

## SOD-123 Plastic-Encapsulate Diodes

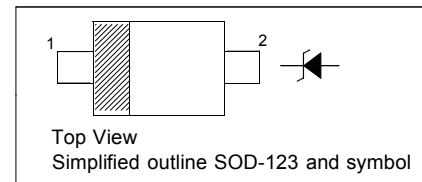
### ZENER DIODE

#### Features

- Pb-Free Packages are Available
- Wide Zener Reverse Voltage Range
- Small Package Size for High Density Applications
- ESD Rating of Class 3 (>16 kV) per Human Body Model

#### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



#### Maximum Ratings (T<sub>a</sub> =25°C unless otherwise specified )

Characteristic	Symbol	Value	Unit
Forward voltage @I <sub>F</sub> =10mA	V <sub>F</sub>	0.9	V
Power Dissipation	P <sub>D</sub>	350	mW
Thermal Resistance, Junction to Ambient Air	R <sub>θJA</sub>	357	°C/W
Operating and Storage Temperature Range	T <sub>i</sub> , T <sub>STG</sub>	-65 ~+150	°C

Notes: Device mounted on ceramic PCB;5.0mm×7.0mm with pad areas 35 mm<sup>2</sup>



**ELECTRICAL CHARACTERISTICS** ( $T_A = 25^\circ\text{C}$  unless otherwise noted)

Device	Device Marking	Zener Voltage (Notes 1)				Leakage Current	
		$V_Z$ (Volts)			@ $I_{ZT}$	$I_R @ V_R$	
		Min	Nom	Max	$\mu\text{A}$	$\mu\text{A}$	Volts
MMSZ4678	CC	1.71	1.8	1.89	50	7.5	1
MMSZ4679	CD	1.90	2.0	2.10	50	5	1
<b>MMSZ4680</b>	<b>CE</b>	<b>2.09</b>	<b>2.2</b>	<b>2.31</b>	<b>50</b>	<b>4</b>	<b>1</b>
MMSZ4681	CF	2.28	2.4	2.52	50	2	1
MMSZ4682	CH	2.565	2.7	2.835	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
<b>MMSZ4685</b>	<b>CM</b>	<b>3.42</b>	<b>3.6</b>	<b>3.78</b>	<b>50</b>	<b>7.5</b>	<b>2</b>
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
<b>MMSZ4690</b>	<b>CV</b>	<b>5.32</b>	<b>5.6</b>	<b>5.88</b>	<b>50</b>	<b>10</b>	<b>4</b>
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
MMSZ4696	DD	8.65	9.1	9.56	50	1	6.9
MMSZ4697	DE	9.50	10	10.50	50	1	7.6
MMSZ4698	DF	10.45	11	11.55	50	0.05	8.4
MMSZ4699	DH	11.40	12	12.60	50	0.05	9.1
MMSZ4700	DJ	12.35	13	13.65	50	0.05	9.8
MMSZ4701	DK	13.30	14	14.70	50	0.05	10.6
MMSZ4702	DM	14.25	15	15.75	50	0.05	11.4
MMSZ4703*	DN	15.20	16	16.80	50	0.05	12.1
MMSZ4704	DP	16.15	17	17.85	50	0.05	12.9
MMSZ4705	DT	17.10	18	18.90	50	0.05	13.6
MMSZ4706	DU	18.05	19	19.95	50	0.05	14.4
MMSZ4707	DV	19.00	20	21.00	50	0.01	15.2
MMSZ4708	DA	20.90	22	23.10	50	0.01	16.7
MMSZ4709	DX	22.80	24	25.20	50	0.01	18.2
MMSZ4710	DY	23.75	25	26.25	50	0.01	19.0
MMSZ4711*	EA	25.65	27	28.35	50	0.01	20.4
MMSZ4712	EC	26.60	28	29.40	50	0.01	21.2
MMSZ4713	ED	28.50	30	31.50	50	0.01	22.8
MMSZ4714	EE	31.35	33	34.65	50	0.01	25.0
MMSZ4715	EF	34.20	36	37.80	50	0.01	27.3
MMSZ4716	EH	37.05	39	40.95	50	0.01	29.6
MMSZ4717	EJ	40.85	43	45.15	50	0.01	32.6

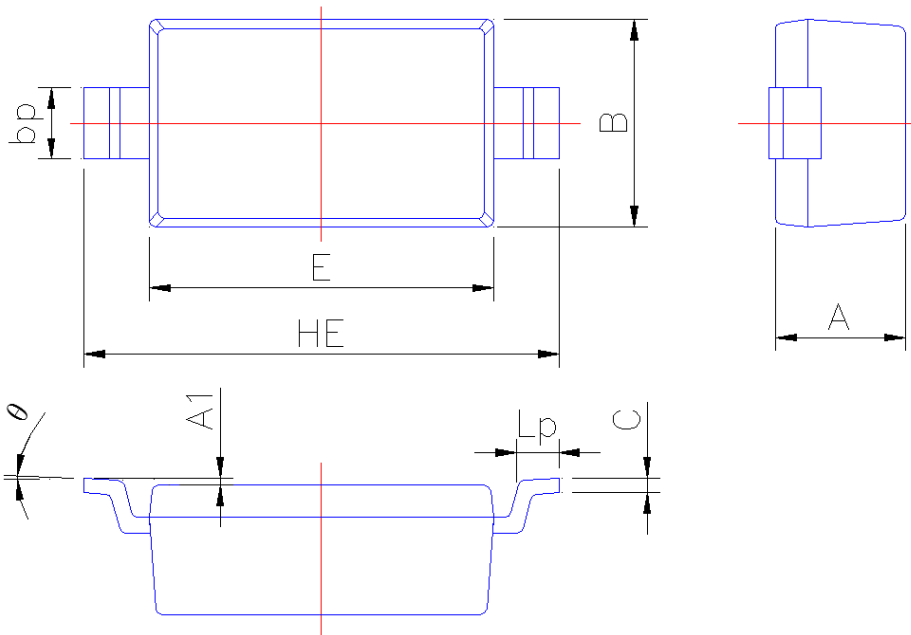
1. Nominal Zener voltage is measured with the device junction in thermal equilibrium at  $T_L = 30^\circ\text{C} \pm 1^\circ\text{C}$



## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123



Symbol	Dimension in Millimeters	
	Min	Max
A	0.95	1.15
A1	0.01	0.100
B	1.55	1.65
bp	0.50	0.70
C	0.09	0.150
E	2.60	2.70
HE	3.45	3.85
Lp	0.20	0.45
θ	0°	5°