Elektronische Bauelemente

MM3ZxxxCW-C Series

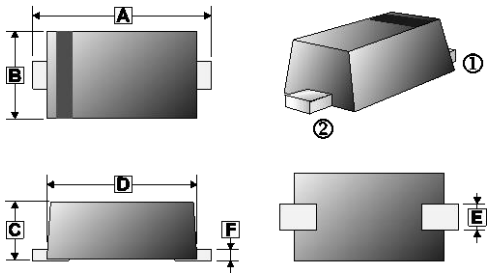
200mW, SOD-323L
Surface Mount Zener Diodes

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

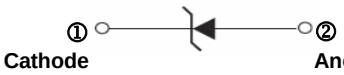
FEATURES

- Wide Zener Voltage Range Selection, 2.4V to 75V
- V_Z Tolerance Selection of ±5%(C Series)
- Flat Lead SOD-323L Small Outline Plastic Package
- Surface Device Type Mounting
- Green EMC
- Matte Tin(Sn) Lead Finish
- Band Indicates Cathode

SOD-323L



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.30	2.80	D	1.60	2.10
B	1.05	1.60	E	0.25	0.70
C	0.60	1.08	F	0.05	0.25



PACKAGE INFORMATION

Package	MPQ	Leader Size
SOD-323L	3K	7 inch

ORDER INFORMATION

Part Number	Type
MM3ZxxxCW-C Series	Lead (Pb)-free and Halogen-free

ABSOLUTE MAXIMUM RATINGS (T_A=25°C unless otherwise specified)

Parameter	Symbol	Rating	Unit
Power Dissipation	P_D	200	mW
Operating and Storage Temperature Range	T_J, T_{STG}	-65~150	°C

ELECTRICAL RATINGS (T_A=25°C unless otherwise specified, V_F=1V Maximum @I_F=10mA)

Type Number	Marking	Zener Voltage Range				Maximum Zener Impedance			Maximum Reverse Leakage Current	
		V_Z @I_{ZT}			I_{ZT}	Z_{ZT} @I_{ZT}	Z_{ZK} @I_{ZK}	I_{ZK}	I_R @V_R	
		Min. (V)	Nom. (V)	Max. (V)	mA	Ω	Ω	mA	μA	V
MM3Z2V4CW-C	Z0	2.28	2.4	2.52	5	100	564	1	45	1
MM3Z2V7CW-C	Z1	2.57	2.7	2.84	5	100	564	1	18	1
MM3Z3V0CW-C	Z2	2.85	3	3.15	5	100	564	1	9	1
MM3Z3V3CW-C	Z3	3.14	3.3	3.47	5	95	564	1	4.5	1
MM3Z3V6CW-C	Z4	3.42	3.6	3.78	5	90	564	1	4.5	1
MM3Z3V9CW-C	Z5	3.71	3.9	4.1	5	90	564	1	2.7	1
MM3Z4V3CW-C	Z6	4.09	4.3	4.52	5	90	564	1	2.7	1
MM3Z4V7CW-C	Z7	4.47	4.7	4.94	5	80	470	1	2.7	2
MM3Z5V1CW-C	Z8	4.85	5.1	5.36	5	60	451	1	1.8	2
MM3Z5V6CW-C	Z9	5.32	5.6	5.88	5	40	376	1	0.9	2
MM3Z6V2CW-C	ZA	5.89	6.2	6.51	5	10	141	1	2.7	4

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ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise specified, V_F=1V Maximum@ I_F=10mA)

Type Number	Marking	Zener Voltage Range				Maximum Zener Impedance			Maximum Reverse Leakage Current	
		V_Z @I_{ZT}			I_{ZT}	Z_{ZT} @I_{ZT}	Z_{ZK} @I_{ZK}	I_{ZK}	I_R @V_R	
		Min.(V)	Nom.(V)	Max.(V)	mA	Ω	Ω	mA	μA	V
MM3Z6V8CW-C	ZB	6.46	6.8	7.14	5	15	75	1	1.8	4
MM3Z7V5CW-C	ZC	7.11	7.5	7.86	5	15	75	1	0.9	5
MM3Z8V2CW-C	ZD	7.79	8.2	8.61	5	15	75	1	0.63	5
MM3Z9V1CW-C	ZE	8.65	9.1	9.56	5	15	94	1	0.45	6
MM3Z10VCW-C	ZF	9.5	10	10.5	5	20	141	1	0.18	7
MM3Z11VCW-C	ZG	10.45	11	11.55	5	20	141	1	0.09	8
MM3Z12VCW-C	ZH	11.4	12	12.6	5	25	141	1	0.09	8
MM3Z13VCW-C	ZJ	12.35	13	13.65	5	30	160	1	0.09	8
MM3Z15VCW-C	ZK	14.25	15	15.75	5	30	188	1	0.045	10.5
MM3Z16VCW-C	ZL	15.2	16	16.8	5	40	188	1	0.045	11.2
MM3Z18VCW-C	ZM	17.1	18	18.9	5	45	212	1	0.045	12.6
MM3Z20VCW-C	ZN	19	20	21	5	55	212	1	0.045	14
MM3Z22VCW-C	ZP	20.9	22	23.1	5	55	235	1	0.045	15.4
MM3Z24VCW-C	ZR	22.8	24	25.2	5	70	235	1	0.045	16.8
MM3Z27VCW-C	ZS	25.65	27	28.35	2	80	282	0.5	0.045	18.9
MM3Z30VCW-C	ZT	28.5	30	31.5	2	80	282	0.5	0.045	21
MM3Z33VCW-C	ZU	31.35	33	34.65	2	80	306	0.5	0.045	23
MM3Z36VCW-C	ZV	34.2	36	37.8	2	90	329	0.5	0.045	25.2
MM3Z39VCW-C	ZW	37.05	39	40.95	2	130	329	0.5	0.045	27.3
MM3Z43VCW-C	ZX	40.85	43	45.15	2	150	353	0.5	0.045	30.1
MM3Z47VCW-C	ZY	44.65	47	49.35	2	170	353	0.5	0.045	33
MM3Z51VCW-C	Z−	48.45	51	53.55	2	180	376	0.5	0.045	35.7
MM3Z56VCW-C	Z=	53.2	56	58.8	2	200	400	0.5	0.045	39.2
MM3Z62VCW-C	Z≡	58.9	62	65.1	2	215	423	0.5	0.045	43.4
MM3Z68VCW-C	Z>	64.6	68	71.4	2	240	447	0.5	0.045	47.6
MM3Z75VCW-C	Z<	71.25	75	78.75	2	255	470	0.5	0.045	52.5

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. 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}.

CHARACTERISTIC CURVES

Fig.1 TYPICAL FORWARD VOLTAGE

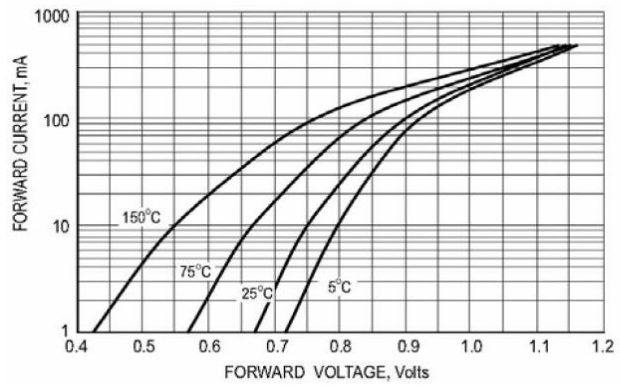


Fig.2 EFFECT OF ZENER VOLTAGE ON ZENER IMPEDANCE

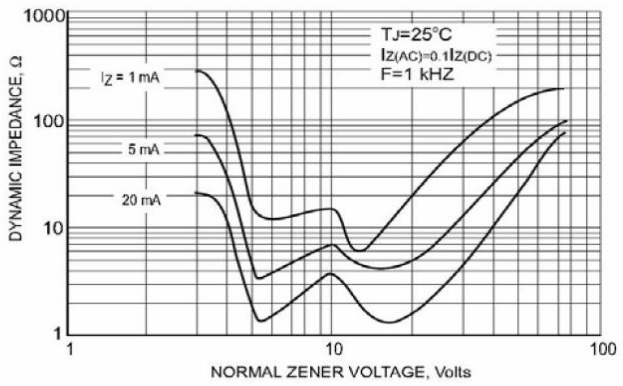


Fig.3 POWER DISSIPATION VS. AMBIENT TEMP.

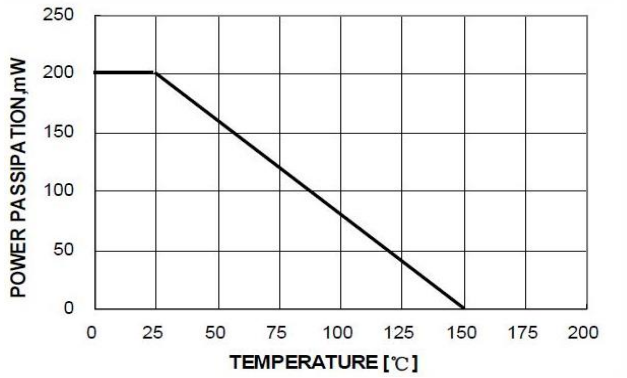


Fig.4 TYPICAL CAPACITANCE

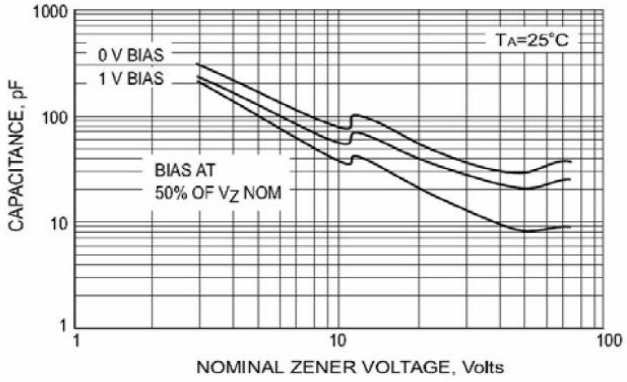


Fig.5 ZENER BREAKDOWN CHARACTERISTICS

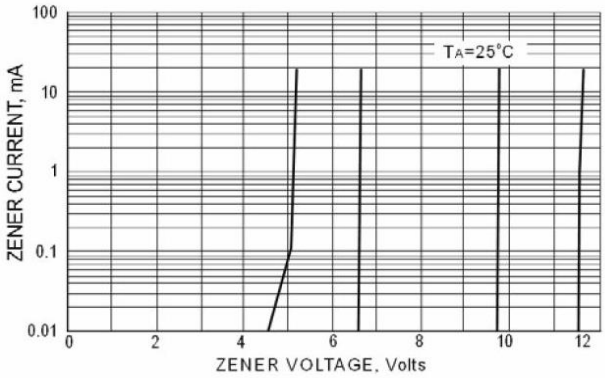


Fig.6 ZENER BREAKDOWN CHARACTERISTICS

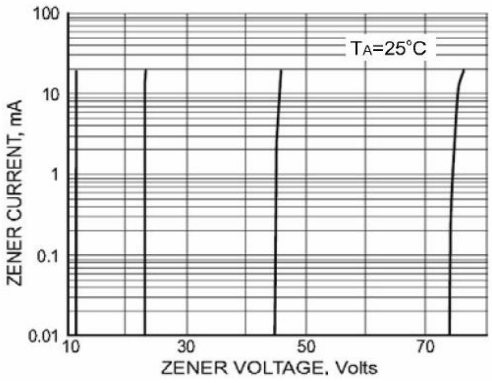


Fig.7 TYPICAL LEAKGE CURRENT

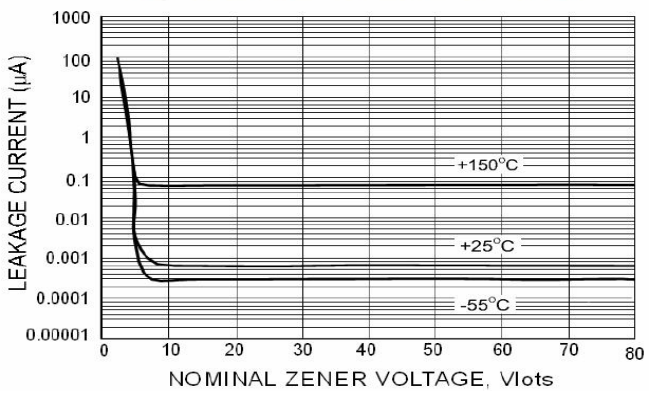
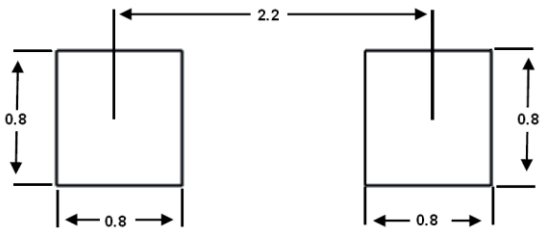


Fig.8 MOUNTING PAD LAYOUT



*Dimensions in millimeters