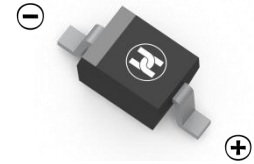
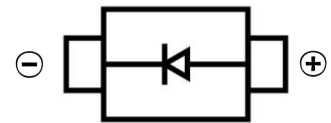


Silicon Planar Zener Diodes
FEATURES

- Total power dissipation : max. 300 mW
- Small plastic package suitable for surface mounted design
- Tolerance approximately $\pm 5\%$


SOD-323
MECHANICAL DATA

- Case: SOD-323
- Case Material: Molded Plastic. UL flammability
- Classification Rating: 94V-0
- Weight: 0.005 grams (approximate)


Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

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

Characteristics at $T_a = 25\text{ }^\circ\text{C}$

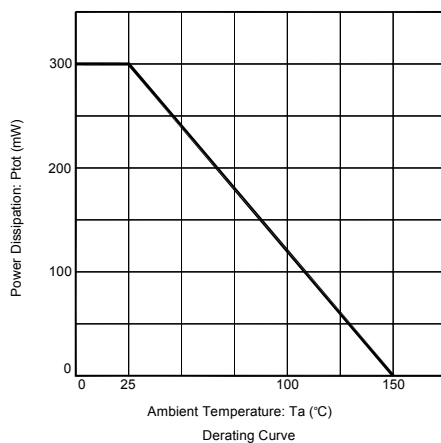
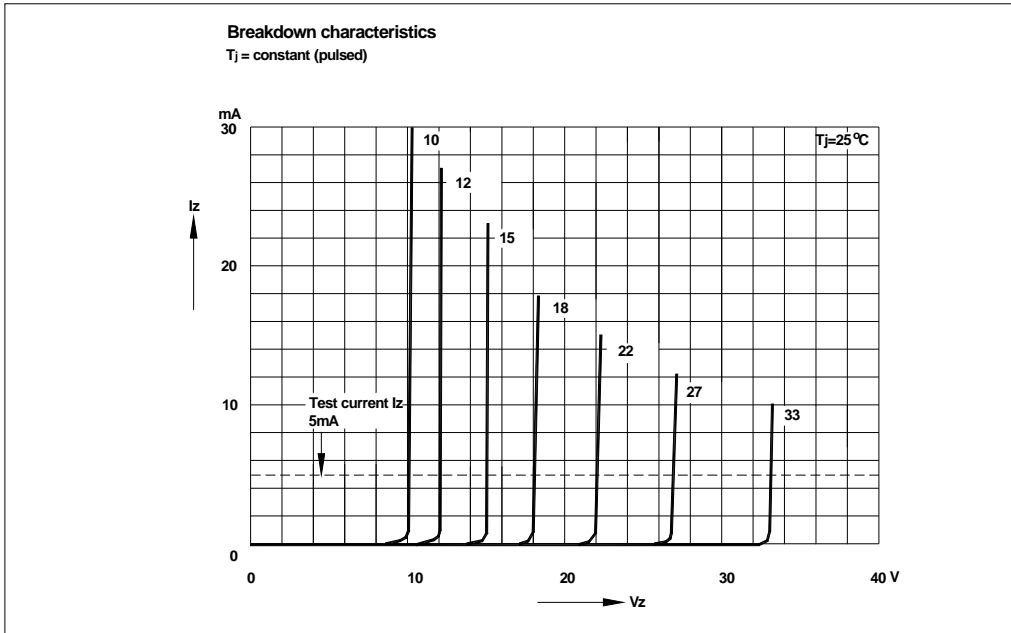
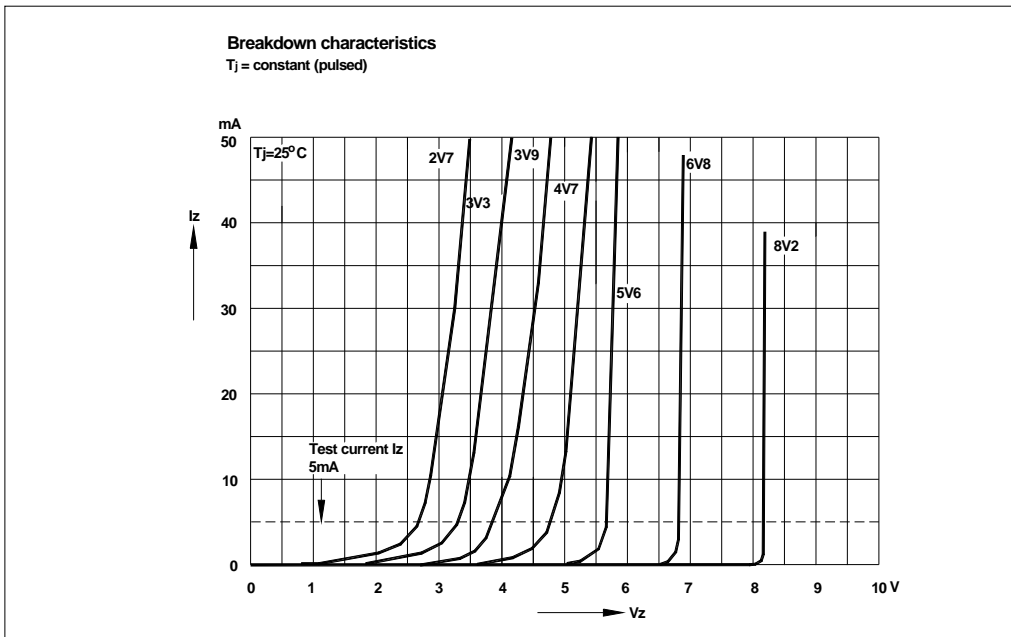
Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	417	$^\circ\text{C/W}$
Forward Voltage at $I_F = 10\text{ mA}$	V_F	0.9	V

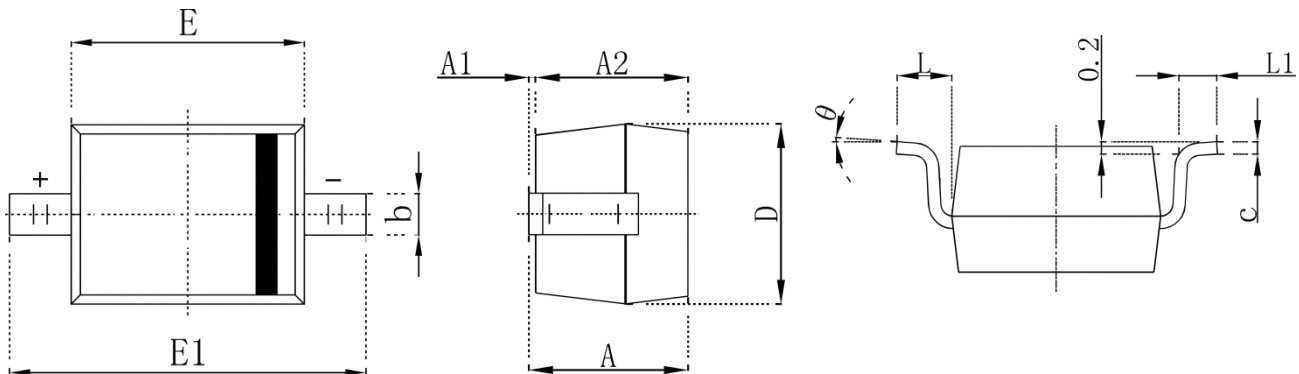
Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Type	Marking Code	Zener Voltage Range ¹⁾			Dynamic Impedance		Reverse Leakage Current	
		V_{znom}	V_{ZT}	at I_{ZT}	Z_{ZT}	at I_{ZT}	I_R	at V_R
		(V)	(V)	(mA)	Max. (Ω)	(mA)	Max. (μA)	(V)
MM3Z2V0	B0	2.0	1.8...2.15	5	100	5	120	0.5
MM3Z2V2	C0	2.2	2.08...2.33	5	100	5	120	0.7
MM3Z2V4	1C	2.4	2.28...2.56	5	100	5	120	1
MM3Z2V7	1D	2.7	2.5...2.9	5	110	5	120	1
MM3Z3V0	1E	3.0	2.8...3.2	5	120	5	50	1
MM3Z3V3	1F	3.3	3.1...3.5	5	130	5	20	1
MM3Z3V6	1H	3.6	3.4...3.8	5	130	5	10	1
MM3Z3V9	1J	3.9	3.7...4.1	5	130	5	5	1
MM3Z4V3	1K	4.3	4...4.6	5	130	5	5	1
MM3Z4V7	1M	4.7	4.4...5	5	130	5	2	1
MM3Z5V1	1N	5.1	4.8...5.4	5	130	5	2	1.5
MM3Z5V6	1P	5.6	5.2...6	5	80	5	1	2.5
MM3Z6V2	1R	6.2	5.8...6.6	5	50	5	1	3
MM3Z6V8	1X	6.8	6.4...7.2	5	30	5	0.5	3.5
MM3Z7V5	1Y	7.5	7...7.9	5	30	5	0.5	4
MM3Z8V2	1Z	8.2	7.7...8.7	5	30	5	0.5	5
MM3Z9V1	2A	9.1	8.5...9.6	5	30	5	0.5	6
MM3Z10	2B	10	9.4...10.6	5	30	5	0.1	7
MM3Z11	2C	11	10.4...11.6	5	30	5	0.1	8
MM3Z12	2D	12	11.4...12.7	5	35	5	0.1	9
MM3Z13	2E	13	12.4...14.1	5	35	5	0.1	10
MM3Z15	2F	15	13.8...15.6	5	40	5	0.1	11
MM3Z16	2H	16	15.3...17.1	5	40	5	0.1	12
MM3Z18	2J	18	16.8...19.1	5	45	5	0.1	13
MM3Z20	2K	20	18.8...21.2	5	50	5	0.1	15
MM3Z22	2M	22	20.8...23.3	5	55	5	0.1	17
MM3Z24	2N	24	22.8...25.6	5	60	5	0.1	19
MM3Z27	2P	27	25.1...28.9	2	70	2	0.1	21
MM3Z30	2R	30	28...32	2	80	2	0.1	23
MM3Z33	2X	33	31...35	2	80	2	0.1	25
MM3Z36	2Y	36	34...38	2	90	2	0.1	27
MM3Z39	2Z	39	37...41	2	100	2	0.1	30
MM3Z43	3A	43	40...46	2	130	2	0.1	33
MM3Z47	3B	47	44...50	2	150	2	0.1	36
MM3Z51	3C	51	48...54	2	180	2	0.1	39
MM3Z56	3D	56	52...60	2	200	2	0.1	43
MM3Z62	3E	62	58...66	2	215	2	0.1	47
MM3Z68	3F	68	64...72	2	240	2	0.1	52
MM3Z75	3H	75	70...79	2	265	2	0.1	56

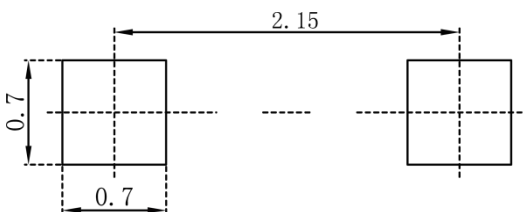
¹⁾ V_{ZT} is tested with pulses (20 ms).

Typical Characteristics



SOD-323 Package Outline Dimensions


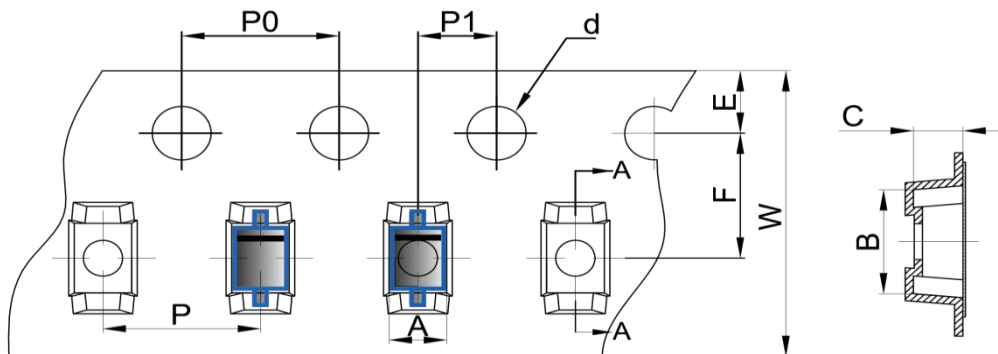
Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A		1.000		0.039
A1	0.000	0.100	0.000	0.004
A2	0.800	0.900	0.031	0.035
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	1.200	1.400	0.047	0.055
E	1.600	1.800	0.063	0.071
E1	2.250	2.750	0.100	0.108
L	0.475 REF		0.019 REF	
L1	0.250	0.400	0.010	0.016
θ	0°	8°	0°	8°

SOD-323 Suggested Pad Layout

Note:

1. Controlling dimension: in millimeters
2. General tolerance: $\pm 0.05\text{mm}$
3. The pad layout is for reference purposes only

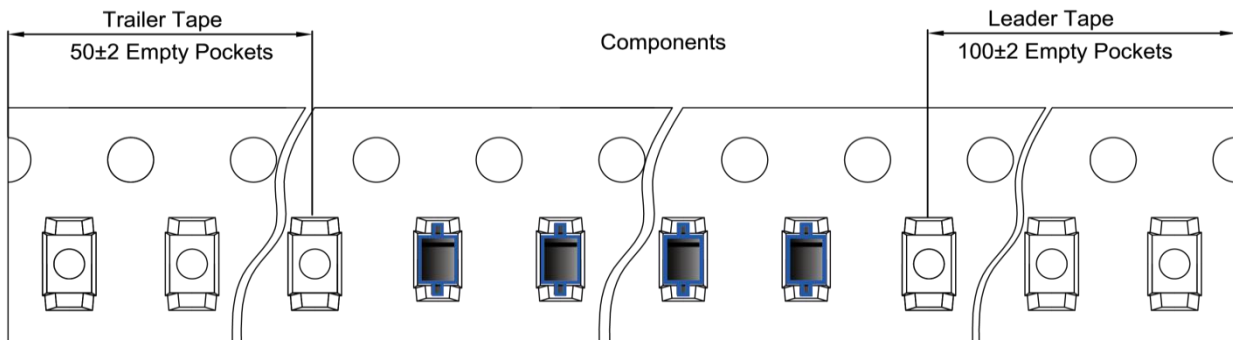
SOD-323 Tape and Reel

SOD-323 Embossed Carrier Tape

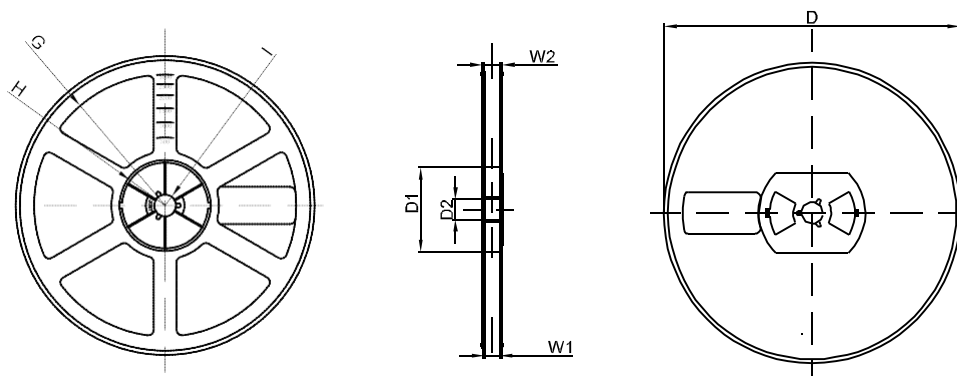


DIMENSIONS ARE IN MILLIMETER										
TYPE	A	B	C	d	E	F	P0	P	P1	W
SOD-323	1.48	3.3	1.25	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00
TOLERANCE	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1

SOD-323 Tape Leader and Trailer



SOD-323 Reel



DIMENSIONS ARE IN MILLIMETER								
REEL OPTION	D	D1	D2	G	H	I	W1	W2
7" DIA	Ø178	54.40	13.00	R78	R25.60	R6.50	9.50	12.30
TOLERANCE	±2	±1	±1	±1	±1	±1	±1	±1