

MMSZ4678-MMSZ4717 ZENER DIODE

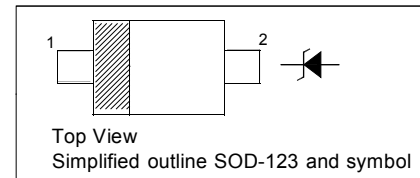
SOD-123 Plastic-Encapsulate Diodes

Features

- Zener Voltage 1.8V-43V
- Wide Zener Reverse Voltage Range
- Small Package Size for High Density Applications

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Maximum Ratings (T_a =25°C unless otherwise specified)

Characteristic	Symbol	Value	Unit
Forward voltage @I _F =10mA	V _F	0.9	V
Power Dissipation	P _D	350	mW
Thermal Resistance, Junction to Ambient Air	R _{θJA}	357	°C/W
Operating and Storage Temperature Range	T _j , T _{STG}	-65 ~+150	°C

Notes: Device mounted on ceramic PCB;5.0mm×7.0mm with pad areas 35 mm²

Electrical Characteristics($T_a = 25^\circ\text{C}$ unless otherwise specified)

Device	Device Marking	Zener Voltage (Notes 1)				Leakage Current	
		Vz (Volts)			@ Izr	IR @ VR	
		Min	Norn	Max	μA	μA	Volts
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	2.565	2.7	2.835	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	10.50	50	1	7.6
MMSZ4698	DF	10.45	11	11.55	50	0.05	8.4
MMSZ4699	DH	11.40	12	12.60	50	0.05	9.1
MMSZ4700	DJ	12.35	13	13.65	50	0.05	9.8
MMSZ4701	DM	13.30	14	14.70	50	0.05	10.6
MMSZ4702	DK	14.25	15	15.75	50	0.05	11.4
MMSZ4703	DN	15.20	16	16.80	50	0.05	12.1
MMSZ4704	DP	16.15	17	17.85	50	0.05	12.9
MMSZ4705	DT	17.10	18	18.90	50	0.05	13.6
MMSZ4706	DU	18.05	19	19.95	50	0.05	14.4
MMSZ4707	DV	19.00	20	21.00	50	0.01	15.2
MMSZ4708	DA	20.90	22	23.10	50	0.01	16.7
MMSZ4709	DX	22.80	24	25.20	50	0.01	18.2
MMSZ4710	DY	23.75	25	26.25	50	0.01	19.0
MMSZ4711	EA	25.65	27	28.35	50	0.01	20.4
MMSZ4712	EC	26.60	28	29.40	50	0.01	21.2
MMSZ4713	ED	28.50	30	31.50	50	0.01	22.8
MMSZ4714	EE	31.35	33	34.65	50	0.01	25.0
MMSZ4715	EF	34.20	36	37.80	50	0.01	27.3
MMSZ4716	EH	37.05	39	40.95	50	0.01	29.6
MMSZ4717	EJ	40.85	43	45.15	50	0.01	32.6

Notes :

(1) Nominal Zener voltage is measured with the device junction in thermal equilibrium at $T_L = 30^\circ\text{C} \pm 1^\circ\text{C}$

Typical Characteristics

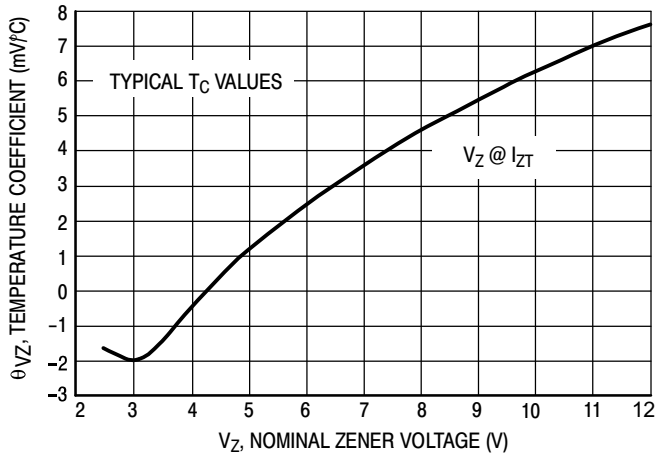


Figure 1. Temperature Coefficients
(Temperature Range -55°C to $+150^{\circ}\text{C}$)

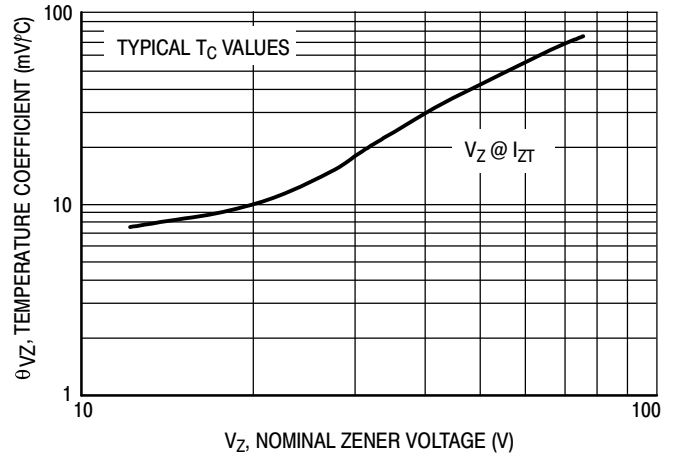


Figure 2. Temperature Coefficients
(Temperature Range -55°C to $+150^{\circ}\text{C}$)

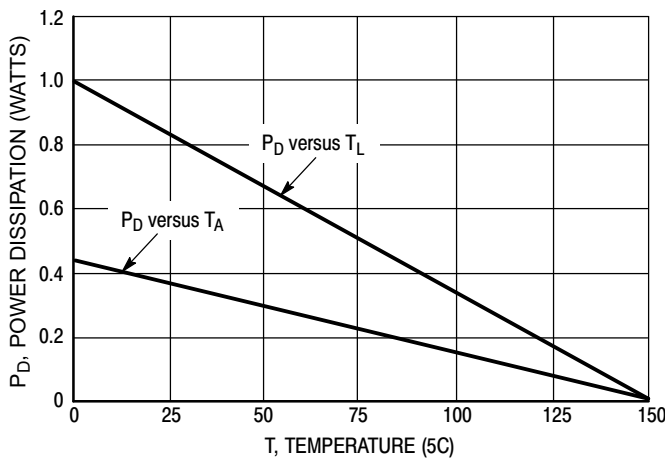


Figure 3. Steady State Power Derating

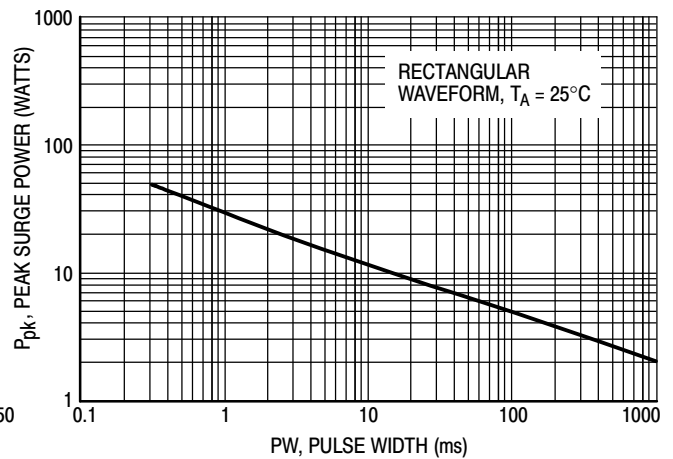


Figure 4. Maximum Nonrepetitive Surge Power

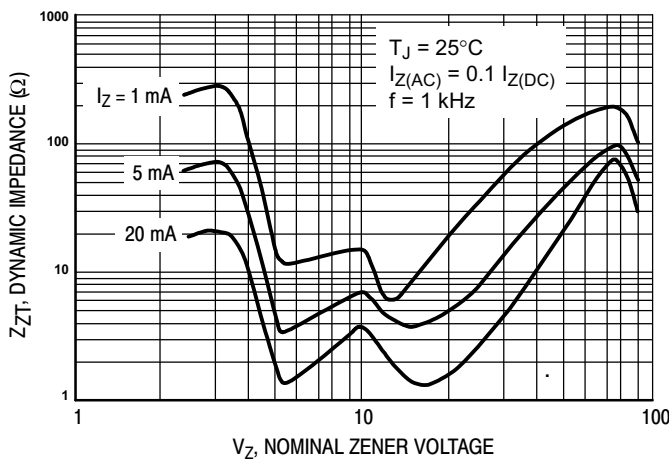


Figure 5. Effect of Zener Voltage on
Zener Impedance

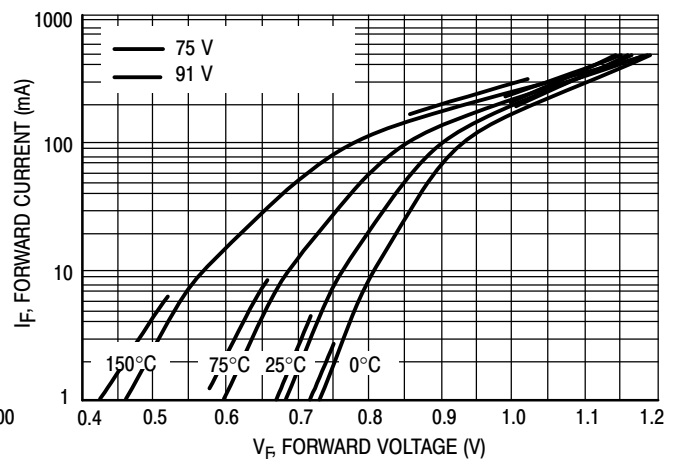


Figure 6. Typical Forward Voltage

Typical Characteristics

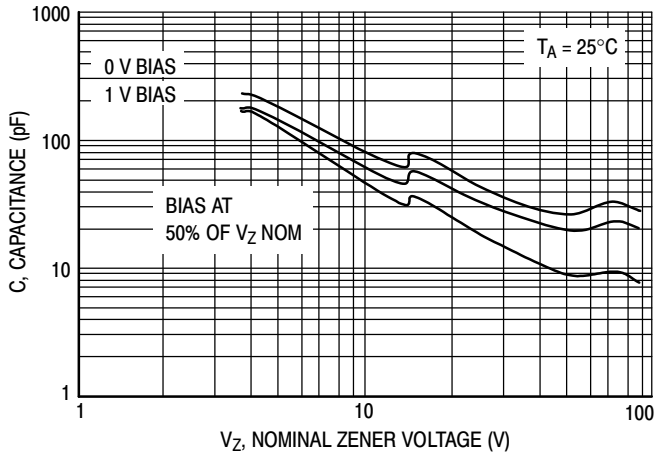


Figure 7. Typical Capacitance

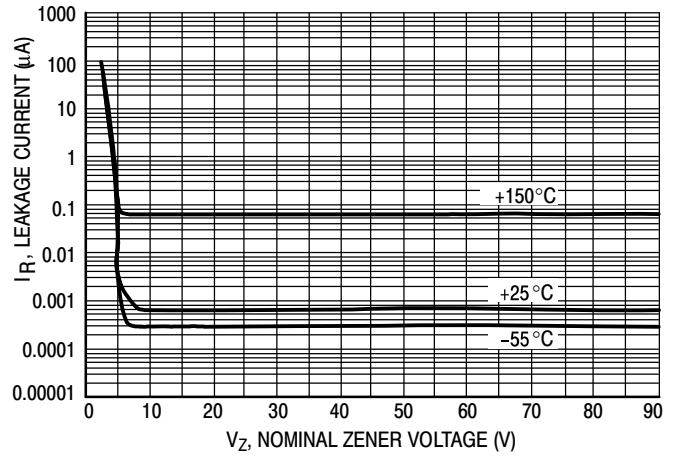


Figure 8. Typical Leakage Current

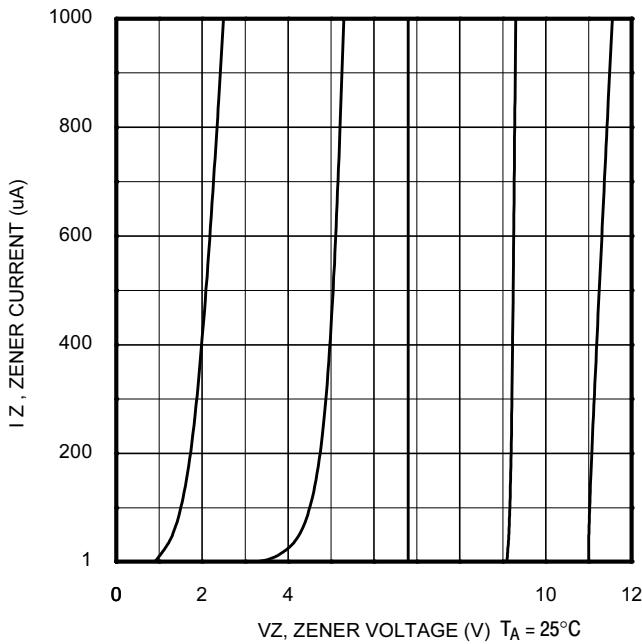


Figure 9. Zener Voltage versus Zener Current (V_Z Up to 12 V)

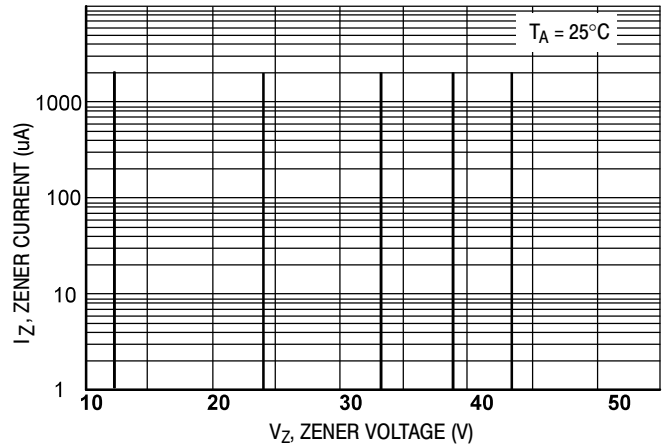


Figure 10. Zener Voltage versus Zener Current (12 V to 43 V)

PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123

