

## FEATURES

- Large selection of zener voltages: 2V ~ 75V
- Tight voltage tolerance:  $\pm 2\%$  for B-series
- Ultra low-profile package well suited for automated assembly
- MSL Class 1 compatible

## APPLICATIONS

- General voltage regulation
- Mobile & handheld systems



## ORDERING INFORMATION

Part Number	Marking	Package
MM3Z2V0BW - MM3Z75BW	See Page 2	SOD-323

## MAXIMUM RATING (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Forward Voltage @ $I_F=10\text{mA}$	$V_F$	0.9	V
Power Dissipation	$P_D$	400	mW
Thermal Resistance (Junction-to-Ambient)	$R_{\theta JA}$	313	$^\circ\text{C}/\text{W}$
Junction Temperature Range	$T_J$	-55 ~ +150	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-65 ~ +150	$^\circ\text{C}$

Note: Device mounted on an FR4 Printed-Circuit Board (PCB), single-sided copper, tin-plated and standard footprint

**Characteristics at Ta = 25°C**

Type	Marking	Zener Voltage Range (1)			I <sub>ZT</sub> (mA)	Dynamic Impedance	Reverse Current	
		V <sub>ZT</sub> ( at I <sub>ZT</sub> )				Z <sub>ZT</sub> ( at I <sub>ZT</sub> )	I <sub>R</sub>	at V <sub>R</sub>
		Min ( V )	Nom ( V )	Max ( V )		Max ( Ω )	Max ( μA )	( V )
MM3Z2V0BW	B0	1.96	2.0	2.04	5	100	120	0.5
MM3Z2V2BW	C0	2.16	2.2	2.24	5	100	120	0.7
MM3Z2V4BW	1C	2.35	2.4	2.45	5	100	120	1
MM3Z2V7BW	1D	2.65	2.7	2.75	5	110	120	1
MM3Z3V0BW	1E	2.94	3.0	3.06	5	120	50	1
MM3Z3V3BW	1F	3.23	3.3	3.37	5	130	20	1
MM3Z3V6BW	1H	3.53	3.6	3.67	5	130	10	1
MM3Z3V9BW	1J	3.82	3.9	3.98	5	130	5	1
MM3Z4V3BW	1K	4.21	4.3	4.39	5	130	5	1
MM3Z4V7BW	1M	4.61	4.7	4.79	5	130	2	1
MM3Z5V1BW	1N	5	5.1	5.2	5	130	2	1.5
MM3Z5V6BW	1P	5.49	5.6	5.71	5	80	1	2.5
MM3Z6V2BW	1R	6.08	6.2	6.32	5	50	1	3
MM3Z6V8BW	1X	6.66	6.8	6.94	5	30	0.5	3.5
MM3Z7V5BW	1Y	7.35	7.5	7.65	5	30	0.5	4
MM3Z8V2BW	1Z	8.04	8.2	8.36	5	30	0.5	5
MM3Z9V1BW	2A	8.92	9.1	9.28	5	30	0.5	6
MM3Z10BW	2B	9.8	10	10.2	5	30	0.1	7
MM3Z11BW	2C	10.78	11	11.22	5	30	0.1	8
MM3Z12BW	2D	11.76	12	12.24	5	35	0.1	9
MM3Z13BW	2E	12.74	13	13.26	5	35	0.1	10
MM3Z15BW	2F	14.7	15	15.3	5	40	0.1	11
MM3Z16BW	2H	15.68	16	16.32	5	40	0.1	12
MM3Z18BW	2J	17.64	18	18.36	5	45	0.1	13
MM3Z20BW	2K	19.6	20	20.4	5	50	0.1	15
MM3Z22BW	2M	21.56	22	22.44	5	55	0.1	17
MM3Z24BW	2N	23.52	24	24.48	5	60	0.1	19
MM3Z27BW	2P	26.46	27	27.54	2	70	0.1	21
MM3Z30BW	2R	29.4	30	30.60	2	80	0.1	23
MM3Z33BW	2X	32.34	33	33.66	2	80	0.1	25
MM3Z36BW	2Y	35.28	36	36.72	2	90	0.1	27
MM3Z39BW	2Z	38.22	39	39.78	2	100	0.1	30
MM3Z43BW	3A	42.14	43	43.86	2	130	0.1	33
MM3Z47BW	3B	46.06	47	47.94	2	150	0.1	36
MM3Z51BW	3C	49.98	51	52.02	2	180	0.1	39
MM3Z56BW	3D	54.88	56	57.12	2	200	0.1	43
MM3Z62BW	3E	60.76	62	63.24	2	215	0.1	47
MM3Z68BW	3F	66.64	68	69.36	2	240	0.1	52
MM3Z75BW	3H	73.5	75	76.5	2	265	0.1	56

 ( 1 ) V<sub>ZT</sub> is tested with pulses (20 ms)

**TYPICAL CHARACTERISTICS** (@  $T_A = 25^\circ\text{C}$  unless otherwise specified)


Fig. 1 Power Derating Curve



Fig. 2 Typical Zener Breakdown Characteristics



Fig. 3 Typical Zener Breakdown Characteristics

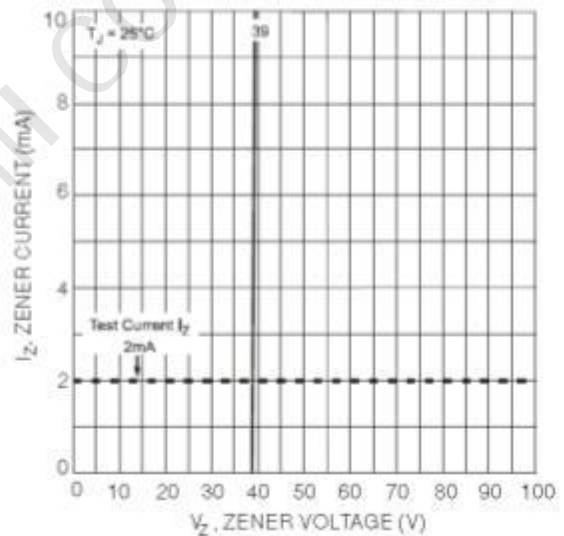


Fig. 4 Typical Zener Breakdown Characteristics

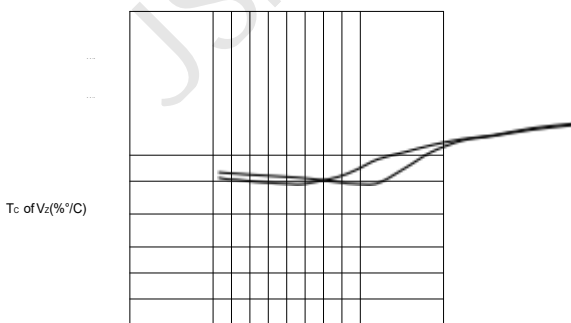


Fig. 5 Typical Temperature Coefficient of Zener Voltage

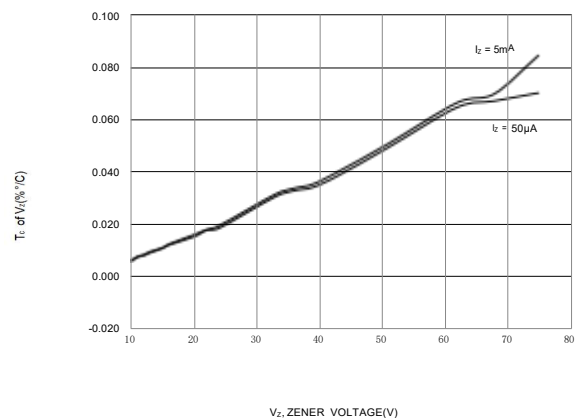
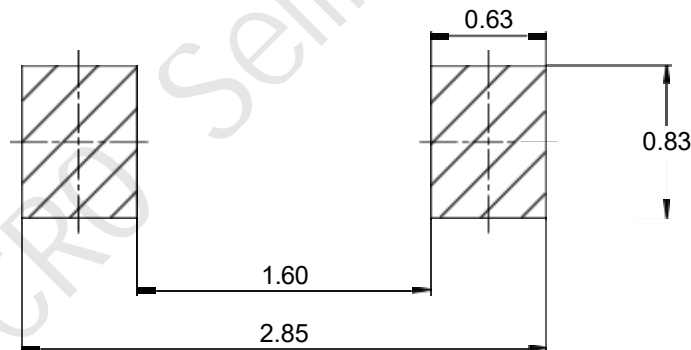


Fig. 6 Typical Temperature Coefficient of Zener Voltage

**PACKAGE OUTLINE** (Unit: mm)

Plastic surface mounted package


**MOUNTING PAD LAYOUT** (Unit: mm)

**PACKAGE INFORMATION**

Part Number	Package	Shipping Quantity
MM3Z2V0BW – MM3Z75BW	SOD-323	3000pcs / Tape & Reel