MM3Z2V2B~MM3Z39B

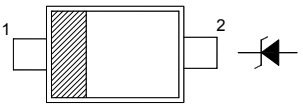
SILICON PLANAR ZENER DIODES

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_S	- 55 to + 150	°C

Characteristics at T_a = 25 °C

Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient Air	R_{thA}	625	°C/W
Forward Voltage at I_F = 10 mA	V_F	0.9	V

Type	Marking Code	Zener Voltage Range [1]			Dynamic Impedance [2]		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	2.08...2.33	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).
[2] Z_{ZT} is measured at I_Z by given a very small A.C. current signal.

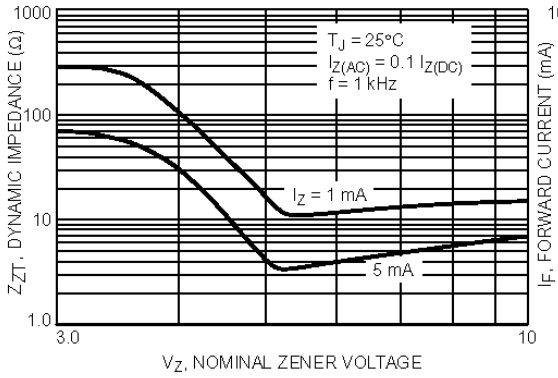


Figure 1. Effect of Zener Voltage on Zener Impedance

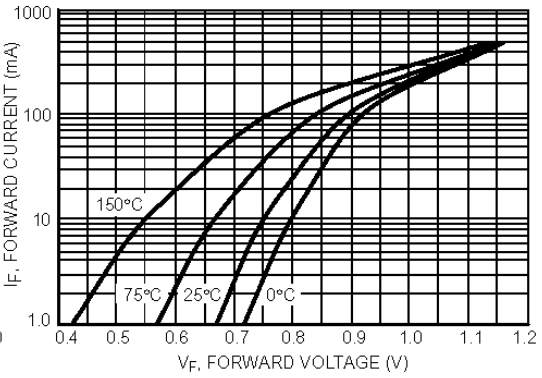


Figure 2. Typical Forward Voltage

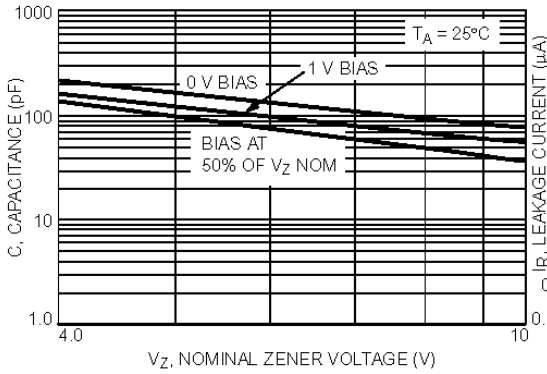


Figure 3. Typical Capacitance

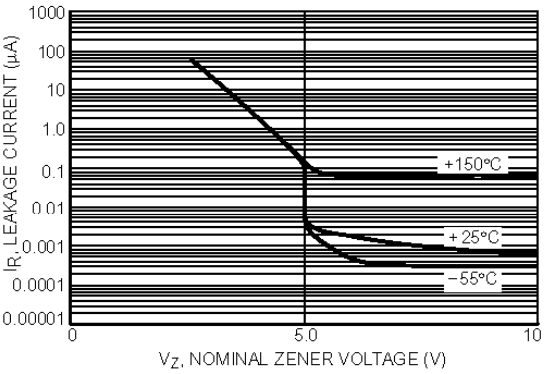


Figure 4. Typical Leakage Current

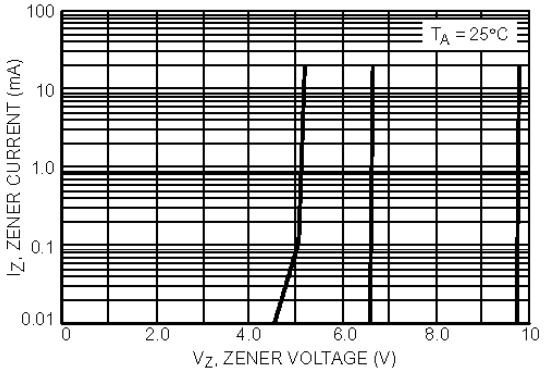
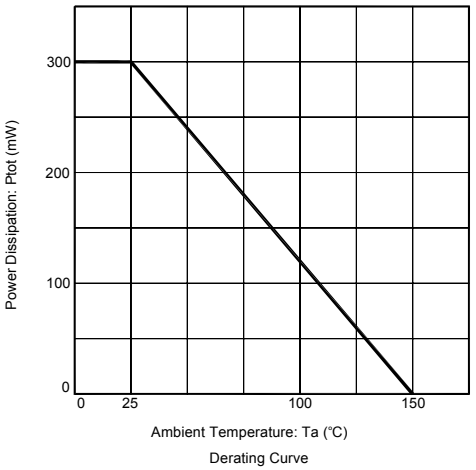


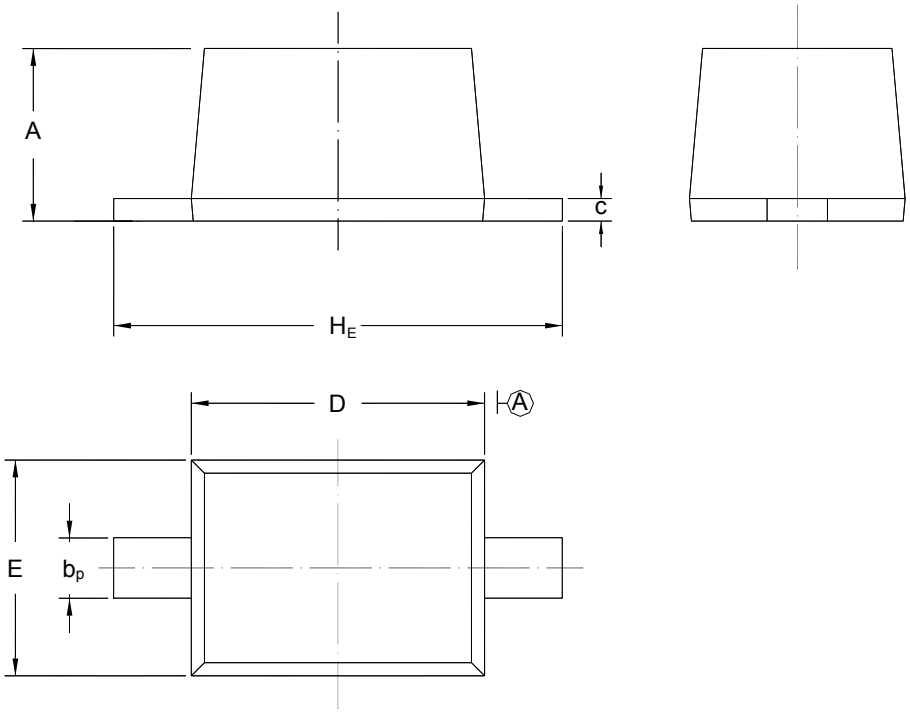
Figure 5. Zener Voltage versus Zener Current (V_Z Up to 9 V)



Derating Curve

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 0.00	1.80 1.60	1.35 1.15	2.80 2.30