

# MM3Z2V0WAT THRU MM3Z75WAT

## SILICON PLANAR ZENER DIODES

Power Dissipation: 300mW

Zener Voltage: 2.0V to 75V

### FEATURES

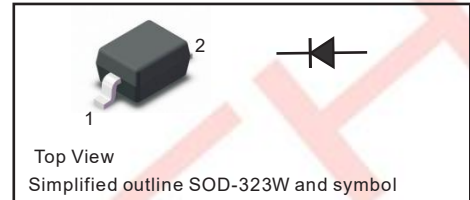
- ◆ Total power dissipation: Max. 300mW.
- ◆ Wide zener reverse voltage range 2.0V to 75V.
- ◆ Small plastic package suitable for surface mounted design.
- ◆ Tolerance approximately  $\pm 5\%$

### MECHANICAL DATA

- ◆ Case: SOD-323W
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026
- ◆ Approx. Weight: 5.48mg / 0.00019oz

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



### Absolute Maximum Ratings And Characteristics ( $T_a = 25^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Power Dissipation	$P_{\text{tot}}$	300	mW
Forward Voltage at $I_F = 10\text{ mA}$	$V_F$	0.9	V
Typical thermal resistance junction to ambient <sup>(1)</sup>	$R_{\theta JA}$	417	$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_j, T_{\text{stg}}$	-55 ~ +150	$^\circ\text{C}$

(1) Thermal resistance from junction to ambient at P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper areas pads.

Fig.1 Maximum Continuous Power Derating

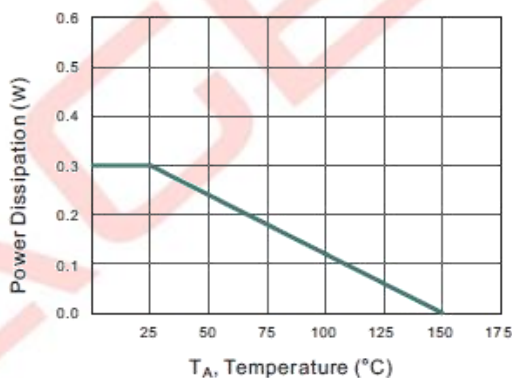
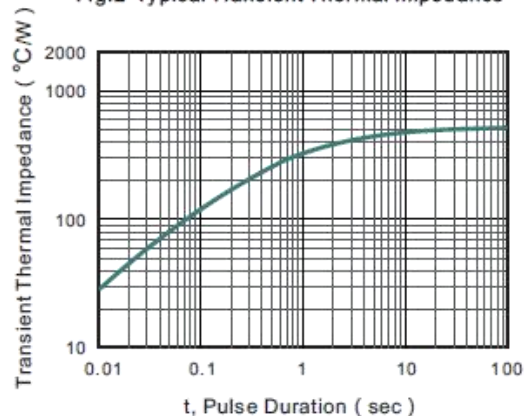


Fig.2 Typical Transient Thermal Impedance



# MM3Z2B0AT THRU MM3ZB75AT

## Characteristics at Ta = 25°C

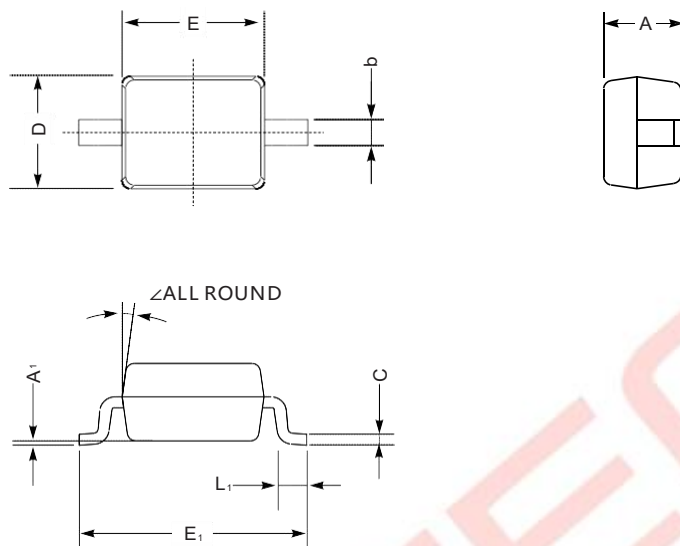
Type	Marking	Zener Voltage Range <sup>(1)</sup>			I <sub>ZT</sub>	Dynamic Impedance	Reverse Current	
		V <sub>ZT</sub> (at I <sub>ZT</sub> )					Z <sub>ZT</sub> (at I <sub>ZT</sub> )	I <sub>R</sub>
		Min (V)	Nom (V)	Max (V)	(mA)	Max (Ω)	Max (μA)	(V)
MM3Z2V0WAT	B0	1.8	2.0	2.15	5	100	120	0.5
MM3Z2V2WAT	C0	2.08	2.2	2.33	5	100	120	0.7
MM3Z2V4WAT	1C	2.28	2.4	2.56	5	100	120	1
MM3Z2V7WAT	1D	2.5	2.7	2.9	5	110	120	1
MM3Z3V0WAT	1E	2.8	3.0	3.2	5	120	50	1
MM3Z3V3WAT	1F	3.1	3.3	3.5	5	130	20	1
MM3Z3V6WAT	1H	3.4	3.6	3.8	5	130	10	1
MM3Z3V9WAT	1J	3.7	3.9	4.1	5	130	5	1
MM3Z4V3WAT	1K	4	4.3	4.6	5	130	5	1
MM3Z4V7WAT	1M	4.4	4.7	5	5	130	2	1
MM3Z5V1WAT	1N	4.8	5.1	5.4	5	130	2	1.5
MM3Z5V6WAT	1P	5.2	5.6	6	5	80	1	2.5
MM3Z6V2WAT	1R	5.8	6.2	6.6	5	50	1	3
MM3Z6V8WAT	1X	6.4	6.8	7.2	5	30	0.5	3.5
MM3Z7V5WAT	1Y	7	7.5	7.9	5	30	0.5	4
MM3Z8V2WAT	1Z	7.7	8.2	8.7	5	30	0.5	5
MM3Z9V1WAT	2A	8.5	9.1	9.6	5	30	0.5	6
MM3Z10WAT	2B	9.4	10	10.6	5	30	0.1	7
MM3Z11WAT	2C	10.4	11	11.6	5	30	0.1	8
MM3Z12WAT	2D	11.4	12	12.7	5	35	0.1	9
MM3Z13WAT	2E	12.4	13	14.1	5	35	0.1	10
MM3Z15WAT	2F	13.8	15	15.6	5	40	0.1	11
MM3Z16WAT	2H	15.3	16	17.1	5	40	0.1	12
MM3Z18WAT	2J	16.8	18	19.1	5	45	0.1	13
MM3Z20WAT	2K	18.8	20	21.2	5	50	0.1	15
MM3Z22WAT	2M	20.8	22	23.3	5	55	0.1	17
MM3Z24WAT	2N	22.8	24	25.6	5	60	0.1	19
MM3Z27WAT	2P	25.1	27	28.9	2	70	0.1	21
MM3Z30WAT	2R	28	30	32	2	80	0.1	23
MM3Z33WAT	2X	31	33	35	2	80	0.1	25
MM3Z36WAT	2Y	34	36	38	2	90	0.1	27
MM3Z39WAT	2Z	37	39	41	2	100	0.1	30
MM3Z43WAT	3A	40	43	46	2	130	0.1	33
MM3Z47WAT	3B	44	47	50	2	150	0.1	36
MM3Z51WAT	3C	48	51	54	2	180	0.1	39
MM3Z56WAT	3D	52	56	60	2	200	0.1	43
MM3Z62WAT	3E	58	62	66	2	215	0.1	47
MM3Z68WAT	3F	64	68	72	2	240	0.1	52
MM3Z75WAT	3H	70	75	79	2	265	0.1	56

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

# MM3Z2B0AT THRU MM3ZB75AT

## Package Outline

SOD-323W



SOD-323 mechanical data

UNIT		A	C	D	E	E <sub>1</sub>	b	L <sub>1</sub>	A <sub>1</sub>	∠
mm	max	1.1	0.15	1.4	1.8	2.75	0.4	0.45	0.2	9°
	min	0.8	0.08	1.2	1.4	2.55	0.25	0.2	—	
mil	max	43	5.9	55	70	108	16	16	8	
	min	32	3.1	47	63	100	9.8	7.9	—	

### The recommended mounting pad size

