



MMSZ2V4CW THRU MMSZ51VCW

Flat Lead Surface Mount Plastic Package Zener Voltage Regulators

500mW SOD-123 SURFACE MOUNT Flat Lead Surface Mount Plastic Package Zener Voltage Regulators

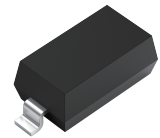
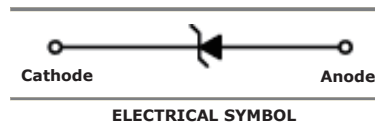
Absolute Maximum Ratings $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
P_D	Power Dissipation	500	mW
T_{STG}	Storage Temperature Range	-65 to +150	$^\circ\text{C}$
T_{OPR}	Operating Temperature Range	-65 to +150	$^\circ\text{C}$

These ratings are limiting values above which the serviceability of the diode may be impaired.

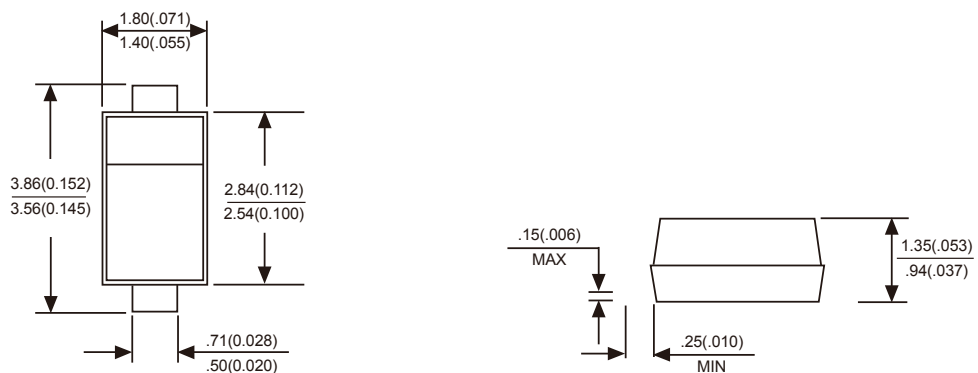
Specification Features:

- Wide Zener Voltage Range Selection, 2.4V to 75V
- VZ Tolerance Selection of $\pm 5\%$ (C Series)
- Flat Lead SOD-123 Plastic Package
- Surface Device Type Mounting
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish
- Band Indicates Cathode



SOD-123 Flat Lead

Flat Lead SOD-123 Package Outline





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Electrical Characteristics

T_A = 25°C unless otherwise noted

Device Type	Device Marking	V _Z @ I _{ZT} (Volts)			I _{ZT} (mA)	Z _{ZT} @ I _{ZT} (Ω) Max	I _{ZK} (mA)	Z _{ZK} @ I _{ZK} (Ω) Max	I _R @ V _R (μA) Max	V _R (Volts)
		Min	Nom	Max						
MMSZ2V4CW	WX	2.28	2.4	2.52	5	100	1	564	45	1
MMSZ2V7CW	W1	2.57	2.7	2.84	5	100	1	564	18	1
MMSZ3V0CW	W2	2.85	3.0	3.15	5	100	1	564	9	1
MMSZ3V3CW	W3	3.14	3.3	3.47	5	95	1	564	4.5	1
MMSZ3V6CW	W4	3.42	3.6	3.78	5	90	1	564	4.5	1
MMSZ3V9CW	W5	3.71	3.9	4.10	5	90	1	564	2.7	1
MMSZ4V3CW	W6	4.09	4.3	4.52	5	90	1	564	2.7	1
MMSZ4V7CW	W7	4.47	4.7	4.94	5	80	1	470	2.7	2
MMSZ5V1CW	W8	4.85	5.1	5.36	5	60	1	451	1.8	2
MMSZ5V6CW	W9	5.32	5.6	5.88	5	40	1	376	0.9	2
MMSZ6V2CW	WA	5.89	6.2	6.51	5	10	1	141	2.7	4
MMSZ6V8CW	WB	6.46	6.8	7.14	5	15	1	75	1.8	4
MMSZ7V5CW	WC	7.11	7.5	7.86	5	15	1	75	0.9	5
MMSZ8V2CW	WD	7.79	8.2	8.61	5	15	1	75	0.63	5
MMSZ9V1CW	WE	8.65	9.1	9.56	5	15	1	94	0.45	6
MMSZ10VCW	WF	9.50	10	10.50	5	20	1	141	0.18	7
MMSZ11VCW	WG	10.45	11	11.55	5	20	1	141	0.09	8
MMSZ12VCW	WH	11.40	12	12.60	5	25	1	141	0.09	8
MMSZ13VCW	WI	12.35	13	13.65	5	30	1	160	0.09	8
MMSZ15VCW	WJ	14.25	15	15.75	5	30	1	188	0.045	10.5
MMSZ16VCW	WK	15.20	16	16.80	5	40	1	188	0.045	11.2
MMSZ18VCW	WL	17.10	18	18.90	5	45	1	212	0.045	12.6
MMSZ20VCW	WM	19.00	20	21.00	5	55	1	212	0.045	14.0
MMSZ22VCW	WN	20.90	22	23.10	5	55	1	235	0.045	15.4
MMSZ24VCW	WO	22.80	24	25.20	5	70	1	235	0.045	16.8
MMSZ27VCW	WP	25.65	27	28.35	2	80	0.5	282	0.045	18.9
MMSZ30VCW	WQ	28.50	30	31.50	2	80	0.5	282	0.045	21.0
MMSZ33VCW	WR	31.35	33	34.65	2	80	0.5	306	0.045	23.0
MMSZ36VCW	WS	34.20	36	37.80	2	90	0.5	329	0.045	25.2
MMSZ39VCW	WT	37.05	39	40.95	2	130	0.5	329	0.045	27.3
MMSZ43VCW	WU	40.85	43	45.15	2	150	0.5	353	0.045	30.1
MMSZ47VCW	WV	44.65	47	49.35	2	170	0.5	353	0.045	33.0
MMSZ51VCW	WW	48.45	51	53.55	2	180	0.5	376	0.045	35.7

V_F Forward Voltage = 900mV Maximum @ I_F = 10 mA for all types

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 Tak Cheong Electronics 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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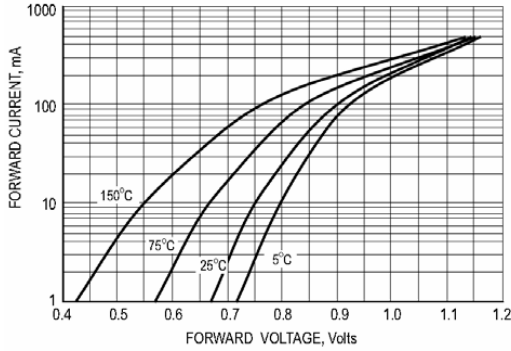


Fig. 1 TYPICAL FORWARD VOLTAGE

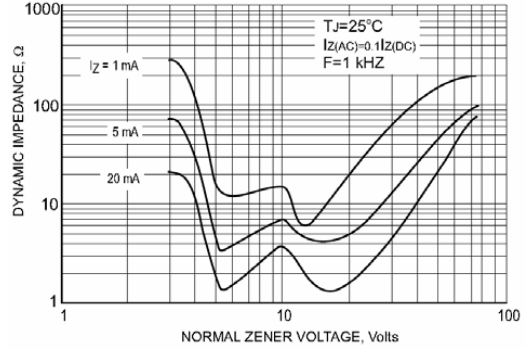


Fig. 2 EFFECT OF ZENER VOLTAGE ON ZENER IMPEDANCE

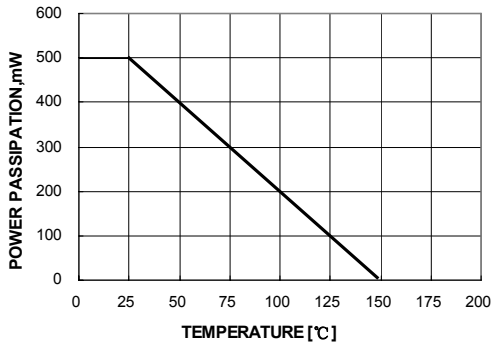


Fig. 3 POWER DISSIPATION VS. AMBIENT TEMP.

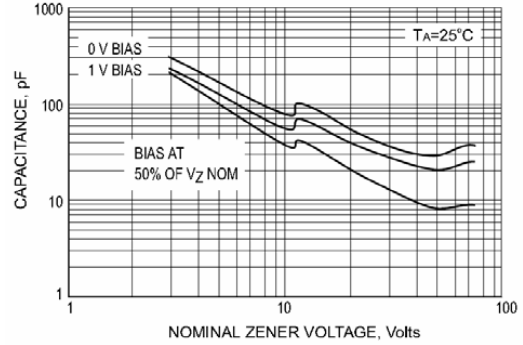


Fig. 4 TYPICAL CAPACITANCE

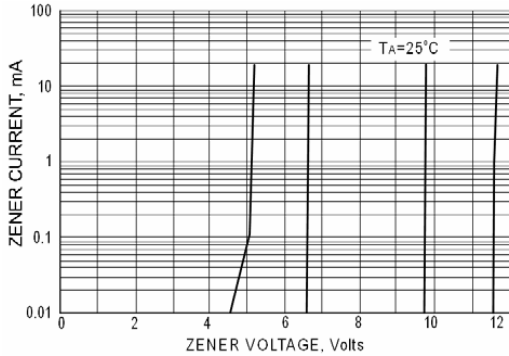


Fig. 5 ZENER BREAKDOWN CHARACTERISTICS

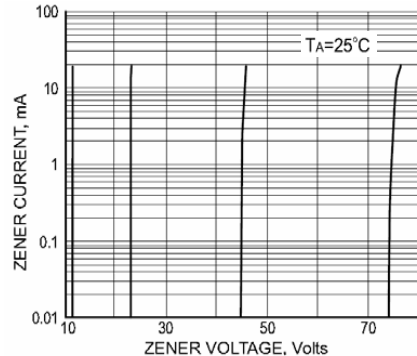


Fig. 6 ZENER BREAKDOWN CHARACTERISTICS

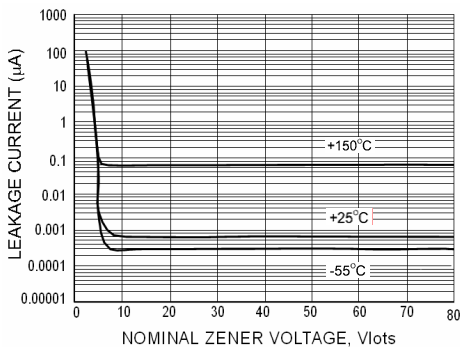


Fig. 7 TYPICAL LEAKAGE CURRENT

