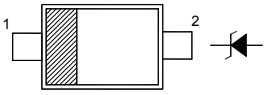
MM3Z2V2B~MM3Z39B Silicon Planar Zener Diodes

Features

- Total power dissipation : max. 300 mW
- Small plastic package suitable for surface mounted design
- High reliability

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View
Simplified outline SOD-323 and symbol

Description

Silicon planar Zener diode in a small plastic SMD SOD-323 package

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Power Dissipation	P_{tot}	300	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	- 55 to + 150	°C

Characteristics at T_a = 25 °C

Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient Air	R_{thA}	417	°C/W
Forward Voltage at I_F = 10 mA	V_F	0.9	V

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Characteristics at T_a = 25 °C

Type	Marking Code	Zener Voltage Range [1]			Dynamic Impedance		Reverse Leakage Current	
		V_{znom}	I_{ZT} for	V_{ZT}	Z_{ZT} (Max.)	at I_{ZT}	I_R (Max.)	at V_R
		V	mA	V	Ω	mA	μA	V
MM3Z2V2B	MF	2.2	5	2.1...2.4	100	5	120	0.7
MM3Z2V4B	7C	2.4	5	2.3…2.65	100	5	120	1
MM3Z2V7B	7D	2.7	5	2.65…2.95	110	5	120	1
MM3Z3V0B	7E	3.0	5	2.95…3.25	120	5	50	1
MM3Z3V3B	7F	3.3	5	3.25…3.55	120	5	20	1
MM3Z3V6B	7H	3.6	5	3.6…3.845	100	5	10	1
MM3Z3V9B	7J	3.9	5	3.89…4.16	100	5	5	1
MM3Z4V3B	7K	4.3	5	4.17…4.43	100	5	5	1
MM3Z4V7B	7M	4.7	5	4.55…4.75	100	5	2	1
MM3Z5V1B	7N	5.1	5	4.98…5.2	80	5	2	1.5
MM3Z5V6B	7P	5.6	5	5.49…5.73	60	5	1	2.5
MM3Z6V2B	7R	6.2	5	6.06…6.33	60	5	1	3
MM3Z6V8B	7X	6.8	5	6.65…6.93	40	5	0.5	3.5
MM3Z7V5B	7Y	7.5	5	7.28…7.6	30	5	0.5	4
MM3Z8V2B	7Z	8.2	5	8.02…8.36	30	5	0.5	5
MM3Z9V1B	8A	9.1	5	8.85…9.23	30	5	0.5	6
MM3Z10B	8B	10	5	9.77…10.21	30	5	0.1	7
MM3Z11B	8C	11	5	10.76…11.22	30	5	0.1	8
MM3Z12B	8D	12	5	11.74…12.24	30	5	0.1	9
MM3Z13B	8E	13	5	12.91…13.49	37	5	0.1	10
MM3Z15B	8F	15	5	14.34…14.98	42	5	0.1	11
MM3Z16B	8H	16	5	15.85…16.51	50	5	0.1	12
MM3Z18B	8J	18	5	17.56…18.35	65	5	0.1	13
MM3Z20B	8K	20	5	19.52…20.39	85	5	0.1	15
MM3Z22B	8M	22	5	21.54…22.47	100	5	0.1	17
MM3Z24B	8N	24	5	23.72…24.78	120	5	0.1	19
MM3Z27B	8P	27	5	26.19…27.53	150	5	0.1	21
MM3Z30B	8R	30	5	29.19…30.69	200	5	0.1	23
MM3Z33B	8X	33	5	32.15…33.79	250	5	0.1	25
MM3Z36B	8Y	36	5	35.07…36.87	300	5	0.1	27
MM3Z39B	8Z	39	5	37…41	100	5	2	30

[1] V_Z is tested with pulses (20 ms).

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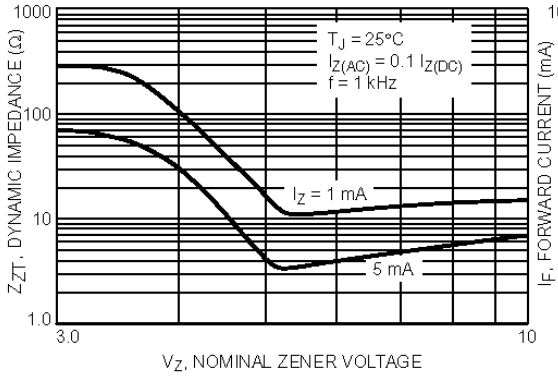
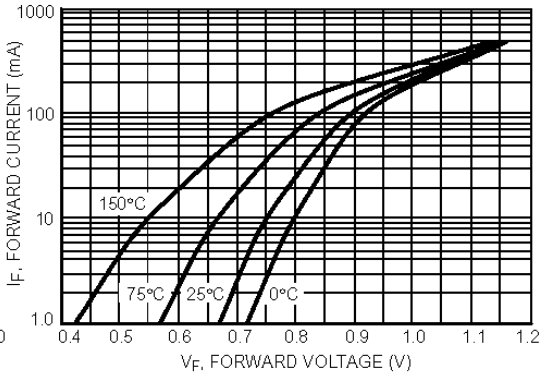
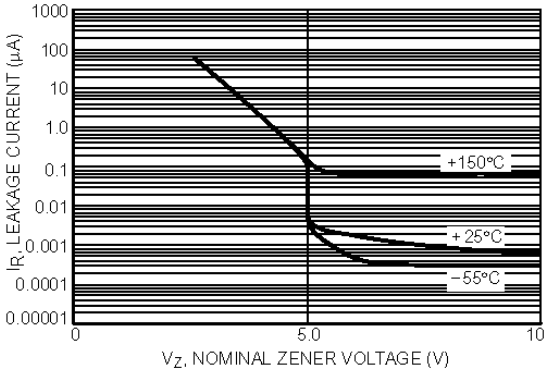


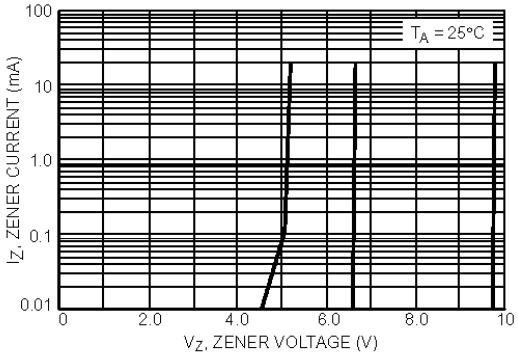
Effect of Zener Voltage on Zener Impedance



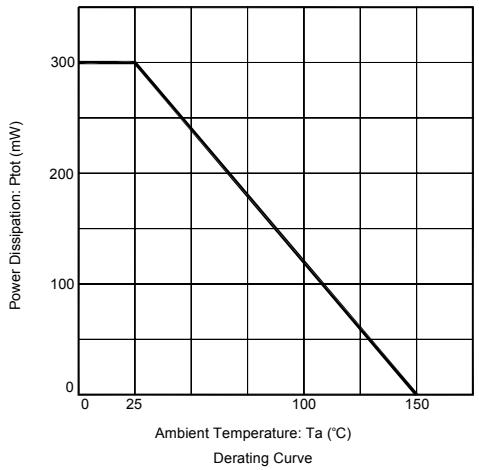
Typical Forward Voltage



Typical Leakage Current



Zener Voltage versus Zener Current (V_Z Up to 9 V)



Derating Curve

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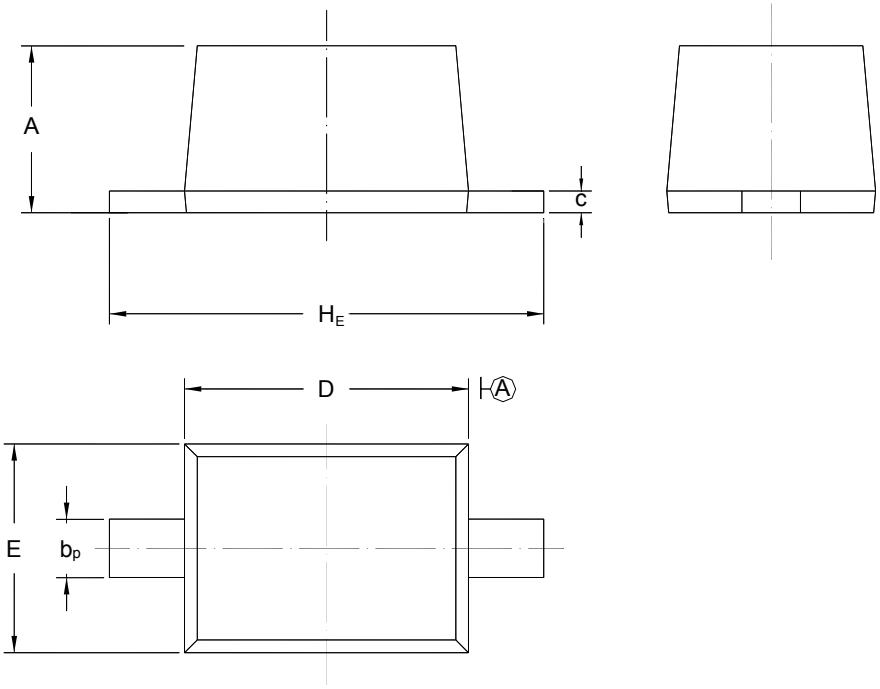
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads **SOD-323**



UNIT	A	b_p	C	D	E	H_E
mm	1.10 0.80	0.40 0.25	0.15 0.10	1.80 1.60	1.35 1.15	2.80 2.30