MM1Z5231C~MM1Z5262C

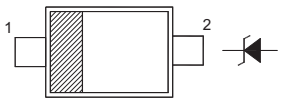
SILICON PLANAR ZENER DIODES

Features

- Total power dissipation: Max. 500 mW
- Small plastic package suitable for surface mounted design
- Zener Voltage Tolerance: ± 2%

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View
Simplified outline SOD-123 and symbol

Absolute Maximum Ratings (T_a = 25℃)

Parameter	Symbol	Value	Unit
Power Dissipation	P_{tot}	500	mW
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	- 55 to + 150	℃

Characteristics at T_a = 25℃

Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	350	℃/W
Forward Voltage at I_F = 10 mA	V_F	0.9	V

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Characteristics at T_a = 25℃

Type	Marking Code	Zener Voltage Range [1]				Dynamic Impedance				Reverse Current	
		V_{znom}	V_{ZT}		at I_{ZT}	Z_{ZT}	at I_{ZT}	Z_{ZK}	at I_{ZK}	I_R	at V_R
		V	Min. (V)	Max. (V)	mA	Max. (Ω)	mA	Max. (Ω)	mA	Max. (μA)	V
MM1Z5231C	YN	5.1	4.998	5.202	20	17	20	1600	0.25	5	2
MM1Z5232C	YO	5.6	5.488	5.712	20	11	20	1600	0.25	5	3
MM1Z5234C	YP	6.2	6.076	6.324	20	7	20	1000	0.25	5	4
MM1Z5235C	YQ	6.8	6.664	6.936	20	5	20	750	0.25	3	5
MM1Z5236C	YR	7.5	7.35	7.65	20	6	20	500	0.25	3	6
MM1Z5237C	YS	8.2	8.036	8.364	20	8	20	500	0.25	3	6.5
MM1Z5239C	YT	9.1	8.918	9.282	20	10	20	600	0.25	3	7
MM1Z5240C	YU	10	9.8	10.2	20	17	20	600	0.25	3	8
MM1Z5241C	YV	11	10.78	11.22	20	22	20	600	0.25	2	8.4
MM1Z5242C	YW	12	11.76	12.24	20	30	20	600	0.25	1	9.1
MM1Z5243C	YX	13	12.74	13.26	9.5	13	9.5	600	0.25	0.5	9.9
MM1Z5245C	YY	15	14.7	15.3	8.5	16	8.5	600	0.25	0.1	11
MM1Z5246C	YZ	16	15.68	16.32	7.8	17	7.8	600	0.25	0.1	12
MM1Z5247C	G5	17	16.66	17.34	7.5	19	7.5	600	0.25	0.1	13
MM1Z5248C	ZA	18	17.64	18.36	7	21	7	600	0.25	0.1	14
MM1Z5250C	ZB	20	19.6	20.4	6.2	25	6.2	600	0.25	0.1	15
MM1Z5251C	ZC	22	21.56	22.44	5.6	29	5.6	600	0.25	0.1	17
MM1Z5252C	ZD	24	23.52	24.48	5.2	33	5.2	600	0.25	0.1	18
MM1Z5254C	ZE	27	26.46	27.54	4.6	41	4.6	600	0.25	0.1	21
MM1Z5256C	ZF	30	29.4	30.6	4.2	49	4.2	600	0.25	0.1	23
MM1Z5257C	ZG	33	32.34	33.66	3.8	58	3.8	700	0.25	0.1	25
MM1Z5258C	ZH	36	35.28	36.72	3.4	70	3.4	700	0.25	0.1	27
MM1Z5259C	ZI	39	38.22	39.78	3.2	80	3.2	800	0.25	0.1	30
MM1Z5260C	ZJ	43	42.14	43.86	3	93	3	900	0.25	0.1	33
MM1Z5261C	ZK	47	46.06	47.94	2.7	105	2.7	1000	0.25	0.1	36
MM1Z5262C	A6	51	49.98	52.02	2.5	125	2.5	1100	0.25	0.1	39

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

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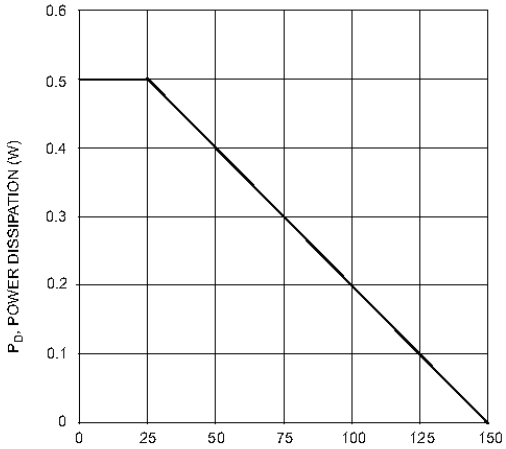

Fig. 1 Power Dissipation vs Ambient Temperature

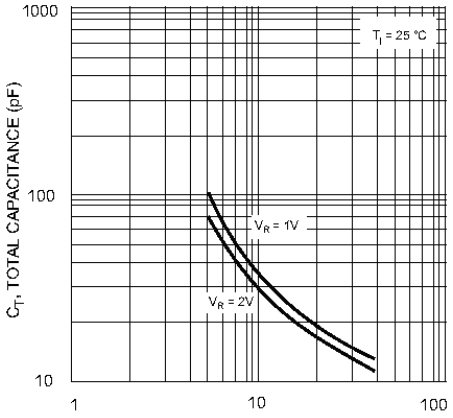

Fig. 2 Total Capacitance vs Nominal Zener Voltage

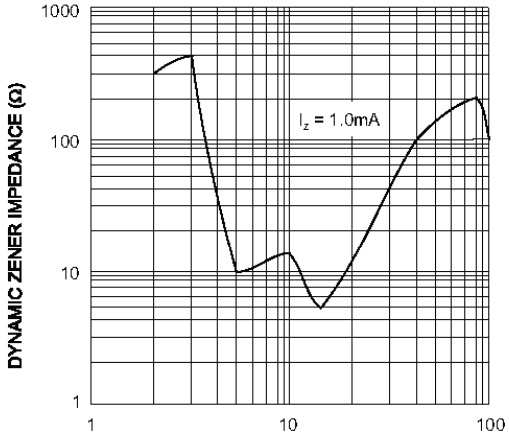

Fig. 3 Zener Voltage vs. Zener Impedence

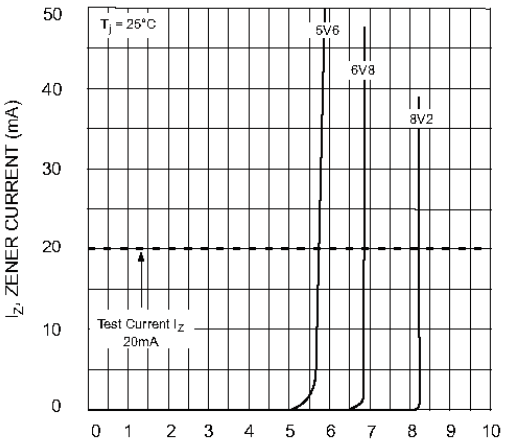

Fig. 4 Zener Breakdown Characteristics

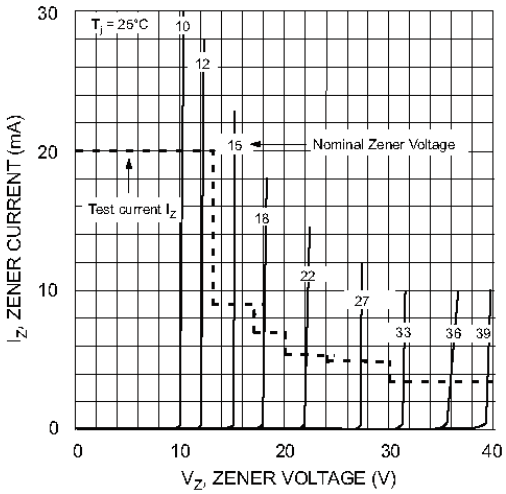

Fig. 5 Zener Breakdown Characteristics

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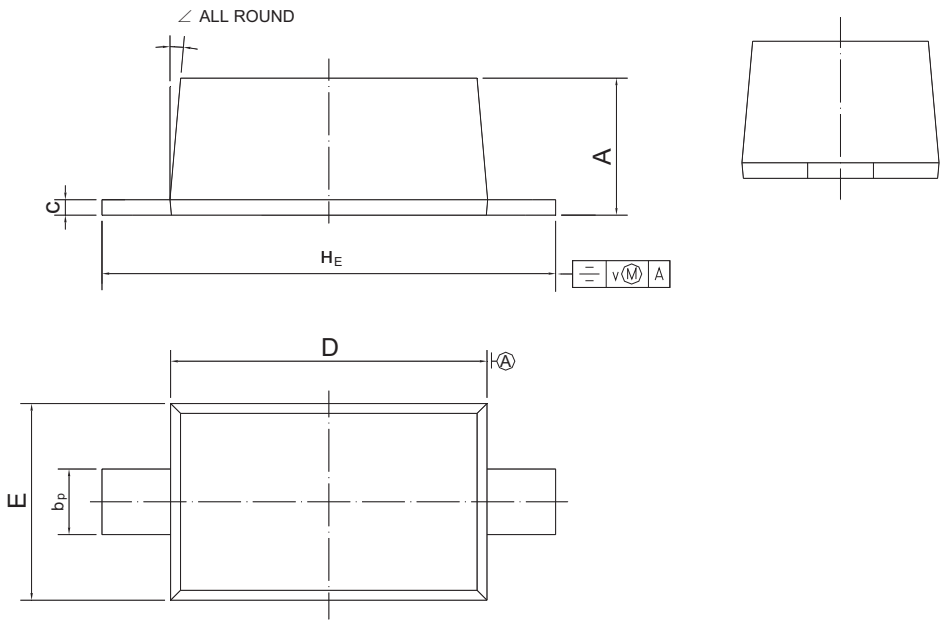
PACKAGE OUTLINE

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 0.100	2.7 2.6	1.65 1.55	3.85 3.55	0.2	5°