

# MM1Z2B4~MM1ZB75

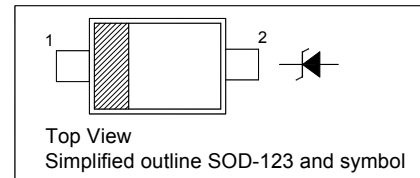
## SILICON PLANAR ZENER DIODES

### Features

- Power Dissipation: 500 mW
- Zener Voltage Tolerance:  $\pm 2\%$

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



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

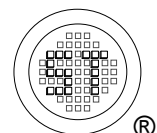
Parameter	Symbol	Value	Unit
Power Dissipation $T_L = 75^\circ\text{C}^{1)}$	$P_{\text{tot}}$	500	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{\text{stg}}$	- 55 to + 150	$^\circ\text{C}$

### Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient $^{2)}$	$R_{\theta\text{JA}}$	340	$^\circ\text{C/W}$
Thermal Resistance Junction to Lead $^{2)}$	$R_{\theta\text{JL}}$	150	$^\circ\text{C/W}$
Forward Voltage at $I_F = 10\text{ mA}$	$V_F$	0.9	V

<sup>1)</sup> FR-4 PCB = 89 \* 38 mm.

<sup>2)</sup> Mounted on an FR-4 PCB 38 \* 38 \* 1.6 mm with single-sided Cu pad areas 25mm<sup>2</sup>(>70  $\mu\text{m}$  thick).

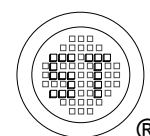


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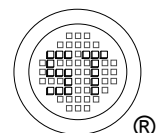
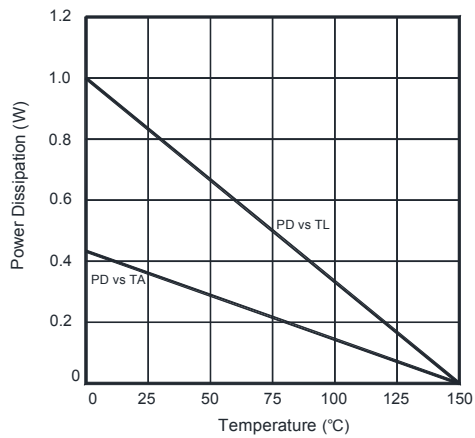
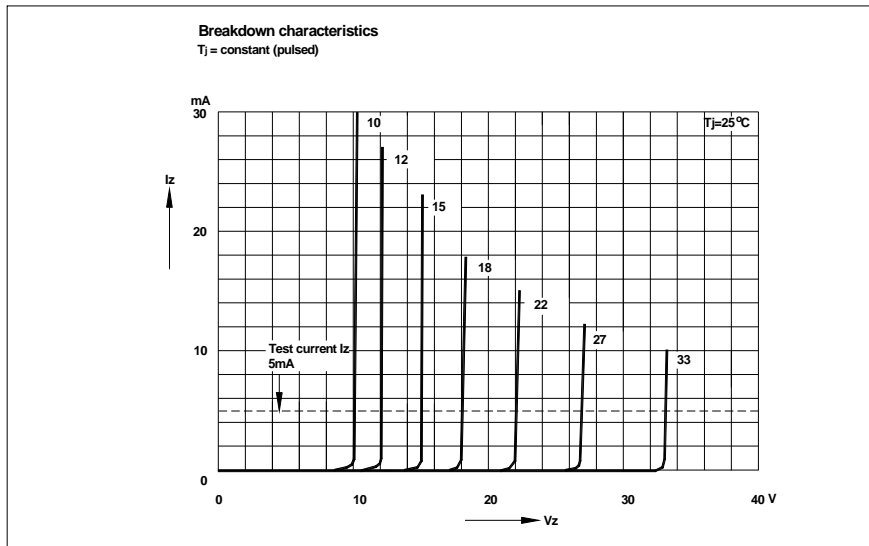
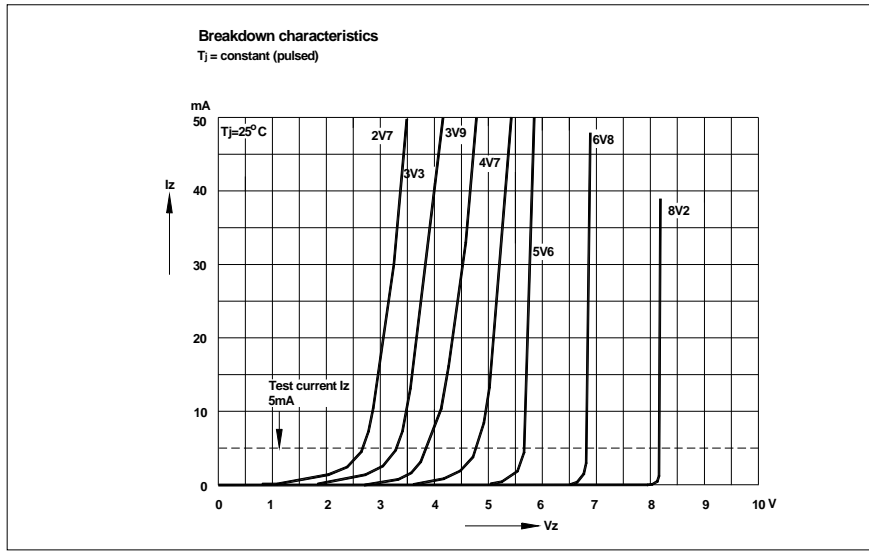
## Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Type	Marking Code	Zener Voltage Range <sup>1)</sup>			Dynamic Impedance		Reverse Leakage Current	
		$V_{znom}$	$V_{ZT}$	$I_{ZT}$	$Z_{ZT}(\text{Max.})$	at $I_Z$	$I_R(\text{Max.})$	at $V_R$
		V	V	mA	$\Omega$	mA	$\mu\text{A}$	V
MM1Z2B4	5Y1	2.4	2.352...2.448	5	100	5	120	1
MM1Z2B7	5Z1	2.7	2.646...2.754	5	110	5	120	1
MM1Z3B0	6A1	3	2.94...3.06	5	120	5	50	1
MM1Z3B3	6B1	3.3	3.234...3.366	5	130	5	20	1
MM1Z3B6	6C1	3.6	3.528...3.672	5	130	5	10	1
MM1Z3B9	6D1	3.9	3.822...3.978	5	130	5	5	1
MM1Z4B3	6E1	4.3	4.214...4.386	5	130	5	5	1
MM1Z4B7	6F1	4.7	4.606...4.794	5	130	5	2	1
MM1Z5B1	6G1	5.1	4.998...5.202	5	130	5	2	1.5
MM1Z5B6	6H1	5.6	5.488...5.712	5	80	5	1	2.5
MM1Z6B2	6J1	6.2	6.076...6.324	5	50	5	1	3
MM1Z6B8	6K1	6.8	6.664...6.936	5	30	5	0.5	3.5
MM1Z7B5	6L1	7.5	7.35...7.65	5	30	5	0.5	4
MM1Z8B2	6M1	8.2	8.036...8.364	5	30	5	0.5	5
MM1Z9B1	6N1	9.1	8.918...9.282	5	30	5	0.5	6
MM1ZB10	6P1	10	9.8...10.2	5	30	5	0.1	7
MM1ZB11	6Q1	11	10.78...11.22	5	30	5	0.1	8
MM1ZB12	6R1	12	11.76...12.24	5	35	5	0.1	9
MM1ZB13	6S1	13	12.74...13.26	5	35	5	0.1	10
MM1ZB15	6T1	15	14.7...15.3	5	40	5	0.1	11
MM1ZB16	6U1	16	15.68...16.32	5	40	5	0.1	12
MM1ZB18	6W1	18	17.64...18.36	5	45	5	0.1	13
MM1ZB20	6X1	20	19.6...20.4	5	50	5	0.1	15
MM1ZB22	6Y1	22	21.56...22.44	5	55	5	0.1	17
MM1ZB24	6Z1	24	23.52...24.48	5	60	5	0.1	19
MM1ZB27	7A1	27	26.46...27.54	5	70	2	0.1	21
MM1ZB30	7B1	30	29.4...30.6	5	80	2	0.1	23
MM1ZB33	7C1	33	32.34...33.66	5	80	2	0.1	25
MM1ZB36	7D1	36	35.28...36.72	5	90	2	0.1	27
MM1ZB39	7E1	39	38.22...39.78	2.5	100	2	2	30
MM1ZB43	7F1	43	42.14...43.86	2.5	130	2	2	33
MM1ZB47	7G1	47	46.06...47.94	2.5	150	2	2	36
MM1ZB51	7H1	51	49.98...52.02	2.5	180	2	1	39
MM1ZB56	7J1	56	54.88...57.12	2.5	180	2	1	43
MM1ZB62	7K1	62	60.76...63.24	2.5	200	2	0.2	47
MM1ZB68	7L1	68	66.64...69.36	2.5	250	2	0.2	52
MM1ZB75	7M1	75	73.5...76.5	2.5	300	2	0.2	57

<sup>1)</sup>  $V_Z$  is tested with pulses (20 ms).



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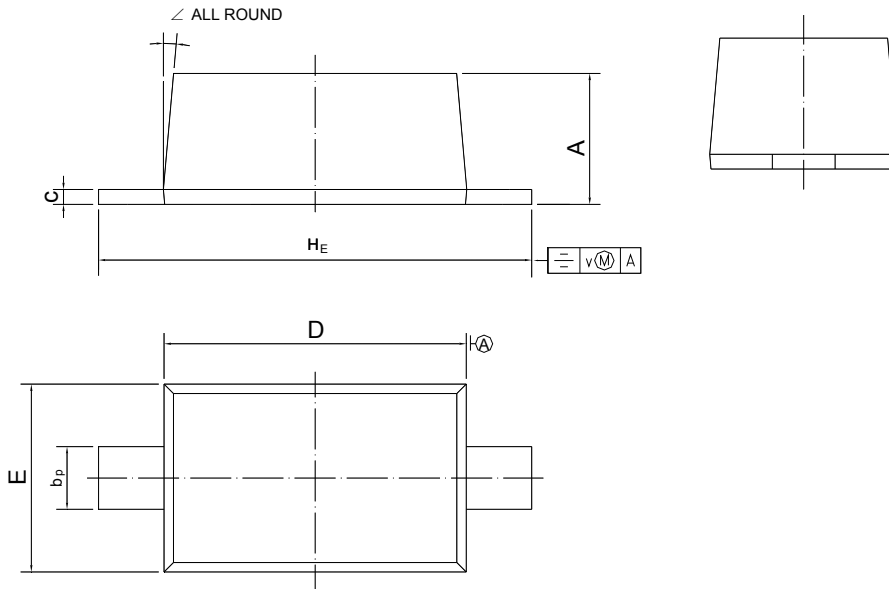


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## PACKAGE OUTLINE

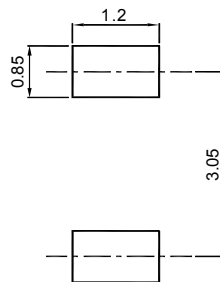
Plastic surface mounted package; 2 leads

SOD-123



UNIT	A	b <sub>p</sub>	c	D	E	H <sub>E</sub>	v	∠
mm	1.15 1.05	0.6 0.5	0.135 0.100	2.7 2.6	1.65 1.55	3.85 3.55	0.2	5°

### Recommended Soldering Footprint



### Packing information

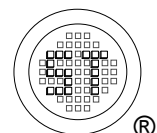
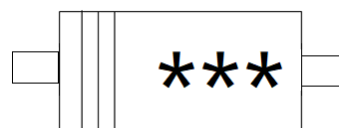
Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	(inch)	mm	(inch)	
SOD-123	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

### Marking information

"\*\*\*\*" = Part No

"III" = Cathode line

Font type: Arial



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