SOD-123 Plastic- Enca psulate Zener Diode

Features

- Low zener Impedance
- 500mW; power dissipation of 500mW
- High stability and high reliability

Pb
RoHS
COMPLIANT

SOD-123

Applications

- SOD-123 Small o utline plastic package
- Polarity: color band denotes cathode end
- Epoxy UL: 94V-0
- Mounting position: any

Maximum Ratings & Electrical Characteristics (T_A=25℃ unless otherwise noted)			
Parameter	**Symbol**	**Value**	**Unit**
Power dissipation	P_D	500	mW
Forward voltage @IF=10mA	V_f	0.9	V
Storage temperature range	T_s	- 65 +150	°C

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 Thermal Resistance measurement obtained via infrared Scan Method.
4 f=1KHz

Electrical Characteristics (T_A=25℃ unless otherwise noted)

Device	Marking	Zener Voltage Range				Maximum Reverse Current	
		Vz@Izt			Izt	IR	VR
		Min(V)	Nom (V)	Max(V)	uA	uA	V
MMSZ4678	CC	1.71	1.8	1.89	50	7.5	1
MMSZ4679	CD	1.90	2.0	2.10	50	5	1
MMSZ4680	CE	2.09	2.2	2.31	50	4	1
MMSZ4681	CF	2.28	2.4	2.52	50	2	1
MMSZ4682	CH	2.57	2.7	2.84	50	1	1
MMSZ4683	CJ	2.85	3.0	3.15	50	0.8	1
MMSZ4684	CK	3.13	3.3	3.47	50	7.5	1.5
MMSZ4685	CM	3.42	3.6	3.78	50	7.5	2
MMSZ4686	CN	3.70	3.9	4.10	50	5	2
MMSZ4687	CP	4.09	4.3	4.52	50	4	2
MMSZ4688	CT	4.47	4.7	4.94	50	10	3
MMSZ4689	CU	4.85	5.1	5.36	50	10	3
MMSZ4690	CV	5.32	5.6	5.88	50	10	4
MMSZ4691	CA	5.89	6.2	6.51	50	10	5
MMSZ4692	CX	6.46	6.8	7.14	50	10	5.1
MMSZ4693	CY	7.13	7.5	7.88	50	10	5.7
MMSZ4694	CZ	7.79	8.2	8.61	50	1	6.2
MMSZ4695	DC	8.27	8.7	9.14	50	1	6.6
MMSZ4696	DD	8.65	9.1	9.56	50	1	6.9
MMSZ4697	DE	9.50	10.0	10.50	50	1	7.6
MMSZ4698	DF	10.45	11.0	11.55	50	0.05	8.4
MMSZ4699	DH	11.40	12.0	12.60	50	0.05	9.1
MMSZ4700	DJ	12.35	13.0	13.65	50	0.05	9.8
MMSZ4701	DK	13.30	14.0	14.70	50	0.05	10.6
MMSZ4702	DM	14.25	15.0	15.75	50	0.05	11.4
MMSZ4703	DN	15.20	16.0	16.80	50	0.05	12.1
MMSZ4704	DP	16.15	17.0	17.85	50	0.05	12.9
MMSZ4705	DT	17.10	18.0	18.90	50	0.05	13.6
MMSZ4706	DU	18.05	19.0	19.95	50	0.05	14.4
MMSZ4707	DV	19.00	20.0	21.00	50	0.01	15.2
MMSZ4708	DA	20.90	22.0	23.10	50	0.01	16.7
MMSZ4709	DX	22.80	24.0	25.20	50	0.01	18.2
MMSZ4710	DY	23.75	25.0	26.25	50	0.01	19
MMSZ4711	EA	25.65	27.0	28.35	50	0.01	20.4
MMSZ4712	EC	26.60	28.0	29.40	50	0.01	21.2
MMSZ4713	ED	28.50	30.0	31.50	50	0.01	22.8
MMSZ4714	EE	31.35	33.0	34.65	50	0.01	25
MMSZ4715	EF	34.20	36.0	37.80	50	0.01	27.3
MMSZ4716	EH	37.05	39.0	40.95	50	0.01	29.6
MMSZ4717	EJ	40.85	43.0	45.15	50	0.01	32.6

Ratings and Characteristics Curves

(T_A = 25℃ unless otherwise noted)

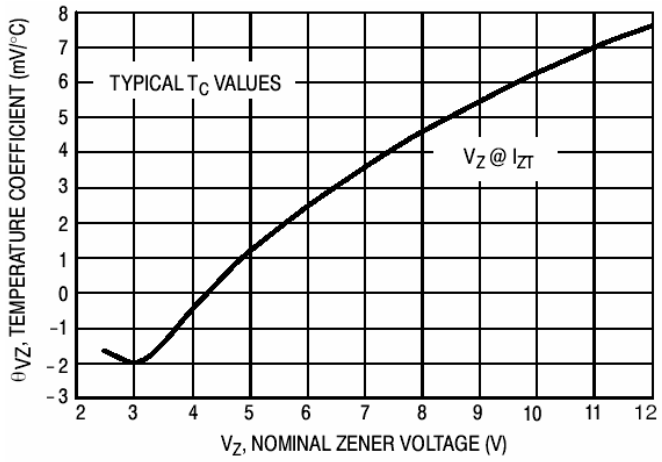


Figure 1. Temperature Coefficients (Temperature Range −55°C to +150°C)

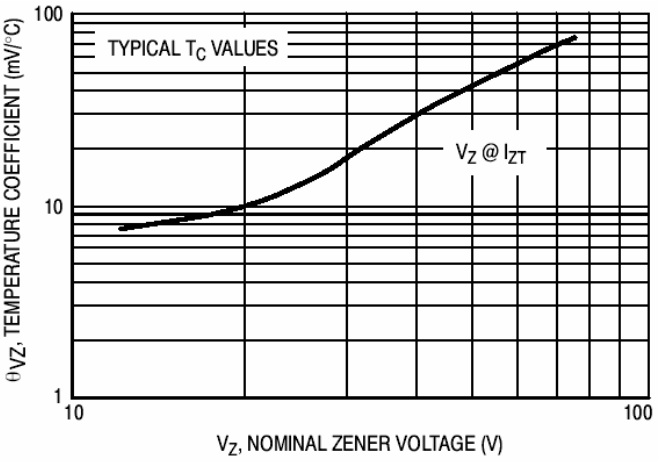


Figure 2. Temperature Coefficients (Temperature Range −55°C to +150°C)

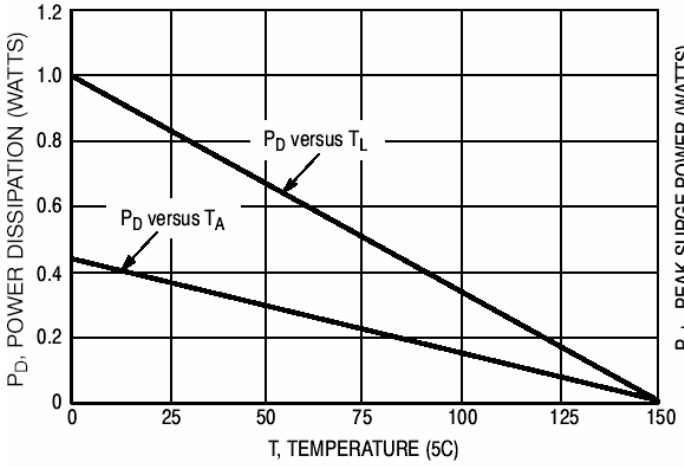


Figure 3. Steady State Power Derating

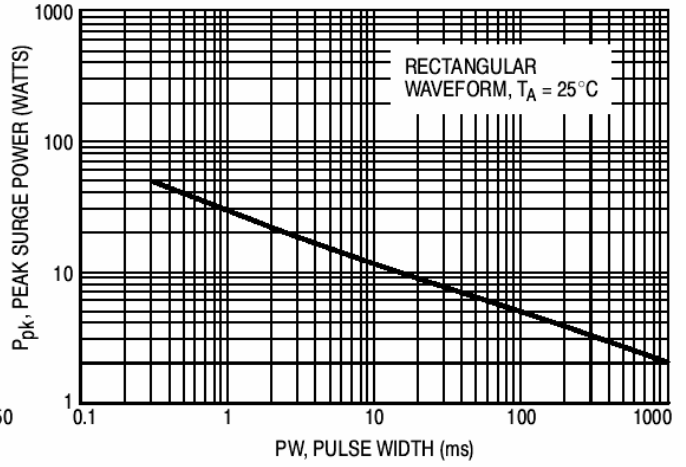


Figure 4. Maximum Nonrepetitive Surge Power

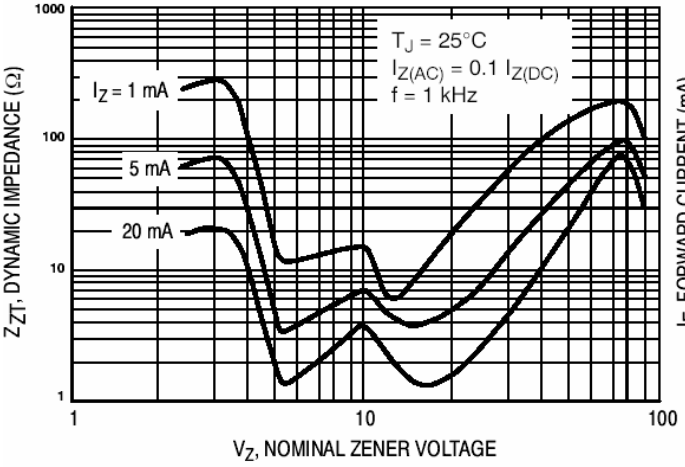


Figure 5. Effect of Zener Voltage on Zener Impedance

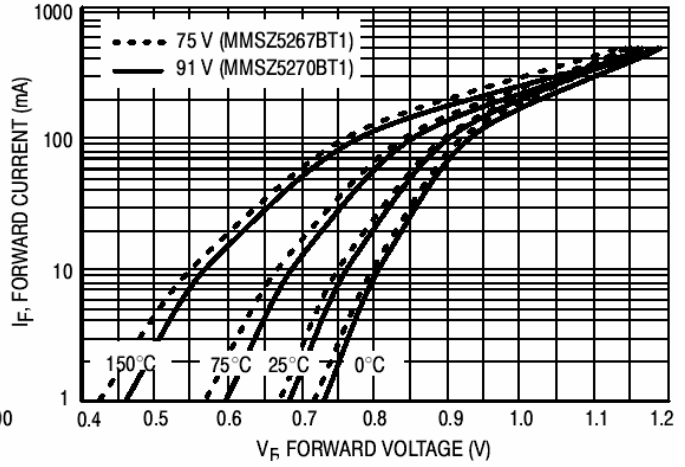


Figure 6. Typical Forward Voltage

Ratings and Characteristics Curves

(T_A = 25℃ unless otherwise noted)

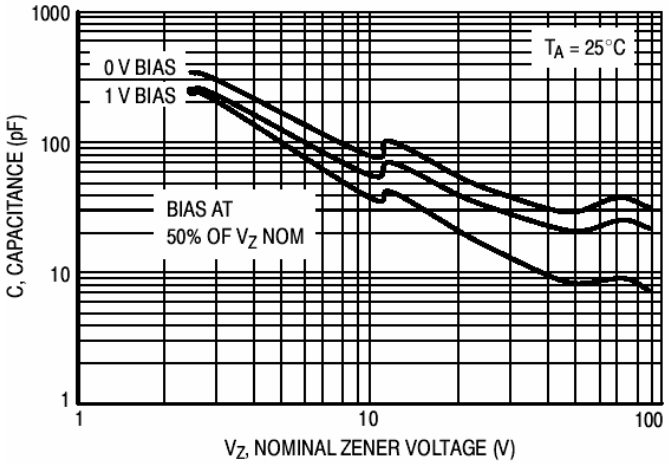


Figure 7. Typical Capacitance

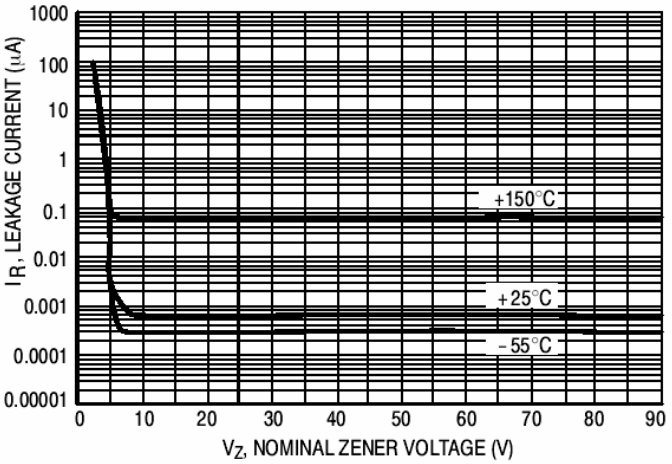


Figure 8. Typical Leakage Current

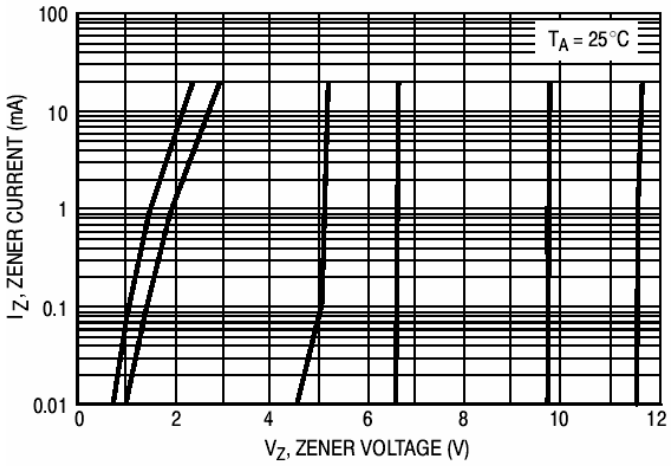


Figure 9. Zener Voltage versus Zener Current (V_Z Up to 12 V)

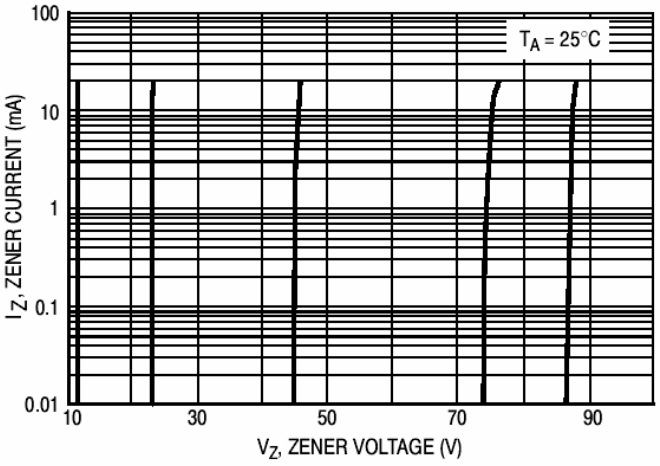
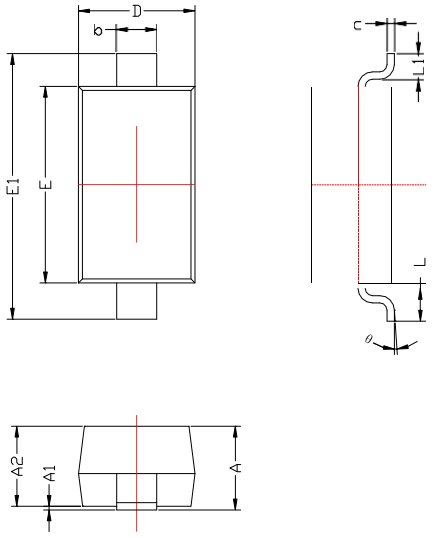


Figure 10. Zener Voltage versus Zener Current (12 V to 91 V)

Package Outline Dimensions

millimeters



SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	1.050	1.250
A1	0.000	0.100
A2	1.050	1.150
b	0.450	0.650
c	0.080	0.150
D	1.500	1.700
E	2.600	2.800
E1	3.550	3.850
L	0.500REF	
L1	0.250	0.450
θ	0°	8°

Revision History

Document Version	Date of release	Description of changes
Rev.A	2013.05.15	First issue

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