

SOD-323 Plastic- Encapsulate Zener Diode

Features

- Low Zener Impedance
- 200mW; Power Dissipation of 200mW
- High Stability and High Reliability



SOD-323

Mechanical Data

- SOD-323 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Epoxy UL: 94V-0
- Mounting Position: Any

Maximum Ratings & Electrical Characteristics (T_A=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Power Dissipation	P _D	200	mW
Forward Voltage @I _F =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 f=1KHz

Electrical Characteristics (TA=25°C 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
MMSZ4678S	CC	1.71	1.8	1.89	50	7.5	1
MMSZ4679S	CD	1.90	2.0	2.10	50	5	1
MMSZ4680S	CE	2.09	2.2	2.31	50	4	1
MMSZ4681S	CF	2.28	2.4	2.52	50	2	1
MMSZ4682S	CH	2.57	2.7	2.84	50	1	1
MMSZ4683S	CJ	2.85	3.0	3.15	50	0.8	1
MMSZ4684S	CK	3.13	3.3	3.47	50	7.5	1.5
MMSZ4685S	CM	3.42	3.6	3.78	50	7.5	2
MMSZ4686S	CN	3.70	3.9	4.10	50	5	2
MMSZ4687S	CP	4.09	4.3	4.52	50	4	2
MMSZ4688S	CT	4.47	4.7	4.94	50	10	3
MMSZ4689S	CU	4.85	5.1	5.36	50	10	3
MMSZ4690S	CV	5.32	5.6	5.88	50	10	4
MMSZ4691S	CA	5.89	6.2	6.51	50	10	5
MMSZ4692S	CX	6.46	6.8	7.14	50	10	5.1
MMSZ4693S	CY	7.13	7.5	7.88	50	10	5.7
MMSZ4694S	CZ	7.79	8.2	8.61	50	1	6.2
MMSZ4695S	DC	8.27	8.7	9.14	50	1	6.6
MMSZ4696S	DD	8.65	9.1	9.56	50	1	6.9
MMSZ4697S	DE	9.50	10.0	10.50	50	1	7.6
MMSZ4698S	DF	10.45	11.0	11.55	50	0.05	8.4
MMSZ4699S	DH	11.40	12.0	12.60	50	0.05	9.1
MMSZ4700S	DJ	12.35	13.0	13.65	50	0.05	9.8
MMSZ4701S	DK	13.30	14.0	14.70	50	0.05	10.6
MMSZ4702S	DM	14.25	15.0	15.75	50	0.05	11.4
MMSZ4703S	DN	15.20	16.0	16.80	50	0.05	12.1
MMSZ4704S	DP	16.15	17.0	17.85	50	0.05	12.9
MMSZ4705S	DT	17.10	18.0	18.90	50	0.05	13.6
MMSZ4706S	DU	18.05	19.0	19.95	50	0.05	14.4
MMSZ4707S	DV	19.00	20.0	21.00	50	0.01	15.2
MMSZ4708S	DA	20.90	22.0	23.10	50	0.01	16.7
MMSZ4709S	DX	22.80	24.0	25.20	50	0.01	18.2
MMSZ4710S	DY	23.75	25.0	26.25	50	0.01	19
MMSZ4711S	EA	25.65	27.0	28.35	50	0.01	20.4
MMSZ4712S	EC	26.60	28.0	29.40	50	0.01	21.2
MMSZ4713S	ED	28.50	30.0	31.50	50	0.01	22.8
MMSZ4714S	EE	31.35	33.0	34.65	50	0.01	25
MMSZ4715S	EF	34.20	36.0	37.80	50	0.01	27.3
MMSZ4716S	EH	37.05	39.0	40.95	50	0.01	29.6
MMSZ4717S	EJ	40.85	43.0	45.15	50	0.01	32.6

Ratings and Characteristics Curves

($T_A = 25^\circ\text{C}$ unless otherwise noted)

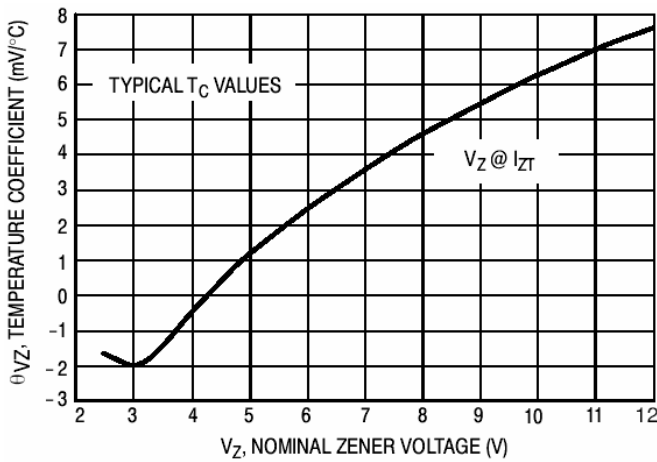


Figure 1. Temperature Coefficients
(Temperature Range -55°C to $+150^\circ\text{C}$)

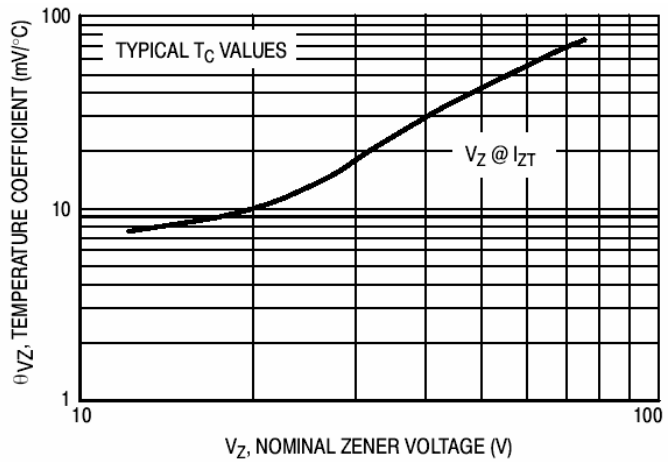


Figure 2. Temperature Coefficients
(Temperature Range -55°C to $+150^\circ\text{C}$)

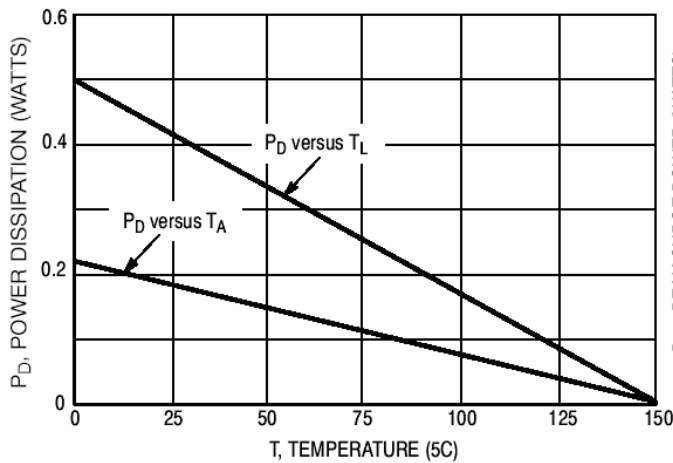


Figure 3. Steady State Power Derating

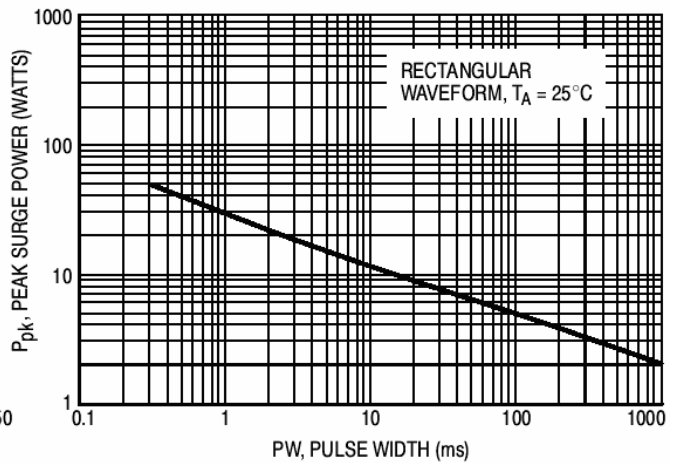


Figure 4. Maximum Nonrepetitive Surge Power

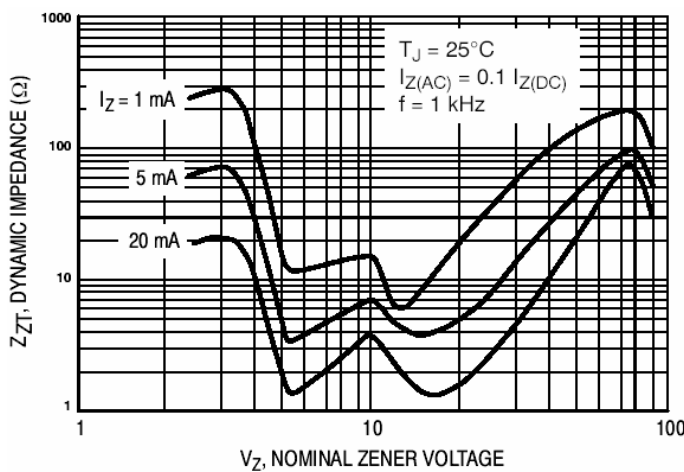


Figure 5. Effect of Zener Voltage on
Zener Impedance

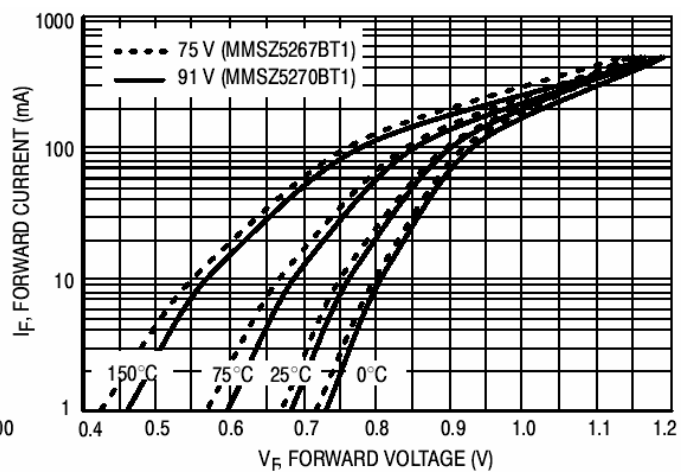


Figure 6. Typical Forward Voltage

Ratings and Characteristics Curves

($T_A = 25^\circ\text{C}$ unless otherwise noted)

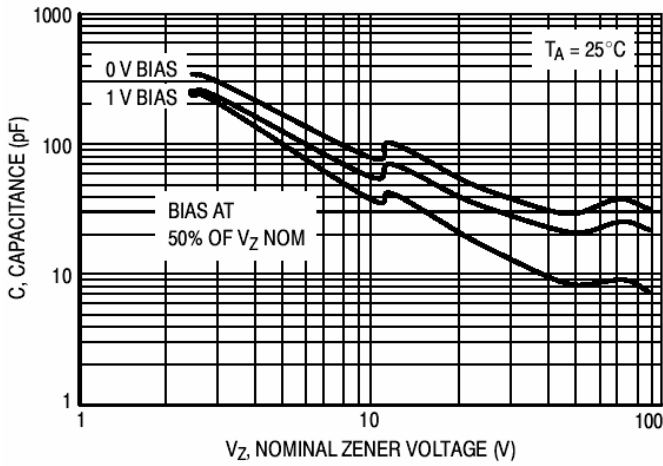


Figure 7. Typical Capacitance

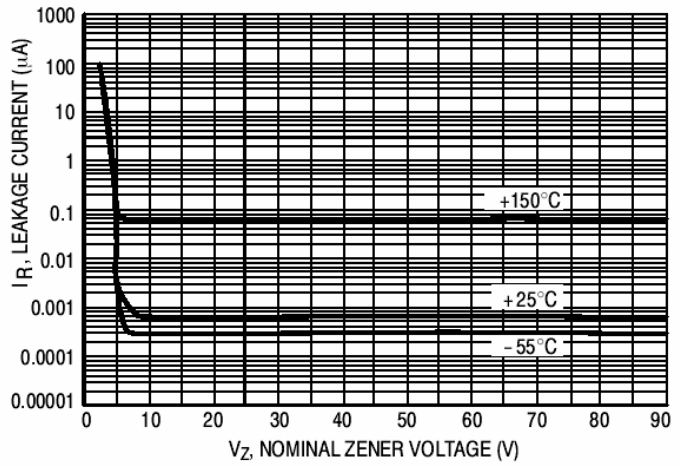


Figure 8. Typical Leakage Current

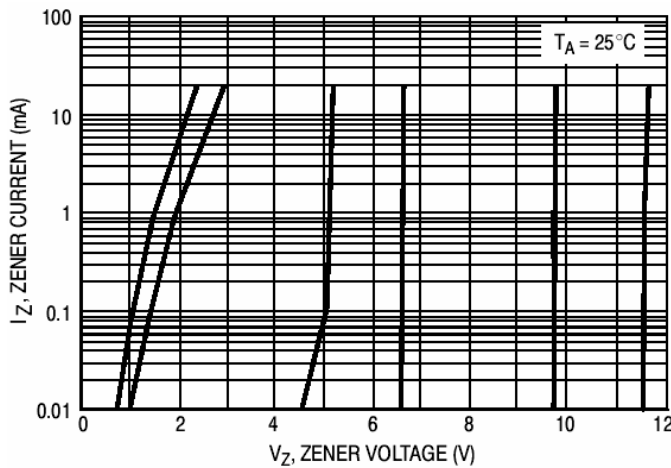


Figure 9. Zener Voltage versus Zener Current (V_Z Up to 12 V)

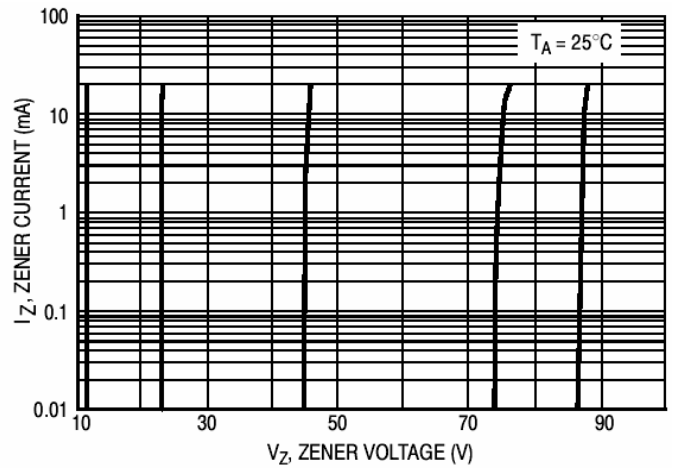
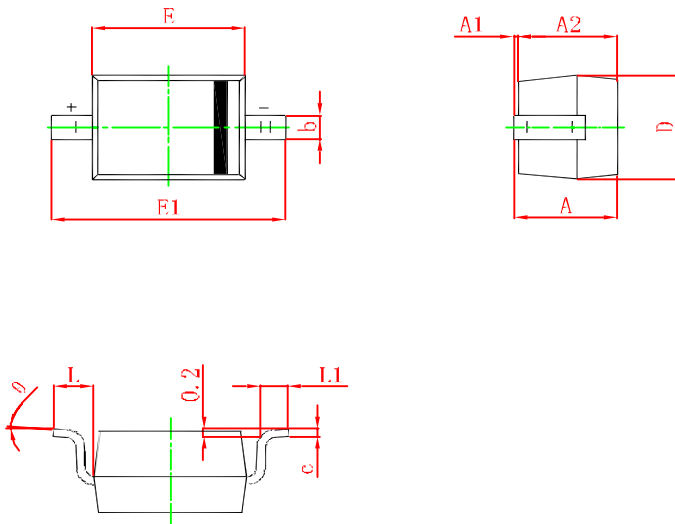


Figure 10. Zener Voltage versus Zener Current (12 V to 91 V)

Package Outline Dimensions

millimeters



Symbol	Min	Max
A		1.000
A1	0.000	0.100
A2	0.800	0.900
b	0.250	0.350
c	0.080	0.150
D	1.200	1.400
E	1.600	1.800
E1	2.500	2.700
L	0.475REF	
L1	0.250	0.400
θ	0°	8°

Revision History

Document Version	Date of release	Description of changes
Rev.A	2016.03.24	First issue

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