.47	95			600	5.0	1.0
MMSZ3V6	W4	3.42	3.6	3.78	90			600	5.0	1.0
MMSZ3V9	W5	3.71	3.9	4.10	90			600	3.0	1.0
MMSZ4V3	W6	4.09	4.3	4.52	90			600	3.0	1.0
MMSZ4V7	W7	4.47	4.7	4.94	80			500	3.0	2.0
MMSZ5V1	W8	4.85	5.1	5.36	60			480	2.0	2.0
MMSZ5V6	W9	5.32	5.6	5.88	40	4.8	6.0	400	1.0	2.0
MMSZ6V2	WA	5.89	6.2	6.51	10	5.6	6.6	150	3.0	4.0
MMSZ6V8	WB	6.46	6.8	7.14	15	6.3	7.2	80	2.0	4.0
MMSZ7V5	WC	7.13	7.5	7.88	15	6.9	7.9	80	1.0	5.0
MMSZ8V2	WD	7.79	8.2	8.61	15	7.6	8.7	80	0.7	5.0
MMSZ9V1	WE	8.65	9.1	9.56	15	8.4	9.6	100	0.5	6.0
MMSZ10	WF	9.50	10	10.50	20	9.3	10.6	150	0.2	7.0
MMSZ11	WG	10.45	11	11.55	20	10.2	11.6	150	0.1	8.0
MMSZ12	WH	11.40	12	12.60	25	11.2	12.7	150	0.1	8.0
MMSZ13	WI	12.35	13	13.65	30	12.3	14.0	170	0.1	8.0
MMSZ15	WJ	14.25	15	15.75	30	13.7	15.5	200	0.05	10.5
MMSZ16	WK	15.20	16	16.80	40	15.2	17.0	200	0.05	11.2
MMSZ18	WL	17.10	18	18.90	45	16.7	19.0	225	0.05	12.6
MMSZ20	WM	19.00	20	21.00	55	18.7	21.1	225	0.05	14.0
MMSZ22	WN	20.90	22	23.10	55	20.7	23.2	250	0.05	15.4
MMSZ24	WO	22.80	24	25.20	70	22.7	25.5	250	0.05	16.8
MMSZ27	WP	25.65	27	28.35	80	25	28.9	300	0.05	18.9
MMSZ30	WQ	28.50	30	31.50	80	27.8	32	300	0.05	21
MMSZ33	WR	31.35	33	34.65	80	30.8	35	325	0.05	23.1
MMSZ36	WS	34.20	36	37.8	90	33.8	38	350	0.05	25.2
MMSZ39	WT	37.05	39	40.95	130	36.7	41	350	0.05	27.3
MMSZ43	WU	40.85	43	45.15	150	39.7	46	375	0.05	30.1
MMSZ47	WV	44.65	47	49.35	170	43.7	50	375	0.05	32.9
MMSZ51	WW	48.45	51	53.55	180	47.6	54	400	0.05	35.7
MMSZ56	XW	53.20	56	58.80	135	52.0	60.0	700	0.1	39.0



■ Breakdown characteristics (at  $T_j = \text{constant}$  (pulsed))



■ 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°