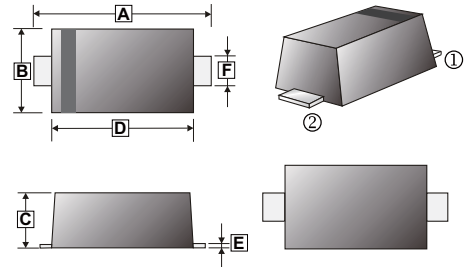


RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Wide Zener Voltage Range Selection, 2.4V to 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



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

PACKAGE INFORMATION

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



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

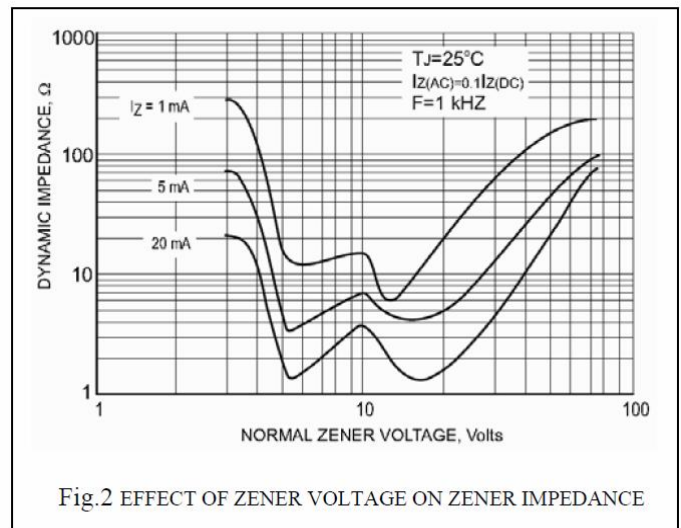
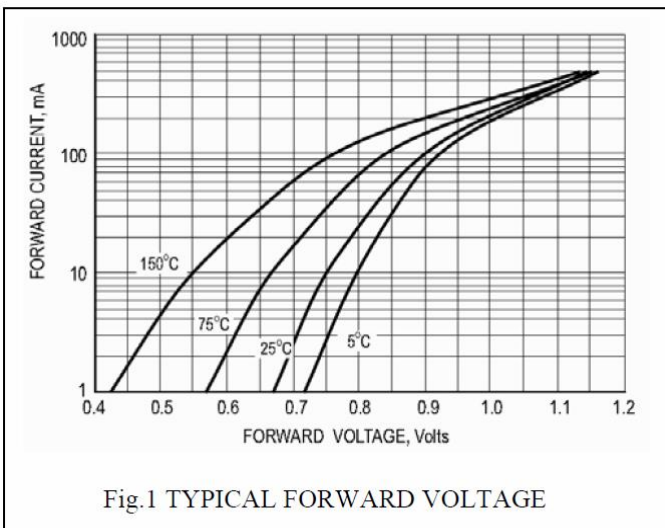
ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise specified, $V_F=900\text{mV}$ Maximum @ $I_F=10\text{mA}$)

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	Ω	mA	μA	V
MMSZ43VCW	43VZ	40.85	43	45.15	2	150	353	0.5	0.045	30.1
MMSZ47VCW	47VZ	44.65	47	49.35	2	170	353	0.5	0.045	33
MMSZ51VCW	51VZ	48.45	51	53.55	2	180	376	0.5	0.045	35.7
MMSZ56VCW	56VZ	53.2	56	58.8	2	200	400	0.5	0.045	39.2
MMSZ62VCW	62VZ	58.9	62	65.1	2	215	423	0.5	0.045	43.4
MMSZ68VCW	68VZ	64.6	68	71.4	2	240	447	0.5	0.045	47.6
MMSZ75VCW	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

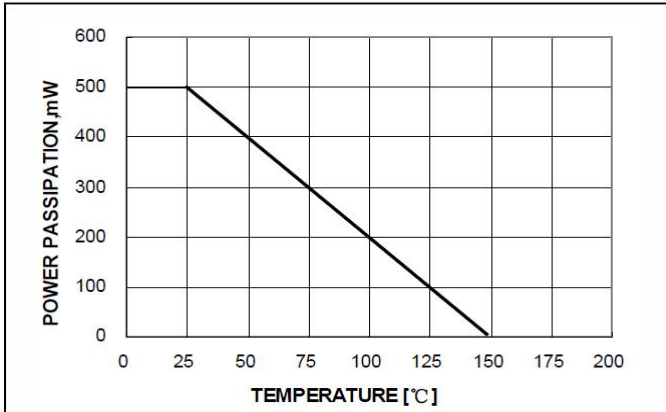


Fig.3 POWER DISSIPATION VS. AMBIENT TEMP.

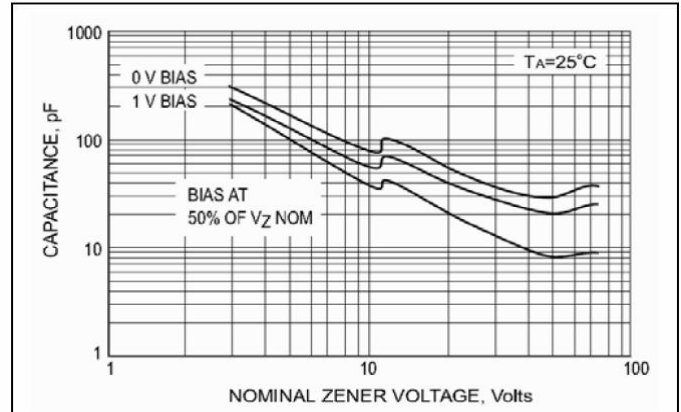


Fig.4 TYPICAL CAPACITANCE

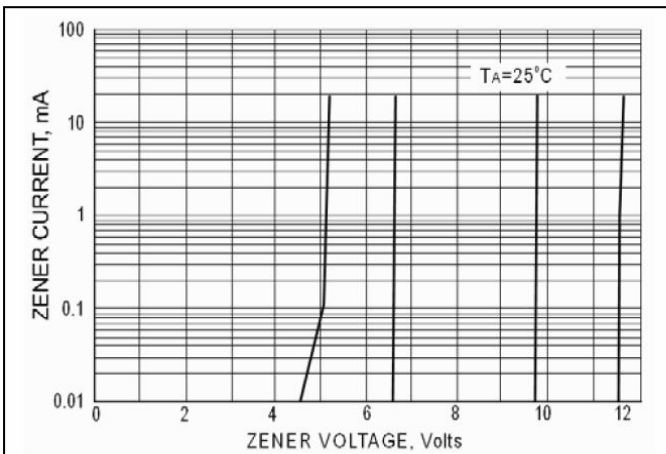


Fig.5 ZENER BREAKDOWN CHARACTERISTICS

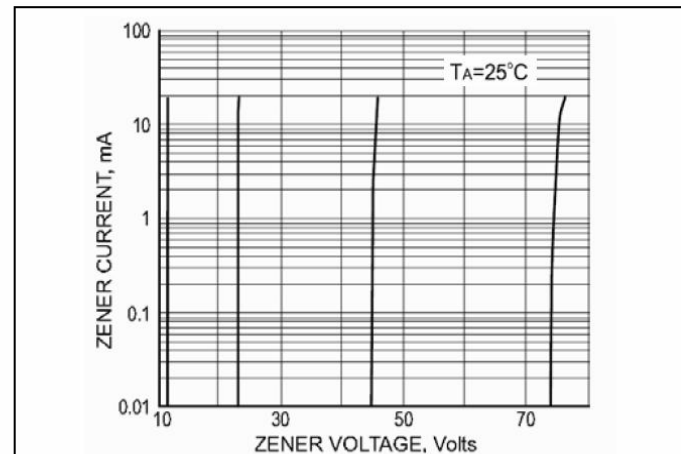


Fig.6 ZENER BREAKDOWN CHARACTERISTICS

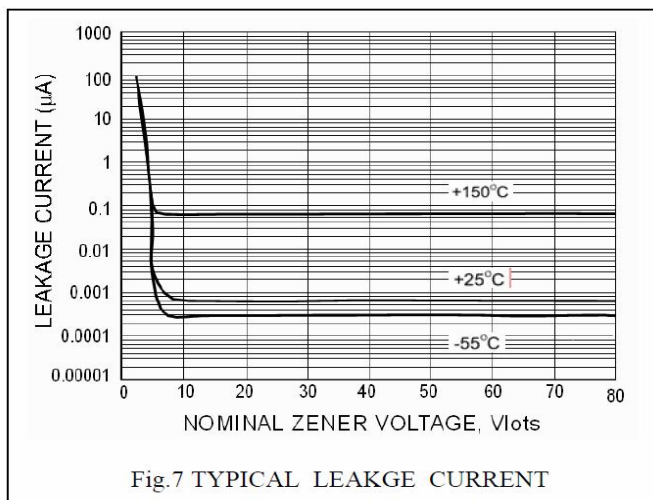


Fig.7 TYPICAL LEAKGE CURRENT