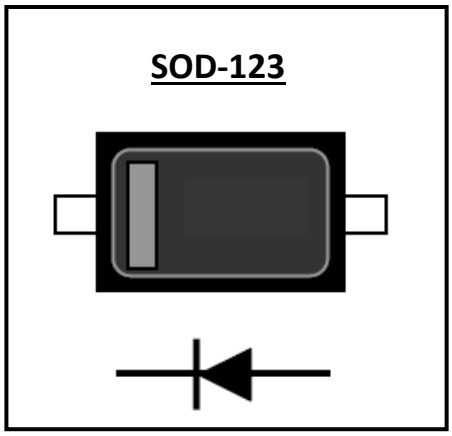
Zener Diode

■Features

●PD 500mW

●Vz 2.4V-75V

■External and internal structure



■ Applications

●Stabilizing Voltage

■ Marking

●see table3

■Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Conditions	Limit
Power Dissipation	PD	mW		500
Storage Temperature Range	TSTG	°C		-65 to +150
Operating Temperature Range	TOPR	°C		-65 to +150

■Electrical Characteristics（T_a=25℃ Unless otherwise specified）

Item	Symbol	Unit	Conditions	Min	Max
Forward Voltage	VF	V	IF=10mA		0.9

■Electrical Characteristics (T_A=25℃ unless otherwise noted)

Part Number	Marking	V_Z at I_{ZT} V			I_{ZT} mA	Z_{ZT} at I_{ZT} Ω	I_{ZK} mA	Z_{ZK} at I_{ZK} Ω	IR @ V_R uA	V_R V
		Min	Nom	Max		Max		Max		
MMSZ5221B	2V4Z	2.28	2.4	2.52	5	100	1	564	45	1
MMSZ5223B	2V7Z	2.57	2.7	2.84	5	100	1	564	18	1
MMSZ5225B	3V0Z	2.85	3	3.15	5	100	1	564	9	1
MMSZ5226B	3V3Z	3.14	3.3	3.47	5	95	1	564	4.5	1
MMSZ5227B	3V6Z	3.42	3.6	3.78	5	90	1	564	4.5	1
MMSZ5228B	3V9Z	3.71	3.9	4.1	5	90	1	564	2.7	1
MMSZ5229B	4V3Z	4.09	4.3	4.52	5	90	1	564	2.7	1
MMSZ5230B	4V7Z	4.47	4.7	4.94	5	80	1	470	2.7	2
MMSZ5231B	5V1Z	4.85	5.1	5.36	5	60	1	451	1.8	2
MMSZ5232B	5V6Z	5.32	5.6	5.88	5	40	1	376	0.9	2
MMSZ5234B	6V2Z	5.89	6.2	6.51	5	10	1	141	2.7	4
MMSZ5235B	6V8Z	6.46	6.8	7.14	5	15	1	75	1.8	4
MMSZ5236B	7V5Z	7.11	7.5	7.86	5	15	1	75	0.9	5
MMSZ5237B	8V2Z	7.79	8.2	8.61	5	15	1	75	0.63	5
MMSZ5239B	9V1Z	8.65	9.1	9.56	5	15	1	94	0.45	6
MMSZ5240B	10VZ	9.5	10	10.5	5	20	1	141	0.18	7
MMSZ5241B	11VZ	10.45	11	11.55	5	20	1	141	0.09	8
MMSZ5242B	12VZ	11.4	12	12.6	5	25	1	141	0.09	8
MMSZ5243B	13VZ	12.35	13	13.65	5	30	1	160	0.09	8
MMSZ5245B	15VZ	14.25	15	15.75	5	30	1	188	0.045	10.5
MMSZ5246B	16VZ	15.2	16	16.8	5	40	1	188	0.045	11.2
MMSZ5248B	18VZ	17.1	18	18.9	5	45	1	212	0.045	12.6
MMSZ5250B	20VZ	19	20	21	5	55	1	212	0.045	14
MMSZ5251B	22VZ	20.9	22	23.1	5	55	1	235	0.045	15.4
MMSZ5252B	24VZ	22.8	24	25.2	5	70	1	235	0.045	16.8
MMSZ5254B	27VZ	25.65	27	28.35	2	80	0.5	282	0.045	18.9
MMSZ5256B	30VZ	28.5	30	31.5	2	80	0.5	282	0.045	21
MMSZ5257B	33VZ	31.35	33	34.65	2	80	0.5	306	0.045	23
MMSZ5258B	36VZ	34.2	36	37.8	2	90	0.5	329	0.045	25.2
MMSZ5259B	39VZ	37.05	39	40.95	2	130	0.5	329	0.045	27.3
MMSZ5260B	43VZ	40.85	43	45.15	2	150	0.5	353	0.045	30.1
MMSZ5261B	47VZ	44.65	47	49.35	2	170	0.5	353	0.045	33
MMSZ5262B	51VZ	48.45	51	53.55	2	180	0.5	376	0.045	35.7
MMSZ5263B	56VZ	53.2	56	58.8	2	200	0.5	400	0.045	39.2
MMSZ5265B	62VZ	58.9	62	65.1	2	215	0.5	423	0.045	43.4
MMSZ5266B	68VZ	64.6	68	71.4	2	240	0.5	447	0.045	47.6
MMSZ5267B	75VZ	71.25	75	78.75	2	255	0.5	470	0.045	52.5

Notes:

1. The Zener Voltage (VZ) is tested under pulse condition of 10mS.
2. The device numbers listed have a standard tolerance on the nominal zener voltage of ±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 (IZT or IZK) is superimposed to IZT or IZK.

■Characteristics(Typical)

Fig.1 Typical Forward Voltage

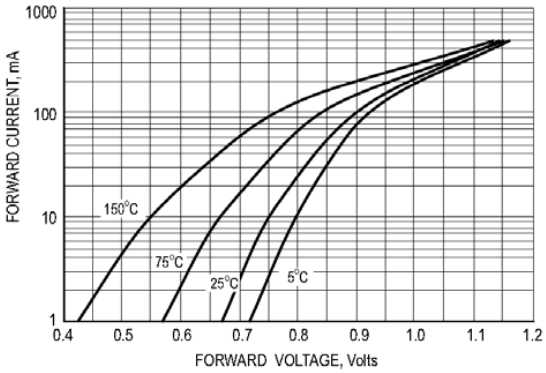


Fig.2 Effect of Zener Voltage on Zener Impedance

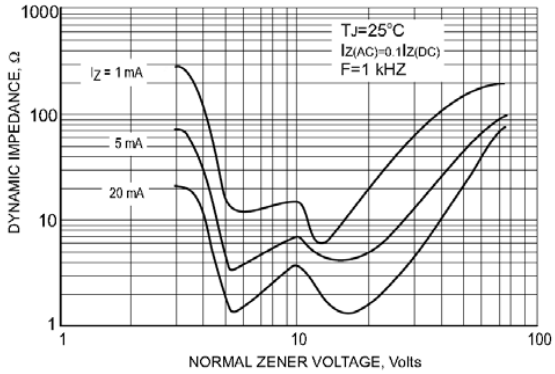


Fig.3 Power Dissipation VS Ambient Temp

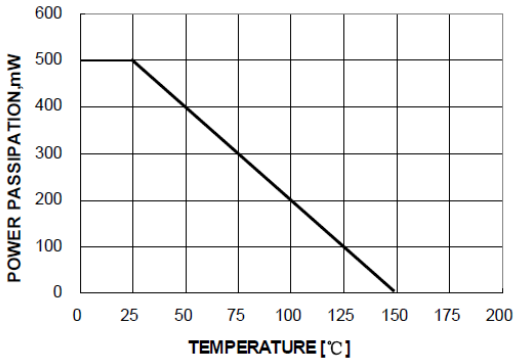


Fig.4 Typical Capacitance

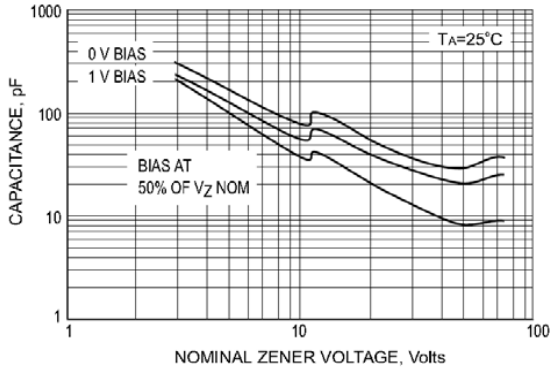


Fig.5 Zener Breakdown Characteristics

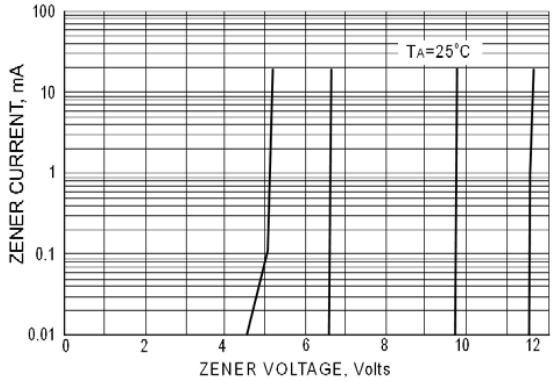


Fig.6 Zener Breakdown Characteristics

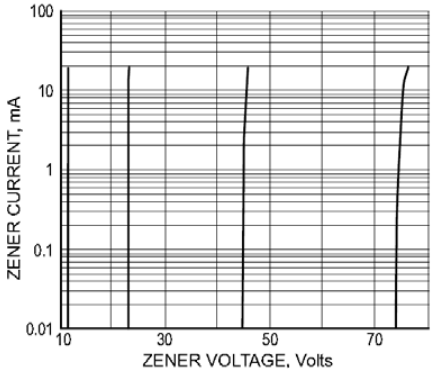
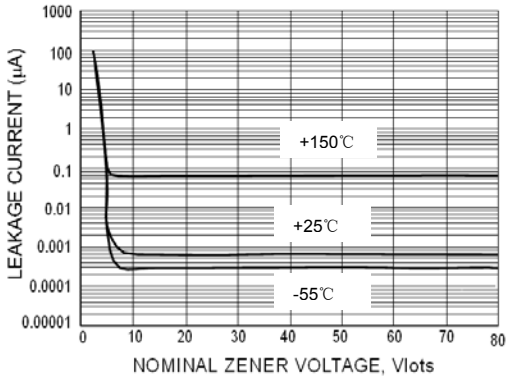
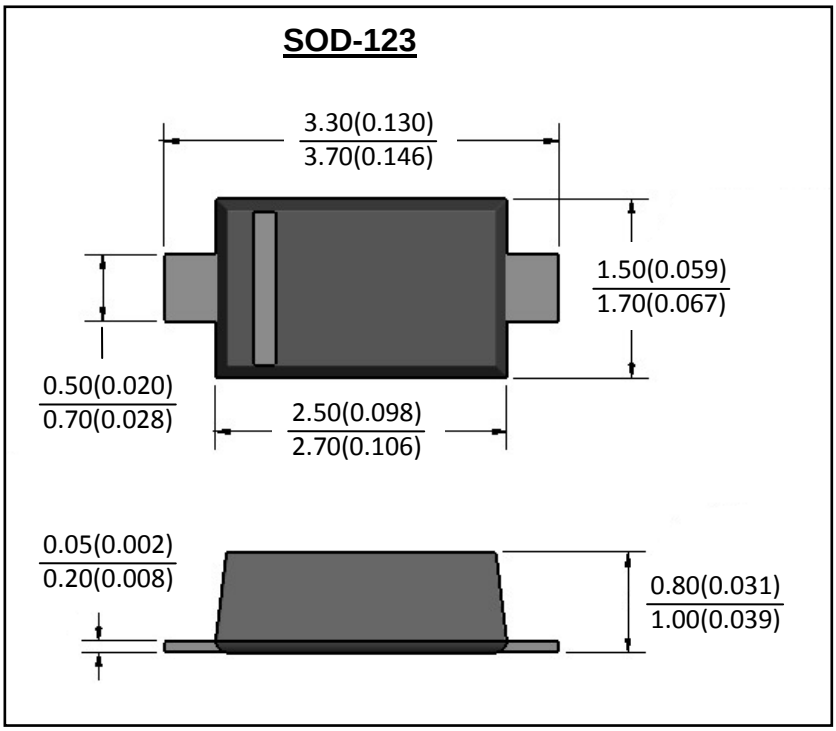


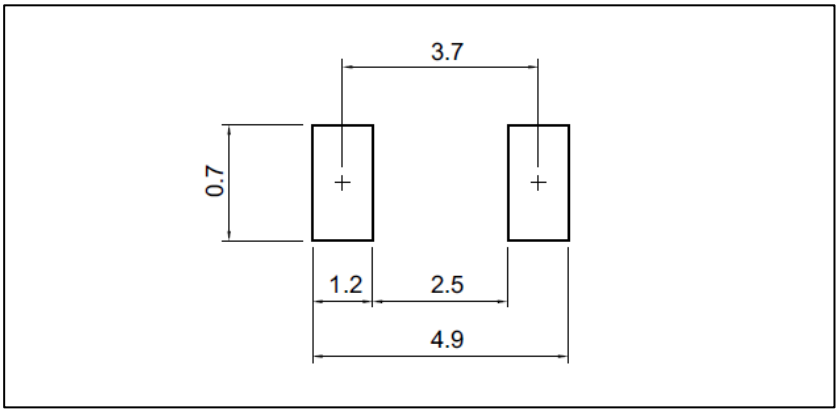
Fig.7 Typical Leakge Current



■ Plastic surface mounted package



■ Soldering Footprint



■ Packing Information

Device	Package	Shipping
MMSZ5221B THRU MMSZ5267B	SOD-123	3000/Tape&Reel