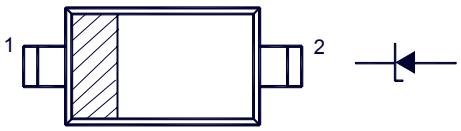
MM1Z2V0B~MM1Z39B

SILICON PLANAR ZENER DIODES
Silicon planar zener diode in a small plastic SMD SOD-123 package

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top view

Simplified outline SOD-123 and symbol

Features

- Total power dissipation: max.500 mW
- Small plastic package suitable for surface mounted design
- Wide variety of voltage ranges: nom.2.0 to 39V (E24 range)
- Tolerance approximately + / - 2%

Absolute Maximum Ratings (T_a = 25°C)

	Symbol	Value	Unit
Zener Current see Table "Characteristics"			
Power Dissipation	P_{tot}	500	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_S	-55 to +150	°C

Characteristics at T_{amb} = 25°C

	Symbol	Min.	Typ.	Max.	Unit
Thermal Resistance Junction to Ambient Air	R_{thA}	-	-	0.3	K/mW
Forward Voltage at I_F = 10mA	V_F	-	-	0.9	V

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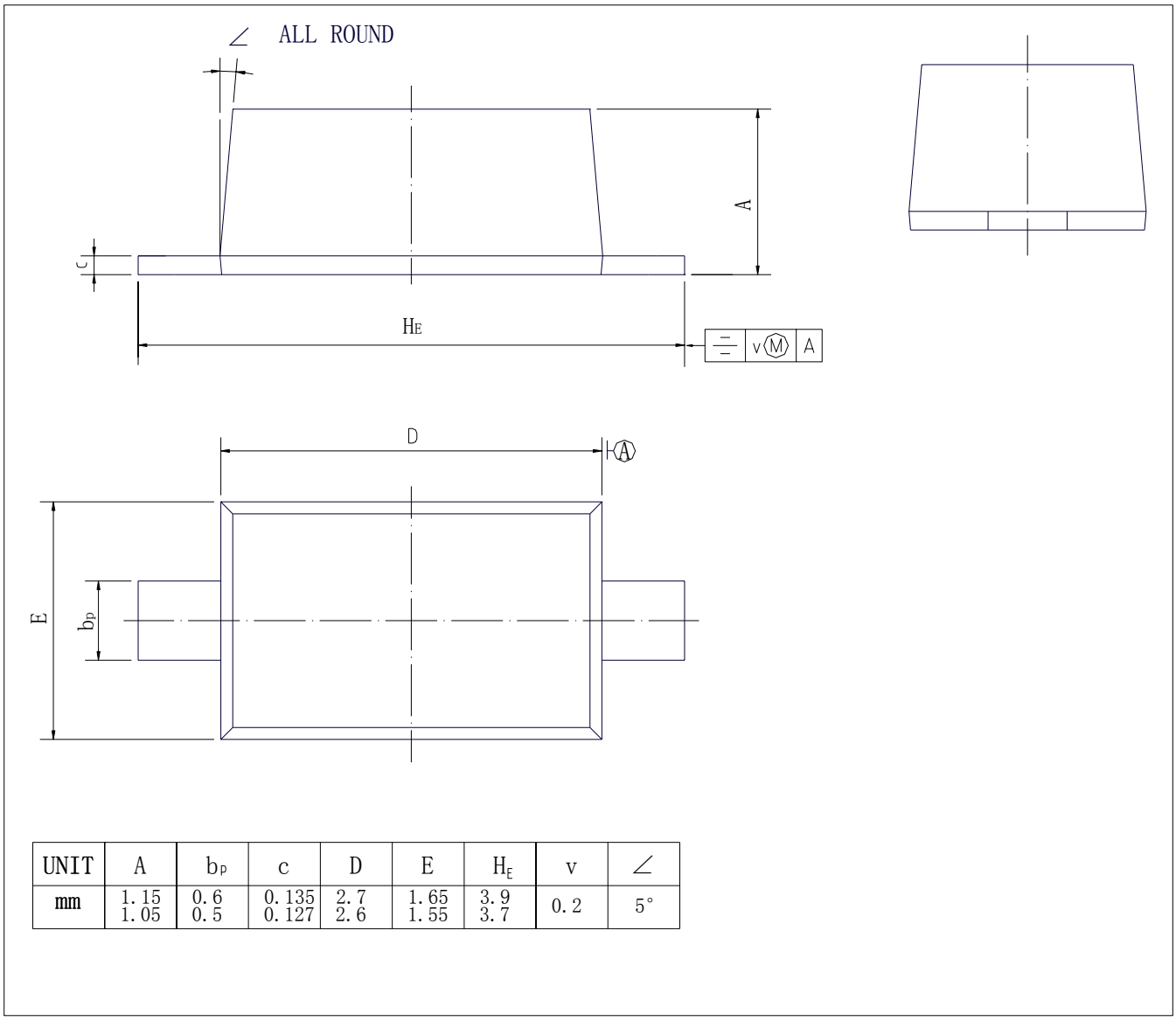
Type	Marking Code	Zener Voltage Range[1]			Dynamic Impedance[2]		Reverse Leakage Current		Temp. coefficient of Zener Voltage
		V_{znom}	I_{ZT} for	V_{ZT}	Z_Z (Max) at	I_Z	I_R (Max) at	V_R	TKvz
		V	mA	V	Ω	mA	μA	V	%/K
MM1Z 2V0B	9A	2.0	5	1.85...2.2	100	5	120	0.5	-0.09...-0.06
MM1Z 2V2B	9B	2.2	5	2.1…2.4	100	5	120	0.7	-0.09...-0.06
MM1Z 2V4B	9C	2.4	5	2.3…2.65	100	5	120	1.0	-0.09...-0.06
MM1Z 2V7B	9D	2.7	5	2.65…2.95	110	5	120	1.0	-0.09...-0.06
MM1Z 3V0B	9E	3.0	5	2.95…3.25	120	5	50	1.0	-0.08...-0.05
MM1Z 3V3B	9F	3.3	5	3.25…3.55	130	5	20	1.0	-0.08...-0.05
MM1Z 3V6B	9H	3.6	5	3.6…3.845	130	5	10	1.0	-0.08...-0.05
MM1Z 3V9B	9J	3.9	5	3.89…4.16	130	5	5	1.0	-0.08...-0.05
MM1Z 4V3B	9K	4.3	5	4.17…4.43	130	5	5	1.0	-0.06...-0.03
MM1Z 4V7B	9M	4.7	5	4.55…4.80	130	5	2	1.0	-0.05...+0.02
MM1Z 5V1B	9N	5.1	5	4.95…5.2	130	5	2	1.5	-0.02...+0.02
MM1Z 5V6B	9P	5.6	5	5.45…5.73	80	5	1	2.5	-0.05...+0.05
MM1Z 6V2B	9R	6.2	5	6.0…6.33	50	5	1	3.0	0.03...0.06
MM1Z 6V8B	9X	6.8	5	6.65…7.0	30	5	0.5	3.5	0.03...0.07
MM1Z 7V5B	9Y	7.5	5	7.28…7.7	30	5	0.5	4.0	0.03...0.07
MM1Z 8V2B	9Z	8.2	5	8.02…8.45	30	5	0.5	5.0	0.03...0.08
MM1Z 9V1B	0A	9.1	5	8.8…9.3	30	5	0.5	6.0	0.03...0.09
MM1Z 10B	0B	10	5	9.75…10.3	30	5	0.1	7.0	0.03...0.1
MM1Z 11B	0C	11	5	10.7…11.28	30	5	0.1	8.0	0.03...0.11
MM1Z 12B	0D	12	5	11.7…12.3	35	5	0.1	9.0	0.03...0.11
MM1Z 13B	0E	13	5	12.43…14	35	5	0.1	10	0.03...0.11
MM1Z 15B	0F	15	5	13.8…15.56	40	5	0.1	11	0.03...0.11
MM1Z 16B	0H	16	5	15.31…17.14	40	5	0.1	12	0.03...0.11
MM1Z 18B	0J	18	5	16.89…19.08	45	5	0.1	13	0.03...0.11
MM1Z 20B	0K	20	5	18.8…21.14	50	5	0.1	15	0.03...0.11
MM1Z 22B	0M	22	5	20.81…23.25	55	5	0.1	17	0.04...0.12
MM1Z 24B	0N	24	5	22.86…25.66	60	5	0.1	19	0.04...0.12
MM1Z 27B	0P	27	5	25.1…28.9	70	2	0.1	21	0.04...0.12
MM1Z 30B	0R	30	5	28…32	80	2	0.1	23	0.04...0.12
MM1Z 33B	0X	33	5	31…35	80	2	0.1	25	0.04...0.12
MM1Z 36B	0Y	36	5	34…38	90	2	0.1	27	0.04...0.12
MM1Z 39B	0Z	39	5	37…41	100	2	2	30	0.04...0.12

1) V_Z is tested with pulses(20 ms).
2) Z_Z is measured at I_Z by given a very small A.C. current signal.

PACKAGE OUTLINE

Plastic surface mounted package; 2 leads **SOD-123**



UNIT	A	b_p	c	D	E	H_E	v	∠
mm	1.15 1.05	0.6 0.5	0.135 0.127	2.7 2.6	1.65 1.55	3.9 3.7	0.2	5°