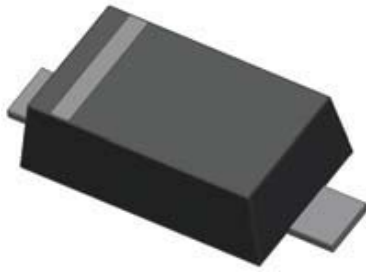


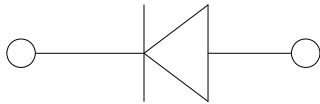


Zener Diodes



Features

- High reliability
- Very sharp reverse characteristic
- Low reverse current level



Mechanical Data

- **Package:** SOD123F
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

■ Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	VALUE
Forward Voltage at $I_F = 10\text{mA}$	VF	V	0.9
Power Dissipation at Ta=75°C	PD	mW	500
Storage Temperature Range	Tstg	°C	-65~+150
Maximum Junction Temperature	Tj	°C	-65~+150

■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MMSZ5221BF THRU MMSZ5267BF	F1	Approximate 0.0084	3000	30000	180000	7" reel



MMSZ5221BF THRU MMSZ5267BF

■Electrical Characteristics (Ta=25°C Unless otherwise specified)

Part Number	Marking	V _Z at I _{ZT}			I _{ZT} mA	Z _{ZT} at I _{ZT}	I _{ZK} mA	Z _{ZK} at I _{ZK}	I _R @ V _R uA	V _R V
		V				Ω		Ω		
		Min	Nom	Max		Max		Max		
MMSZ5221BF	2V4Z	2.28	2.4	2.52	5	100	1	564	45	1
MMSZ5223BF	2V7Z	2.57	2.7	2.84	5	100	1	564	18	1
MMSZ5225BF	3V0Z	2.85	3	3.15	5	100	1	564	9	1
MMSZ5226BF	3V3Z	3.14	3.3	3.47	5	95	1	564	4.5	1
MMSZ5227BF	3V6Z	3.42	3.6	3.78	5	90	1	564	4.5	1
MMSZ5228BF	3V9Z	3.71	3.9	4.1	5	90	1	564	2.7	1
MMSZ5229BF	4V3Z	4.09	4.3	4.52	5	90	1	564	2.7	1
MMSZ5230BF	4V7Z	4.47	4.7	4.94	5	80	1	470	2.7	2
MMSZ5231BF	5V1Z	4.85	5.1	5.36	5	60	1	451	1.8	2
MMSZ5232BF	5V6Z	5.32	5.6	5.88	5	40	1	376	0.9	2
MMSZ5234BF	6V2Z	5.89	6.2	6.51	5	10	1	141	2.7	4
MMSZ5235BF	6V8Z	6.46	6.8	7.14	5	15	1	75	1.8	4
MMSZ5236BF	7V5Z	7.11	7.5	7.86	5	15	1	75	0.9	5
MMSZ5237BF	8V2Z	7.79	8.2	8.61	5	15	1	75	0.63	5
MMSZ5239BF	9V1Z	8.65	9.1	9.56	5	15	1	94	0.45	6
MMSZ5240BF	10VZ	9.5	10	10.5	5	20	1	141	0.18	7
MMSZ5241BF	11VZ	10.45	11	11.55	5	20	1	141	0.09	8
MMSZ5242BF	12VZ	11.4	12	12.6	5	25	1	141	0.09	8
MMSZ5243BF	13VZ	12.35	13	13.65	5	30	1	160	0.09	8
MMSZ5245BF	15VZ	14.25	15	15.75	5	30	1	188	0.045	10.5
MMSZ5246BF	16VZ	15.2	16	16.8	5	40	1	188	0.045	11.2
MMSZ5248BF	18VZ	17.1	18	18.9	5	45	1	212	0.045	12.6
MMSZ5250BF	20VZ	19	20	21	5	55	1	212	0.045	14
MMSZ5251BF	22VZ	20.9	22	23.1	5	55	1	235	0.045	15.4
MMSZ5252BF	24VZ	22.8	24	25.2	5	70	1	235	0.045	16.8
MMSZ5254BF	27VZ	25.65	27	28.35	2	80	0.5	282	0.045	18.9
MMSZ5256BF	30VZ	28.5	30	31.5	2	80	0.5	282	0.045	21
MMSZ5257BF	33VZ	31.35	33	34.65	2	80	0.5	306	0.045	23
MMSZ5258BF	36VZ	34.2	36	37.8	2	90	0.5	329	0.045	25.2
MMSZ5259BF	39VZ	37.05	39	40.95	2	130	0.5	329	0.045	27.3
MMSZ5260BF	43VZ	40.85	43	45.15	2	150	0.5	353	0.045	30.1
MMSZ5261BF	47VZ	44.65	47	49.35	2	170	0.5	353	0.045	33
MMSZ5262BF	51VZ	48.45	51	53.55	2	180	0.5	376	0.045	35.7
MMSZ5263BF	56VZ	53.2	56	58.8	2	200	0.5	400	0.045	39.2
MMSZ5265BF	62VZ	58.9	62	65.1	2	215	0.5	423	0.045	43.4
MMSZ5266BF	68VZ	64.6	68	71.4	2	240	0.5	447	0.045	47.6
MMSZ5267BF	75VZ	71.25	75	78.75	2	255	0.5	470	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 ±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 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}.



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■ Characteristics (Typical)

Fig.1 Typical Forward Voltage

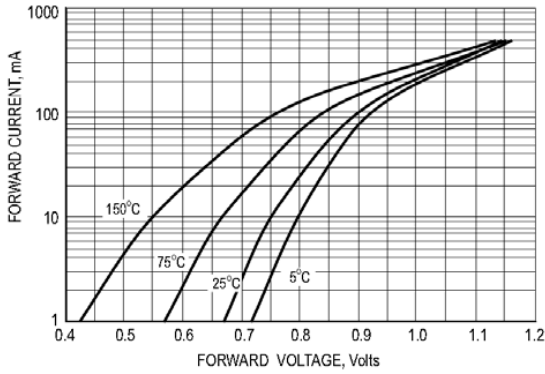


Fig.2 Effect of Zener Voltage on Zener Impedance

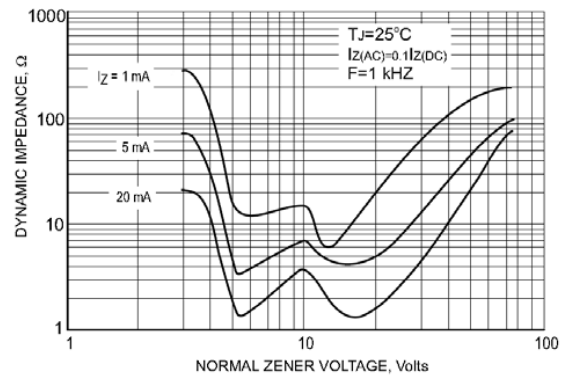


Fig.3 Power Dissipation VS Ambient Temp

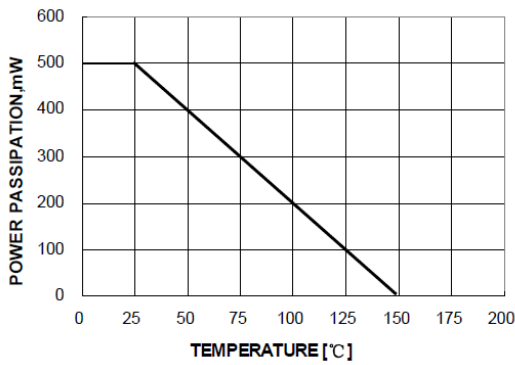


Fig.4 Typical Capacitance

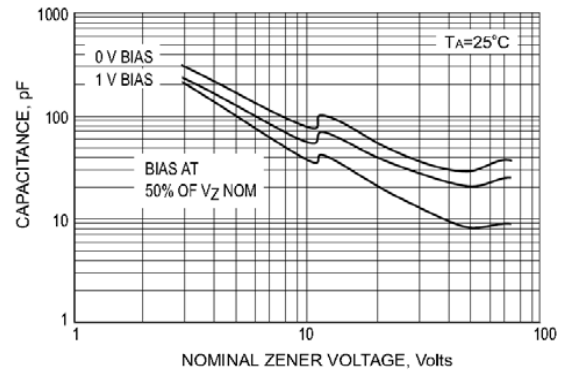


Fig.5 Zener Breakdown Characteristics

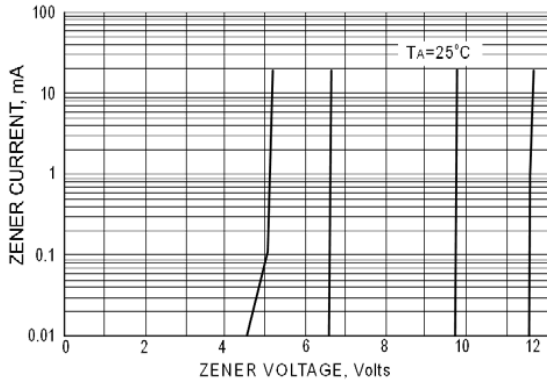


Fig.6 Zener Breakdown Characteristics

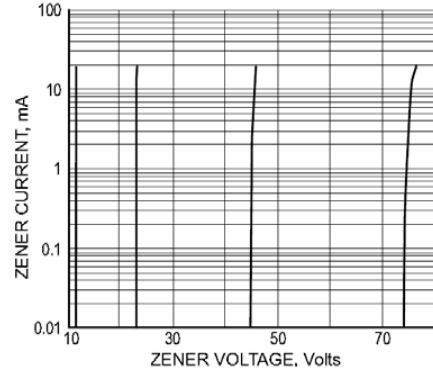
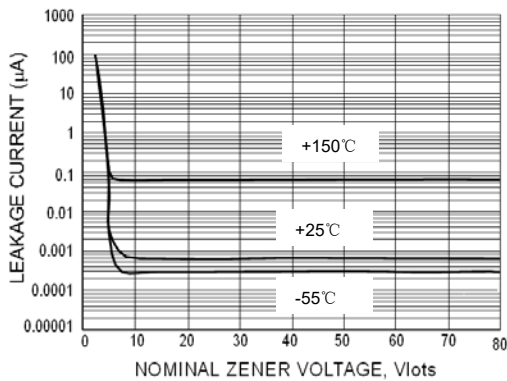


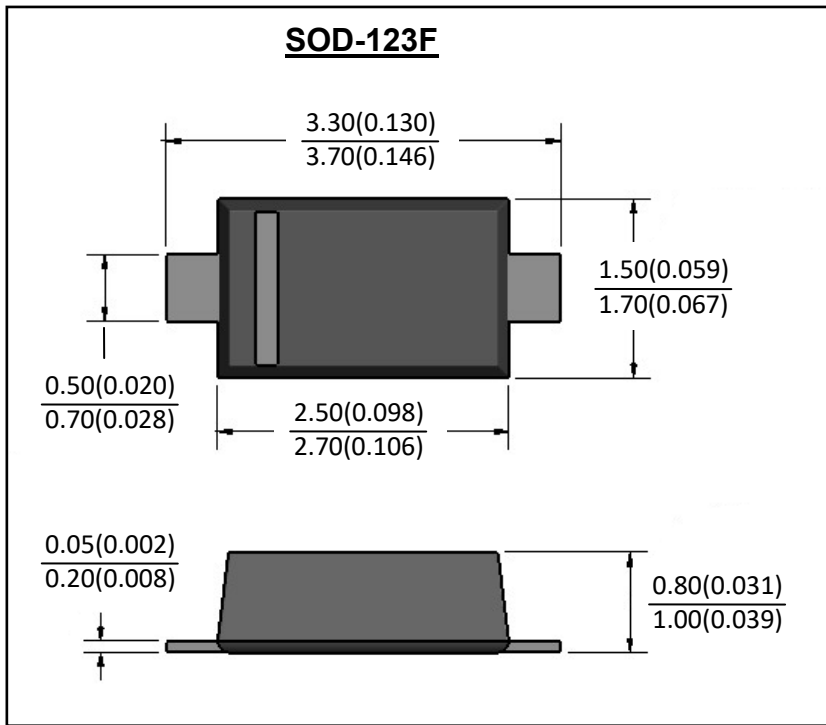
Fig.7 Typical Leakage Current



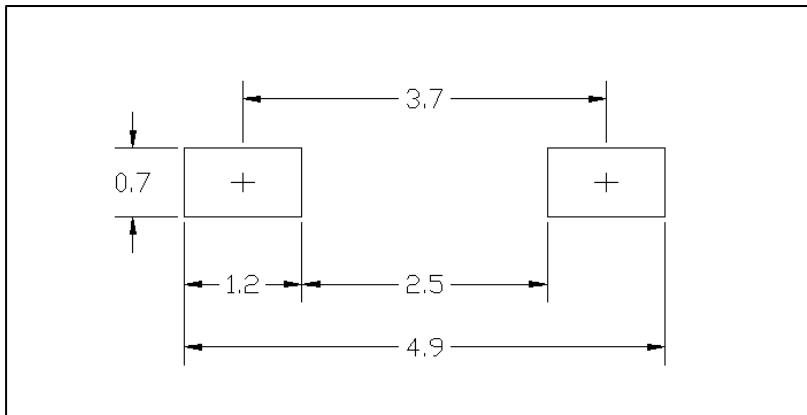


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■ Outline Dimensions



■ Soldering Footprint





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