

# MM5Z2V2B~MM5Z39B

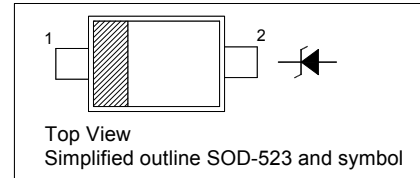
## Silicon Planar Zener Diodes

### Features

- Total power dissipation: max. 200 mW
- Small plastic package suitable for surface mounted design
- High reliability

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



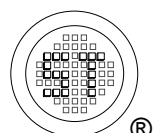
### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Power Dissipation	$P_{\text{tot}}$	200	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{\text{Stg}}$	- 55 to + 150	$^\circ\text{C}$

### Thermal Characteristics

Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient <sup>1)</sup>	$R_{\theta\text{JA}}$	625	$^\circ\text{C/W}$

<sup>1)</sup> Device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout.



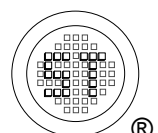
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Characteristics at  $T_a = 25^\circ\text{C}$  ( $V_F = 0.9\text{ V Max. at } I_F = 10\text{ mA}$ )

Type	Marking Code	Zener Voltage Range <sup>1)</sup>		Dynamic Impedance <sup>2)</sup>		Reverse Leakage Current	
		$I_{ZT}$	for $V_{ZT}$	$Z_{ZT}$ (Max.)	at $I_{ZT}$	$I_R$ (Max.)	at $V_R$
		mA	V	$\Omega$	mA	$\mu\text{A}$	V
MM5Z2V2B	RM	5	2.1...2.4	100	5	120	0.7
MM5Z2V4B	RN	5	2.3...2.65	100	5	120	1
MM5Z2V7B	RP	5	2.65...2.95	110	5	120	1
MM5Z3V0B	RR	5	2.95...3.25	120	5	50	1
MM5Z3V3B	RX	5	3.25...3.55	120	5	20	1
MM5Z3V6B	RY	5	3.6...3.845	100	5	10	1
MM5Z3V9B	JY	5	3.89...4.16	100	5	5	1
MM5Z4V3B	JZ	5	4.17...4.43	100	5	5	1
MM5Z4V7B	KA	5	4.55...4.75	100	5	2	1
MM5Z5V1B	KB	5	4.98...5.2	80	5	2	1.5
MM5Z5V6B	KC	5	5.49...5.73	60	5	1	2.5
MM5Z6V2B	KD	5	6.06...6.33	60	5	1	3
MM5Z6V8B	KE	5	6.65...6.93	40	5	0.5	3.5
MM5Z7V5B	KF	5	7.28...7.6	30	5	0.5	4
MM5Z8V2B	KH	5	8.02...8.36	30	5	0.5	5
MM5Z9V1B	KJ	5	8.85...9.23	30	5	0.5	6
MM5Z10B	KK	5	9.77...10.21	30	5	0.1	7
MM5Z11B	KM	5	10.76...11.22	30	5	0.1	8
MM5Z12B	KN	5	11.74...12.24	30	5	0.1	9
MM5Z13B	KP	5	12.91...13.49	37	5	0.1	10
MM5Z15B	KR	5	14.34...14.98	42	5	0.1	11
MM5Z16B	KX	5	15.85...16.51	50	5	0.1	12
MM5Z18B	KY	5	17.56...18.35	65	5	0.1	13
MM5Z20B	KZ	5	19.52...20.39	85	5	0.1	15
MM5Z22B	RZ	5	21.54...22.47	100	5	0.1	17
MM5Z24B	XA	5	23.72...24.78	120	5	0.1	19
MM5Z27B	XB	5	26.19...27.53	150	5	0.1	21
MM5Z30B	XC	5	29.19...30.69	200	5	0.1	23
MM5Z33B	XD	5	32.15...33.79	250	5	0.1	25
MM5Z36B	XE	5	35.07...36.87	300	5	0.1	27
MM5Z39B	XF	5	37...41	100	5	2	30

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

<sup>2)</sup>  $Z_{ZT}$  is measured at  $I_Z$  by given a very small A.C. current signal.



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## Electrical Characteristics Curves

Fig 1. Forward Characteristics Curve

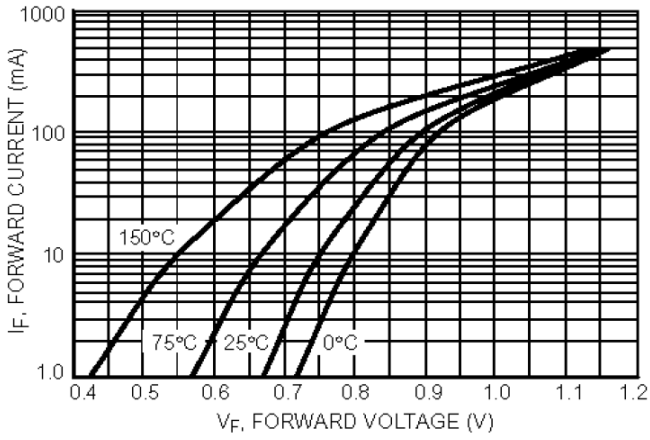


Fig 2. Zener Characteristics Curve

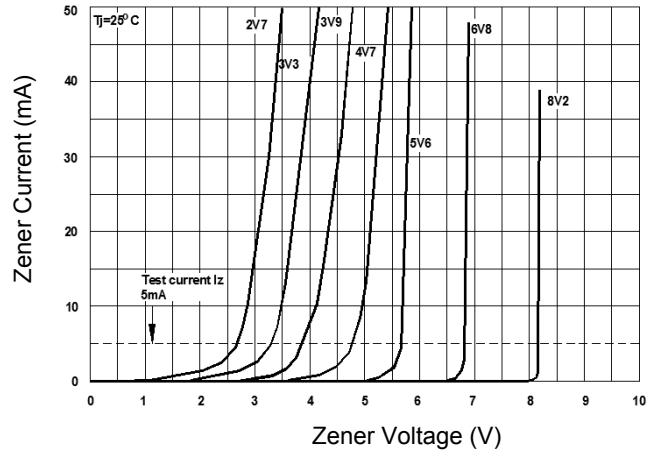


Fig 3. Zener Characteristics Curve

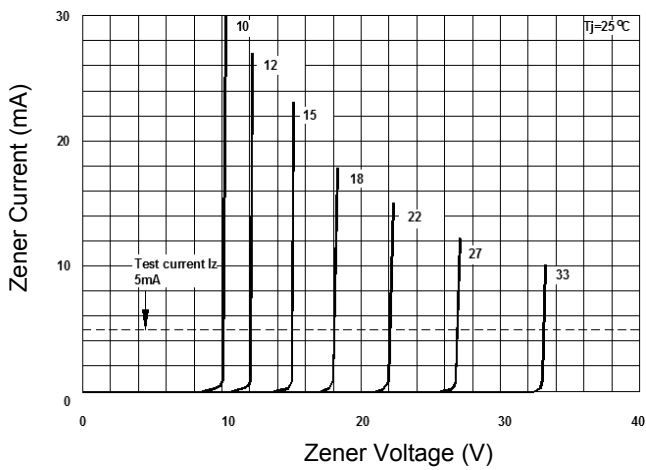
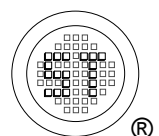
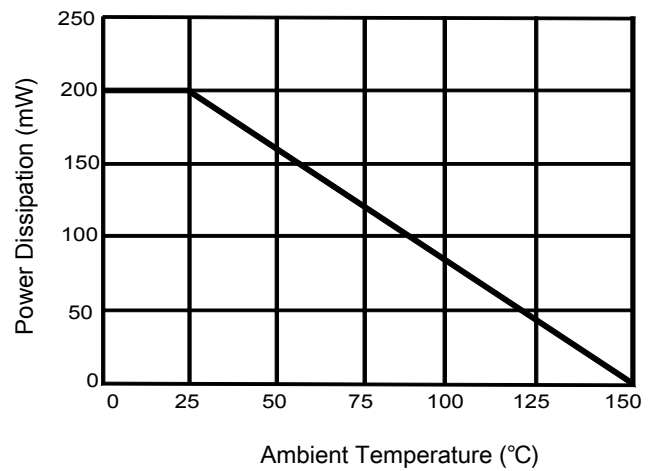


Fig 4. Power Derating Curve

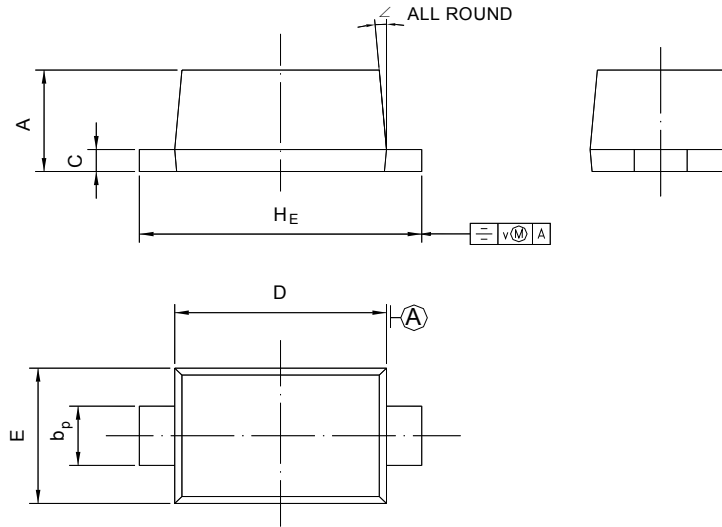


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## PACKAGE OUTLINE

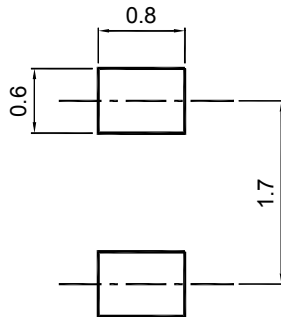
Plastic surface mounted package; 2 leads

SOD-523



UNIT	A	b <sub>P</sub>	C	D	E	H <sub>E</sub>	V	∠
mm	0.70 0.60	0.4 0.3	0.135 0.100	1.25 1.15	0.85 0.75	1.7 1.5	0.1	5°

## Recommended Soldering Footprint



## Packing information

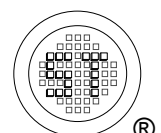
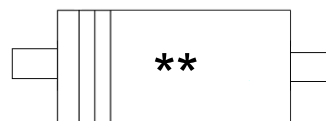
Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOD-523	8	4 ± 0.1	0.157 ± 0.004	178	7	4,000

## Marking information

" \*\* " = Part No

" III " = Cathode line

Font type: Arial



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