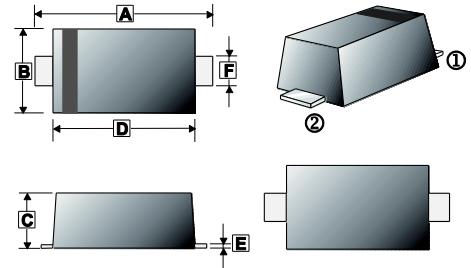


RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Wide Zener Voltage Range Selection, 2.4V~75V
- V_Z Tolerance Selection of $\pm 5\%$ (C-Series)
- Flat Lead SOD-123LH Plastic Package
- Surface Device Type Mounting
- Green EMC
- Matte Tin(Sn) Lead Finish
- Band Indicates Cathode

SOD-123LH



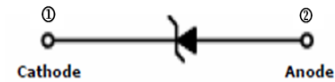
PACKAGE INFORMATION

Package	MPQ	Leader Size
SOD-123LH	3K	7 inch

REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	3.30	3.70	D	2.50	2.70
B	1.50	1.70	E	0.05	0.20
C	0.80	1.00	F	0.50	0.70

ORDER INFORMATION

Part Number	Type
MMSZxxxCW-C Series	Lead (Pb)-free and Halogen-free



ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Rating	Unit
Power Dissipation	P_D	500	mW
Operating and Storage Temperature Range	T_J, T_{STG}	-65~150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise specified, $V_F=900\text{mV}$ Maximum @ $I_F=10\text{mA}$)

Type Number	Marking	Zener Voltage Range				Maximum Zener Impedance			Maximum Reverse Leakage Current	
		$V_Z @ I_{ZT}$			I_{ZT}	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	I_{ZK}	$I_R @ V_R$	
		Min. (V)	Nom. (V)	Max. (V)	mA	Ω		mA	μA	V
MMSZ2V4CW-C	2V4Z	2.28	2.4	2.52	5	100	564	1	45	1
MMSZ2V7CW-C	2V7Z	2.57	2.7	2.84	5	100	564	1	18	1
MMSZ3V0CW-C	3V0Z	2.85	3	3.15	5	100	564	1	9	1
MMSZ3V3CW-C	3V3Z	3.14	3.3	3.47	5	95	564	1	4.5	1
MMSZ3V6CW-C	3V6Z	3.42	3.6	3.78	5	90	564	1	4.5	1
MMSZ3V9CW-C	3V9Z	3.71	3.9	4.1	5	90	564	1	2.7	1
MMSZ4V3CW-C	4V3Z	4.09	4.3	4.52	5	90	564	1	2.7	1
MMSZ4V7CW-C	4V7Z	4.47	4.7	4.94	5	80	470	1	2.7	2
MMSZ5V1CW-C	5V1Z	4.85	5.1	5.36	5	60	451	1	1.8	2
MMSZ5V6CW-C	5V6Z	5.32	5.6	5.88	5	40	376	1	0.9	2
MMSZ6V2CW-C	6V2Z	5.89	6.2	6.51	5	10	141	1	2.7	4
MMSZ6V8CW-C	6V8Z	6.46	6.8	7.14	5	15	75	1	1.8	4
MMSZ7V5CW-C	7V5Z	7.11	7.5	7.86	5	15	75	1	0.9	5
MMSZ8V2CW-C	8V2Z	7.79	8.2	8.61	5	15	75	1	0.63	5
MMSZ9V1CW-C	9V1Z	8.65	9.1	9.56	5	15	94	1	0.45	6
MMSZ10VCW-C	10VZ	9.5	10	10.5	5	20	141	1	0.18	7
MMSZ11VCW-C	11VZ	10.45	11	11.55	5	20	141	1	0.09	8
MMSZ12VCW-C	12VZ	11.4	12	12.6	5	25	141	1	0.09	8
MMSZ13VCW-C	13VZ	12.35	13	13.65	5	30	160	1	0.09	8
MMSZ15VCW-C	15VZ	14.25	15	15.75	5	30	188	1	0.045	10.5
MMSZ16VCW-C	16VZ	15.2	16	16.8	5	40	188	1	0.045	11.2
MMSZ18VCW-C	18VZ	17.1	18	18.9	5	45	212	1	0.045	12.6
MMSZ20VCW-C	20VZ	19	20	21	5	55	212	1	0.045	14
MMSZ22VCW-C	22VZ	20.9	22	23.1	5	55	235	1	0.045	15.4
MMSZ24VCW-C	24VZ	22.8	24	25.2	5	70	235	1	0.045	16.8
MMSZ27VCW-C	27VZ	25.65	27	28.35	2	80	282	0.5	0.045	18.9
MMSZ30VCW-C	30VZ	28.5	30	31.5	2	80	282	0.5	0.045	21
MMSZ33VCW-C	33VZ	31.35	33	34.65	2	80	306	0.5	0.045	23
MMSZ36VCW-C	36VZ	34.2	36	37.8	2	90	329	0.5	0.045	25.2
MMSZ39VCW-C	39VZ	37.05	39	40.95	2	130	329	0.5	0.045	27.3

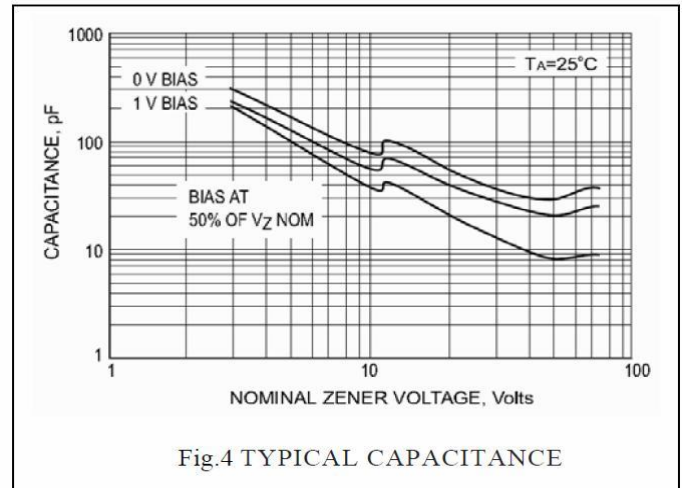
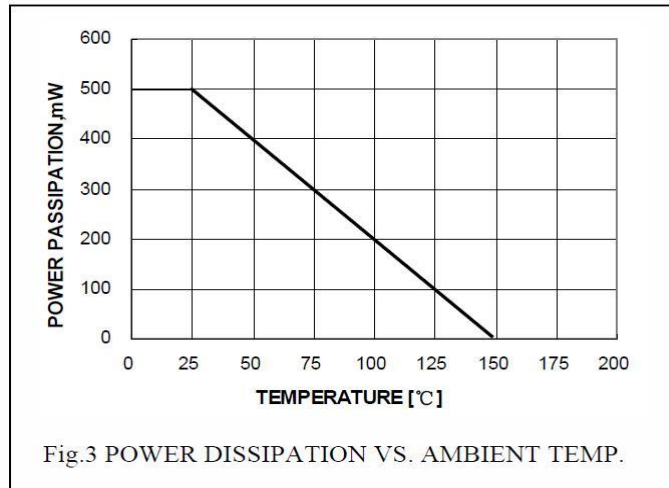
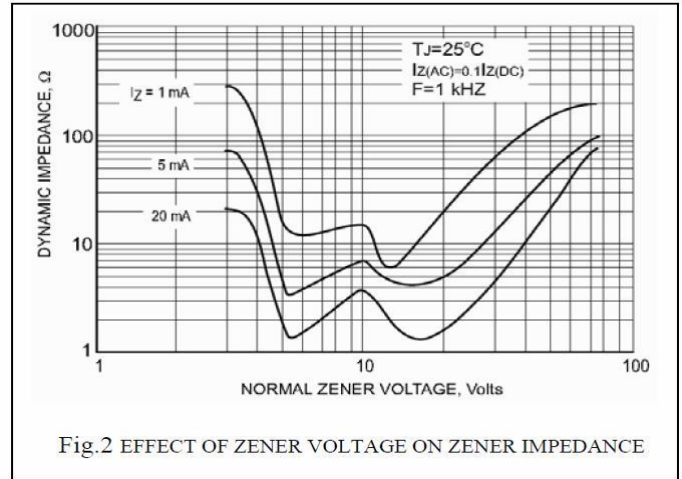
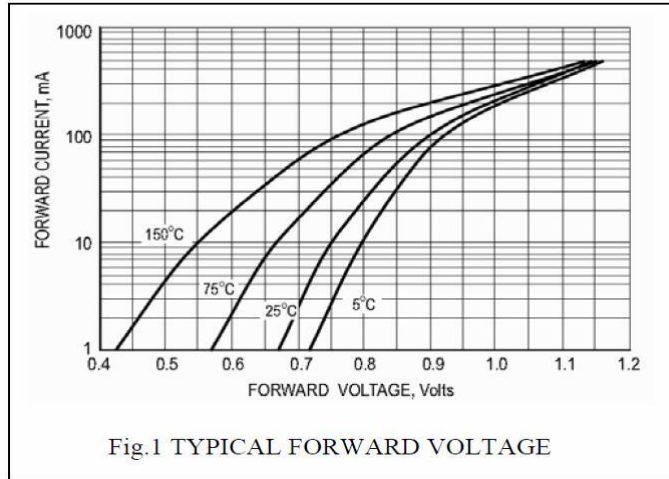
ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise specified, $V_F=900\text{mV}$ Maximum @ $I_F=10\text{mA}$)

Type Number	Marking	Zener Voltage Range				Maximum Zener Impedance			Maximum Reverse Leakage Current	
		$V_Z @ I_{ZT}$			I_{ZT}	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	I_{ZK}	$I_R @ V_R$	
		Min. (V)	Nom. (V)	Max. (V)	mA	Ω	mA	μA	V	
MMSZ43VCW-C	43VZ	40.85	43	45.15	2	150	353	0.5	0.045	30.1
MMSZ47VCW-C	47VZ	44.65	47	49.35	2	170	353	0.5	0.045	33
MMSZ51VCW-C	51VZ	48.45	51	53.55	2	180	376	0.5	0.045	35.7
MMSZ56VCW-C	56VZ	53.2	56	58.8	2	200	400	0.5	0.045	39.2
MMSZ62VCW-C	62VZ	58.9	62	65.1	2	215	423	0.5	0.045	43.4
MMSZ68VCW-C	68VZ	64.6	68	71.4	2	240	447	0.5	0.045	47.6
MMSZ75VCW-C	75VZ	71.25	75	78.75	2	255	470	0.5	0.045	52.5

Notes:

1. The zener voltage (V_Z) is tested under pulse condition of 10mS.
2. The device numbers listed have a standard tolerance on the nominal zener voltage of $\pm 5\%$.
3. For detailed information on price, availability and delivery of nominal zener voltages between the voltages shown and tighter voltage tolerances, contact your nearest Tak Cheong Electronics representative.
4. The zener impedance is derived from the 60-cycle ac voltage, which results when an ac current having an RMS value equal to 10% of the dc zener current (I_{ZT} or I_{ZK}) is superimposed to I_{ZT} or I_{ZK} .

CHARACTERISTIC CURVES



CHARACTERISTIC CURVES

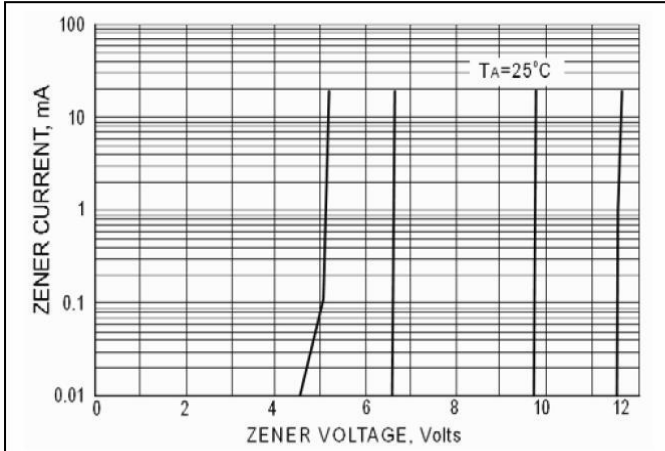


Fig.5 ZENER BREAKDOWN CHARACTERISTICS

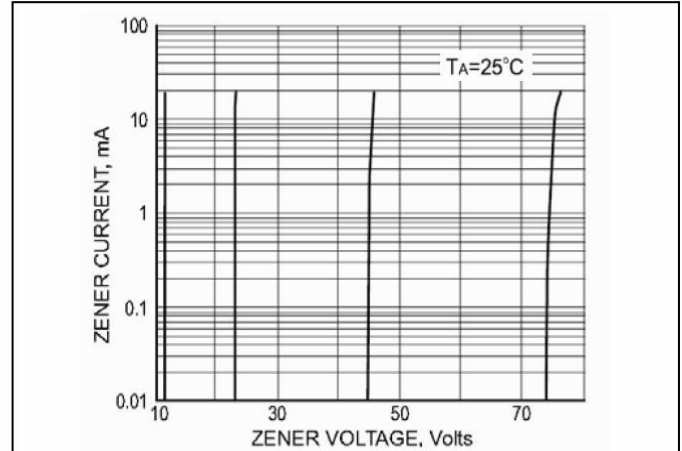


Fig.6 ZENER BREAKDOWN CHARACTERISTICS

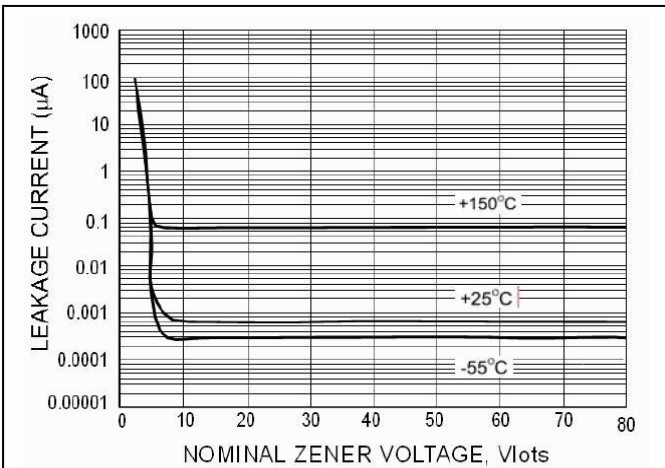


Fig.7 TYPICAL LEAKGE CURRENT

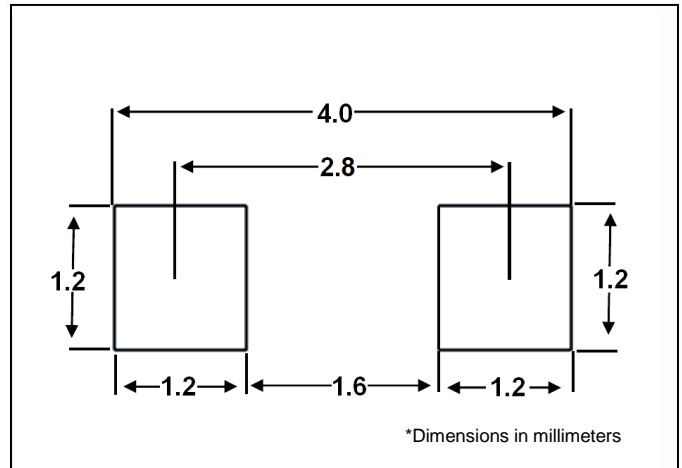


Fig.8 MOUNTING PAD LAYOUT