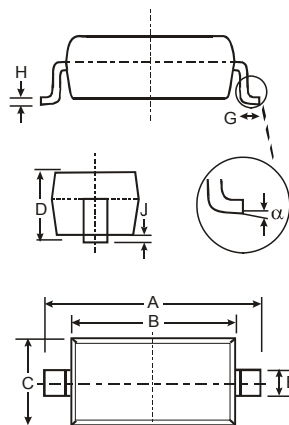


Features

- Total power dissipation: Max. 500 mW.
- Low Zener Impedance.
- High Stability and High Reliability.



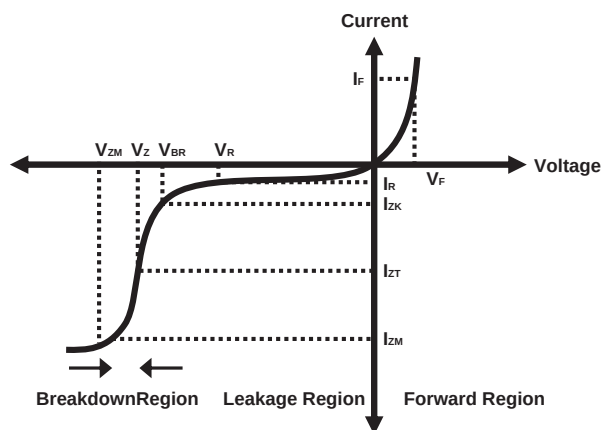
SOD-123		
Dim	Min	Max
A	3.55	3.85
B	2.55	2.85
C	1.40	1.70
D	—	1.35
E	0.45	0.65
	0.55 Typical	
G	0.25	—
H	0.11 Typical	
J	—	0.10
α	0°	8°
All Dimensions in mm		

Maximum Ratings @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Value	Unit
Power Dissipation	P_{tot}	500	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{Stg}	- 65 to + 150	$^\circ\text{C}$
Thermal Resistance Junction to Ambient Air	$R_{\theta\text{JA}}$	400	$^\circ\text{C/W}$
Forward Voltage at $I_F = 10 \text{ mA}$	V_F	0.9	V

- 1) Device mounted on ceramic PCB: 7.6mm x 9.4mm x 0.87mm with pad areas 25mm²
- 2) Short duration test pulse used to minimize self-heating effect
- 3) f=1KHz

Zener I vs. V Characteristics



- V_{BR} : Voltage at I_{ZK}
- I_{ZK} : Test current for voltage V_{BR}
- Z_{ZK} : Dynamic impedance at I_{ZK}
- I_{ZT} : Test current for voltage V_Z
- V_Z : Voltage at current I_{ZT}
- Z_{ZT} : Dynamic impedance at I_{ZT}
- I_{ZM} : Maximum steady state current
- V_{ZM} : Voltage at I_{ZM}

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Device	Marking	Zener Voltage Range				Maximum Zener Impedance			Maximum Reverse Current		Typical Temperature coefficient @ IZTC=mV/°C		Test Current IZTC
		Vz@Izt			Izt	Zzt @Izt	Zzk @Izk	Izk	IR	VR	Min	Max	
		Nom(V)	Min(V)	Max(V)	mA	Ω		mA	uA	V			
MM1Z 2C4	WX	2.4	2.2	2.6	5	100	600	1.0	50	1.0	-3.5	0	5
MM1Z 2C7	W1	2.7	2.5	2.9	5	100	600	1.0	20	1.0	-3.5	0	5
MM1Z 3C0	W2	3.0	2.8	3.2	5	95	600	1.0	10	1.0	-3.5	0	5
MM1Z 3C3	W3	3.3	3.1	3.5	5	95	600	1.0	5	1.0	-3.5	0	5
MM1Z 3C6	W4	3.6	3.4	3.8	5	90	600	1.0	5	1.0	-3.5	0	5
MM1Z 3C9	W5	3.9	3.7	4.1	5	90	600	1.0	3	1.0	-3.5	0	5
MM1Z 4C3	W6	4.3	4.0	4.6	5	90	600	1.0	3	1.0	-3.5	0	5
MM1Z 4C7	W7	4.7	4.4	5.0	5	80	500	1.0	3	2.0	-3.5	0.2	5
MM1Z 5C1	W8	5.1	4.8	5.4	5	60	480	1.0	2	2.0	-2.7	1.2	5
MM1Z 5C6	W9	5.6	5.2	6.0	5	40	400	1.0	1	2.0	-2.0	2.5	5
MM1Z 6C2	WA	6.2	5.8	6.6	5	10	150	1.0	3	4.0	0.4	3.7	5
MM1Z 6C8	WB	6.8	6.4	7.2	5	15	80	1.0	2	4.0	1.2	4.5	5
MM1Z 7C5	WC	7.5	7.0	7.9	5	15	80	1.0	1	5.0	2.5	5.3	5
MM1Z 8C2	WD	8.2	7.7	8.7	5	15	80	1.0	0.7	5.0	3.2	6.2	5
MM1Z 9C1	WE	9.1	8.5	9.6	5	15	100	1.0	0.5	6.0	3.8	7.0	5
MM1Z C10	WF	10	9.4	10.6	5	20	150	1.0	0.2	7.0	4.5	8.0	5
MM1Z C11	WG	11	10.4	11.6	5	20	150	1.0	0.1	8.0	5.4	9.0	5
MM1Z C12	WH	12	11.4	12.7	5	25	150	1.0	0.1	8.0	6.0	10.0	5
MM1Z C13	WI	13	12.4	14.1	5	30	170	1.0	0.1	8.0	7.0	11.0	5
MM1Z C15	WJ	15	13.8	15.6	5	30	200	1.0	0.1	10.5	9.2	13.0	5
MM1Z C16	WK	16	15.3	17.1	5	40	200	1.0	0.1	11.2	10.4	14.0	5
MM1Z C18	WL	18	16.8	19.1	5	45	225	1.0	0.1	12.6	12.4	16.0	5
MM1Z C20	WM	20	18.8	21.2	5	55	225	1.0	0.1	14.0	14.4	18.0	5
MM1Z C22	WN	22	20.8	23.3	5	55	250	1.0	0.1	15.4	16.4	20.0	5
MM1Z C24	WO	24	22.8	25.6	5	70	250	1.0	0.1	16.8	18.4	22.0	5
MM1Z C27	WP	27	25.1	28.9	2	80	300	0.5	0.1	18.9	21.4	25.3	2
MM1Z C30	WQ	30	28.0	32.0	2	80	300	0.5	0.1	21.0	24.4	29.4	2
MM1Z C33	WR	33	31.0	35.0	2	80	325	0.5	0.1	23.1	27.4	33.4	2
MM1Z C36	WS	36	34.0	38.0	2	90	350	0.5	0.1	25.2	30.4	37.4	2
MM1Z C39	WT	39	37.0	41.0	2	130	350	0.5	0.1	27.3	33.4	41.2	2
MM1Z C43	WU	43	40.0	46.0	2	100	700	1.0	0.1	32.0	10.0	12.0	5
MM1Z C47	WV	47	44.0	50.0	2	100	750	1.0	0.1	35.0	10.0	12.0	5
MM1Z C51	WW	51	48.0	54.0	2	125	700	1.0	0.1	36.0	10.0	12.0	5
MM1Z C56	XW	56	52.0	60.0	2	135	700	1.0	0.1	39.0	10.0	12.0	5

TYPICAL TRANSIENT CHARACTERISTICS

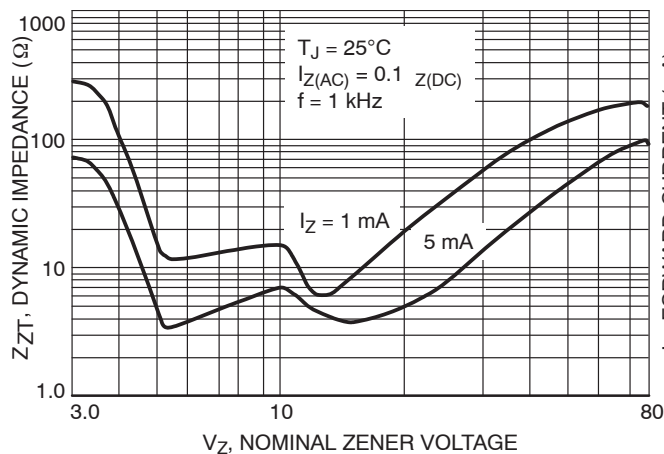


Figure 1. Effect of Zener Voltage on Zener Impedance

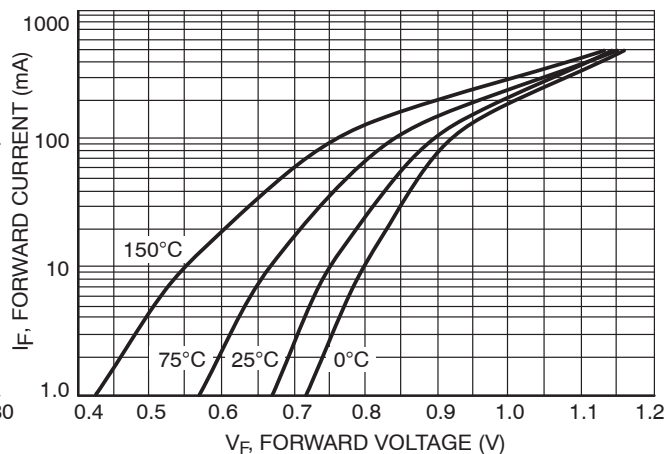


Figure 2. Typical Forward Voltage

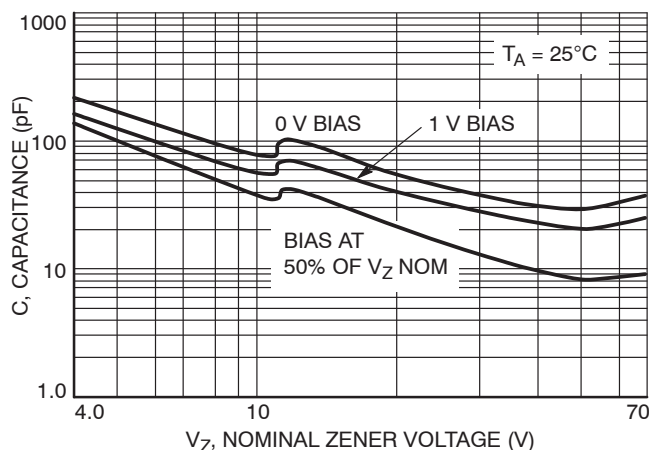


Figure 3. Typical Capacitance

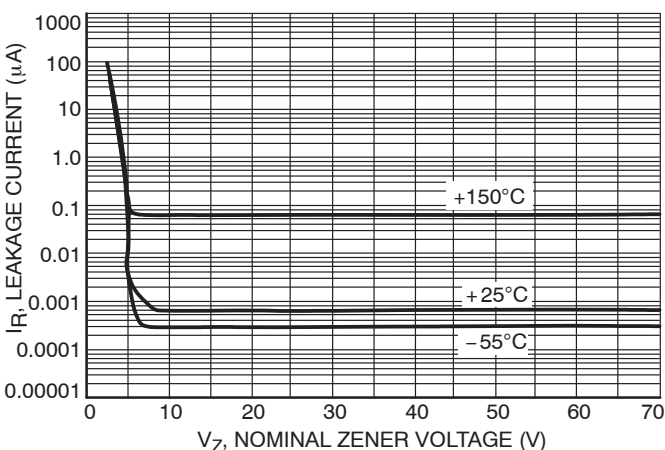


Figure 4. Typical Leakage Current

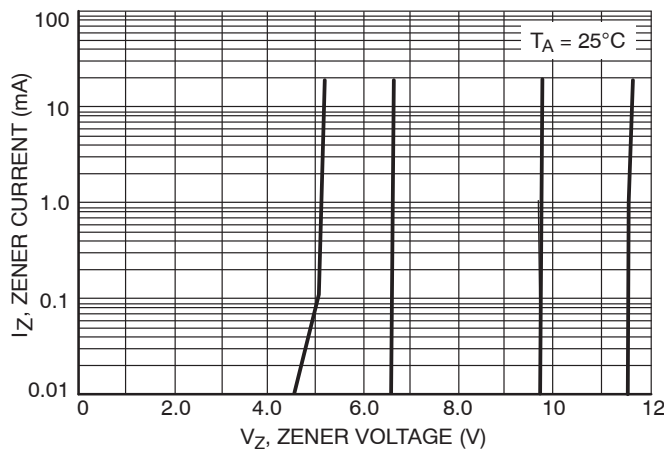


Figure 5. Zener Voltage versus Zener Current (V_Z Up to 12 V)

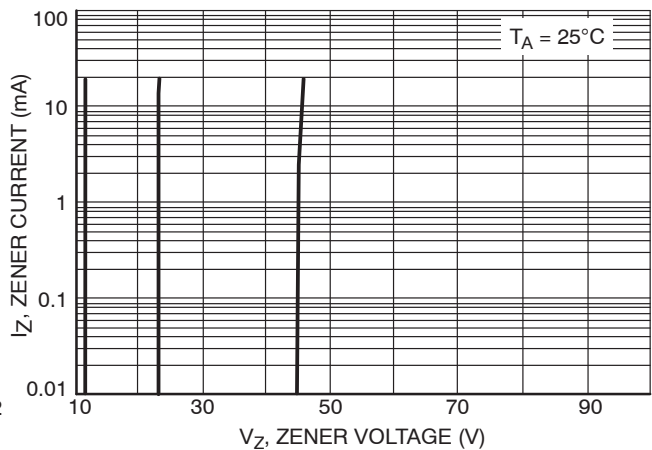


Figure 6. Zener Voltage versus Zener Current (12 V to 56 V)

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