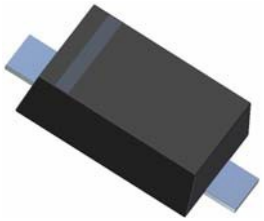
MM1Z5221 THRU MM1Z5267

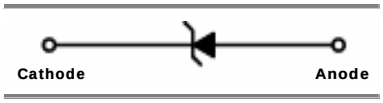
500 mW
Silicon Planar Zener Diodes

RoHS compliant

Standard zener voltage tolerance is ± 20%. Add suffix "A" for ± 2% tolerance, suffix "B" for ± 5% tolerance and suffix "C" for ± 10% tolerance. Other tolerance, non standard and higher zener voltages are upon request.



SOD-123 Flat Lead



ELECTRICAL SYMBOL

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

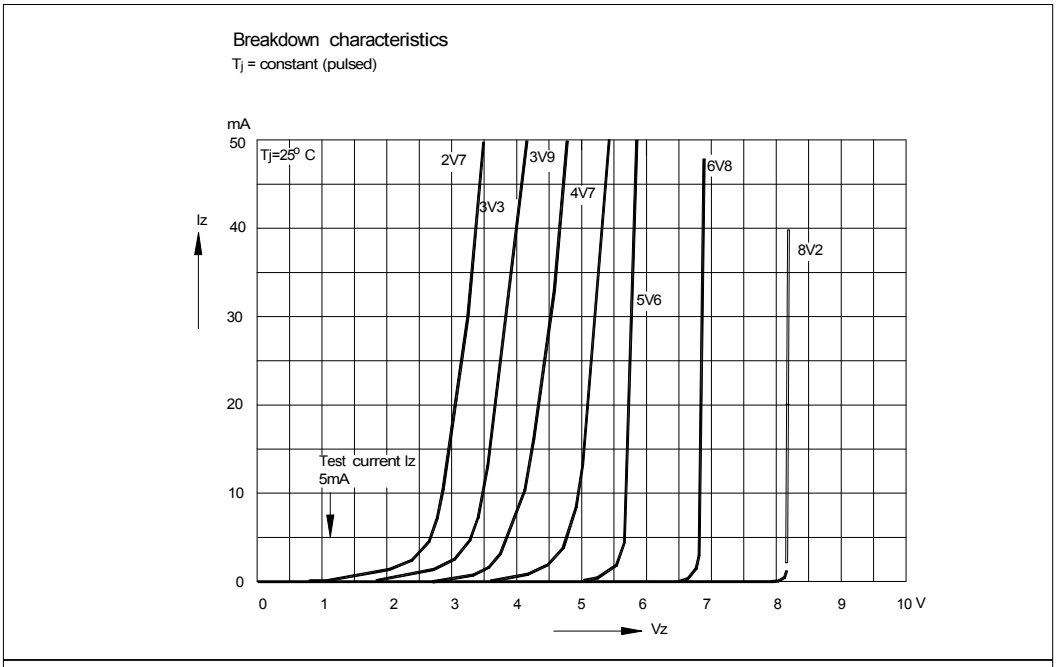
	Symbol	Min.	Typ.	Max.	Unit
Thermal Resistance Junction to Ambient Air	R_{thA}	-	-	0.3	K/mW
Forward Voltage at I_F = 10mA	V_F	-	-	0.9	V

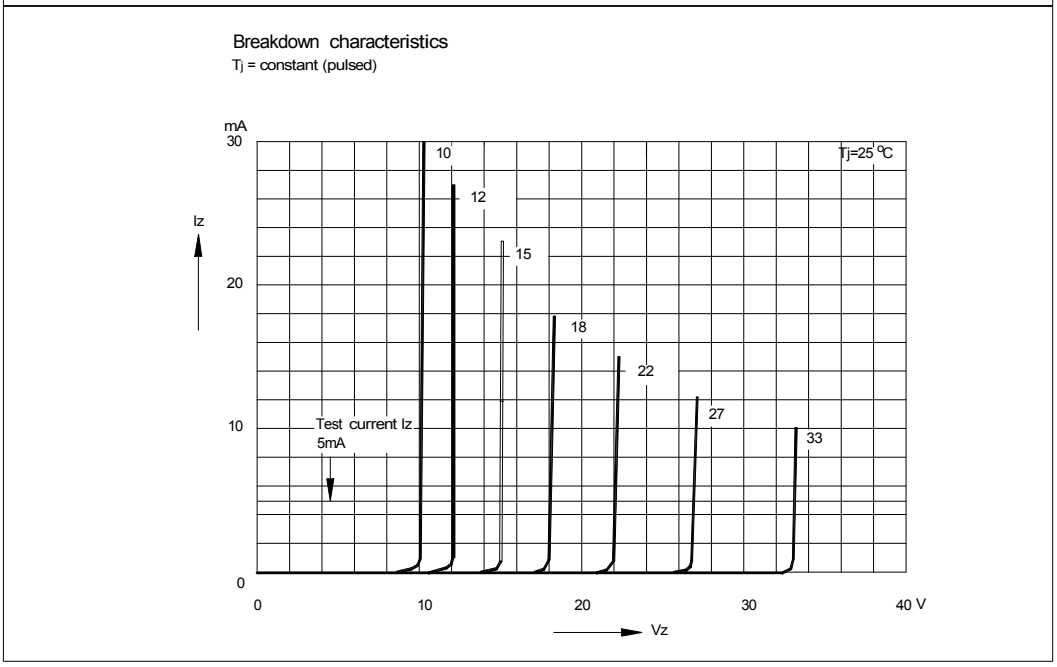
Characteristics at T_a = 25 °C

Type	Marking Code	Zener Voltage Range [1]			Dynamic Impedance [2]			Reverse Current	
		V_{znom} V	I_{ZT} for mA	V_{ZT} V	Z_{ZT} Ω (Max.)	Z_{ZK} Ω (Max.)	at I_{ZK} mA	I_R μA (Max.)	at V_R V
MM1Z5221A	A4	2.4	20	2.352 ~ 2.448	30	1200	0.25	100	1
MM1Z5223A	B4	2.7	20	2.646 ~ 2.754	30	1300	0.25	75	1
MM1Z5225A	C4	3.0	20	2.94 ~ 3.06	29	1600	0.25	50	1
MM1Z5226A	D4	3.3	20	3.234 ~ 3.366	28	1600	0.25	25	1
MM1Z5227A	E4	3.6	20	3.528 ~ 3.672	24	1700	0.25	15	1
MM1Z5228A	F4	3.9	20	3.822 ~ 3.978	23	1900	0.25	10	1
MM1Z5229A	H4	4.3	20	4.214 ~ 4.386	22	2000	0.25	5	1
MM1Z5230A	J4	4.7	20	4.606 ~ 4.794	19	1900	0.25	5	2
MM1Z5231A	K4	5.1	20	4.998 ~ 5.202	17	1600	0.25	5	2
MM1Z5232A	M4	5.6	20	5.488 ~ 5.712	11	1600	0.25	5	3
MM1Z5234A	N4	6.2	20	6.076 ~ 6.324	7	1000	0.25	5	4
MM1Z5235A	P4	6.8	20	6.664 ~ 6.936	5	750	0.25	3	5
MM1Z5236A	R4	7.5	20	7.35 ~ 7.65	6	500	0.25	3	6
MM1Z5237A	X4	8.2	20	8.036 ~ 8.364	8	500	0.25	3	6.5
MM1Z5239A	Y4	9.1	20	8.918 ~ 9.282	10	600	0.25	3	7
MM1Z5240A	Z4	10	20	9.8 ~ 10.2	17	600	0.25	3	8
MM1Z5241A	A5	11	20	10.78 ~ 11.22	22	600	0.25	2	8.4
MM1Z5242A	B5	12	20	11.76 ~ 12.24	30	600	0.25	1	9.1
MM1Z5243A	C5	13	9.5	12.74 ~ 13.26	13	600	0.25	0.5	9.9
MM1Z5245A	D5	15	8.5	14.7 ~ 15.3	16	600	0.25	0.1	11
MM1Z5246A	E5	16	7.8	15.68 ~ 16.32	17	600	0.25	0.1	12
MM1Z5248A	F5	18	7	17.64 ~ 18.36	21	600	0.25	0.1	14
MM1Z5249A	K9	19	6.6	18.62 ~ 19.38	23	600	0.25	0.1	14
MM1Z5250A	H5	20	6.2	19.6 ~ 20.4	25	600	0.25	0.1	15
MM1Z5251A	J5	22	5.6	21.56 ~ 22.44	29	600	0.25	0.1	17
MM1Z5252A	K5	24	5.2	23.52 ~ 24.48	33	600	0.25	0.1	18
MM1Z5253A	M9	25	5	24.5 ~ 25.5	35	600	0.25	0.1	19
MM1Z5254A	M5	27	4.6	26.46 ~ 27.54	41	600	0.25	0.1	21
MM1Z5256A	N5	30	4.2	29.4 ~ 30.6	49	600	0.25	0.1	23
MM1Z5257A	P5	33	3.8	32.34 ~ 33.66	58	700	0.25	0.1	25
MM1Z5258A	R5	36	3.4	35.28 ~ 36.72	70	700	0.25	0.1	27
MM1Z5259A	X5	39	3.2	38.22 ~ 39.78	80	800	0.25	0.1	30
MM1Z5260A	Y5	43	3	42.14 ~ 43.86	93	900	0.25	0.1	33
MM1Z5261A	Z5	47	2.7	46.06 ~ 47.94	105	1000	0.25	0.1	36
MM1Z5263A	51VZ	51	2.5	49.98 ~ 52.02	125	1100	0.25	0.1	39
MM1Z5264A	56VZ	56	2.2	54.88 ~ 57.12	150	1300	0.25	0.1	43
MM1Z5265A	62VZ	62	2	60.76 ~ 63.24	185	1400	0.25	0.1	47
MM1Z5266A	68VZ	68	1.8	66.64 ~ 69.36	230	1600	0.25	0.1	52
MM1Z5267A	75VZ	75	1.7	73.5 ~ 76.5	270	1700	0.25	0.1	56

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

[2] Z_{ZT} and Z_{ZK} are measured by dividing the AC voltage drop across the device by the AC current applied. The specified limits are for $I_{Z(AC)}$ = 0.1 $I_{Z(DC)}$ with the AC frequency = 1 KHz.

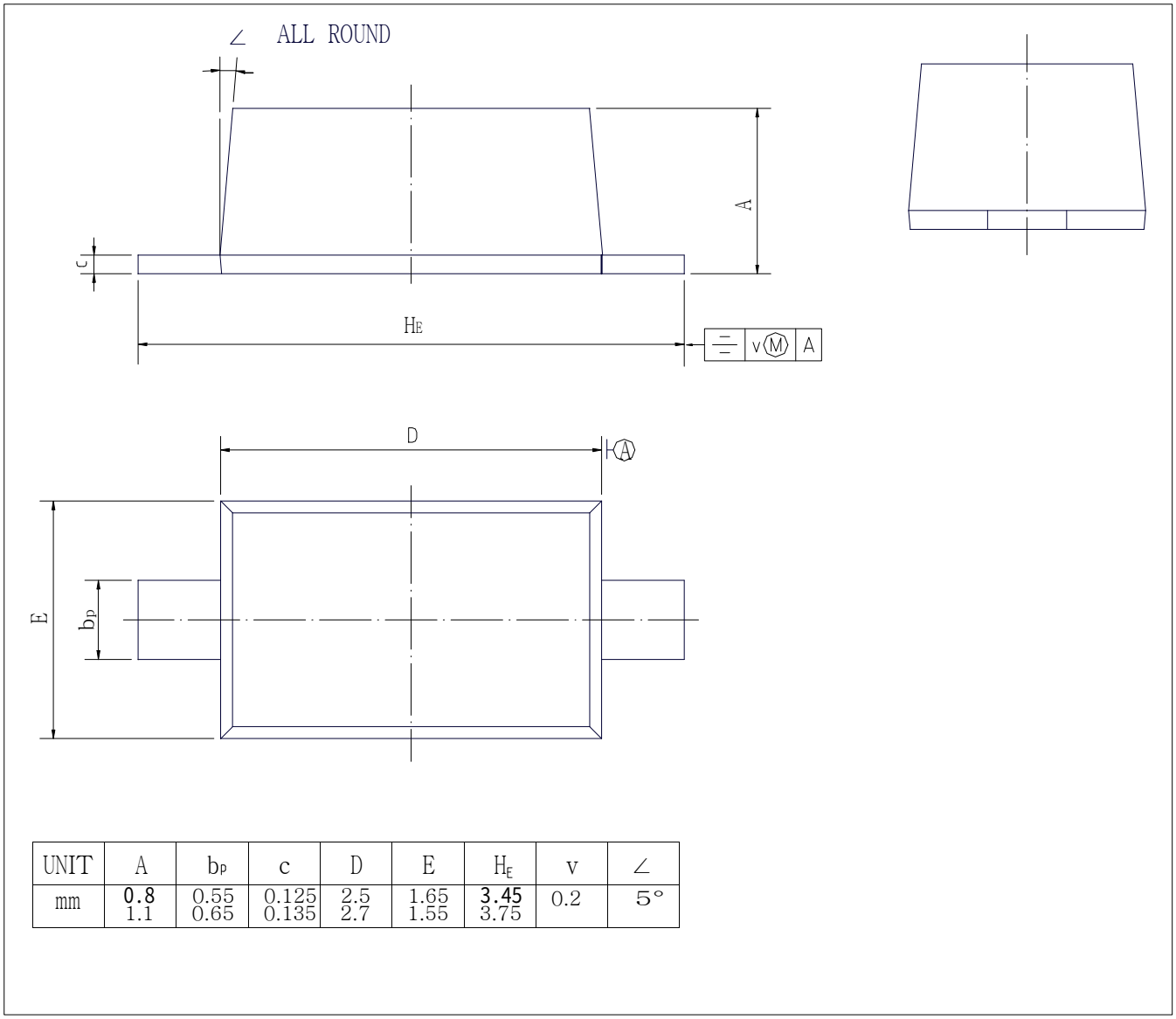

Breakdown characteristics
Tj = constant (pulsed)
mA
50
40
30
20
10
0
Iz
Tj=25° C
2V7
3V3
3V9
4V7
5V6
6V8
8V2
Test current Iz
5mA
0
1
2
3
4
5
6
7
8
9
10 V
Vz


Breakdown characteristics
Tj = constant (pulsed)
mA
30
20
10
0
Iz
Tj=25 °C
10
12
15
18
22
27
33
Test current Iz
5mA
0
10
20
30
40 V
Vz

PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123FL



UNIT	A	b_p	c	D	E	H_E	v	∠
mm	0.8 1.1	0.55 0.65	0.125 0.135	2.5 2.7	1.65 1.55	3.45 3.75	0.2	5°

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