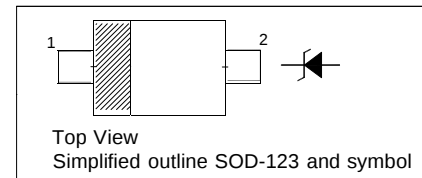


**Silicon Planar Zener Diodes****Features**

- Total power dissipation: max. 500 mW
- Small plastic package suitable for surface mounted design
- Tolerance approximately $\pm 5\%$

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

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

Parameter	Symbol	Value	Unit
Power Dissipation	P_{tot}	500	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_{thA}	340	$^{\circ}\text{C/W}$
Forward Voltage at $I_F = 10\text{ mA}$	V_F	0.9	V



Silicon Planar Zener Diodes

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

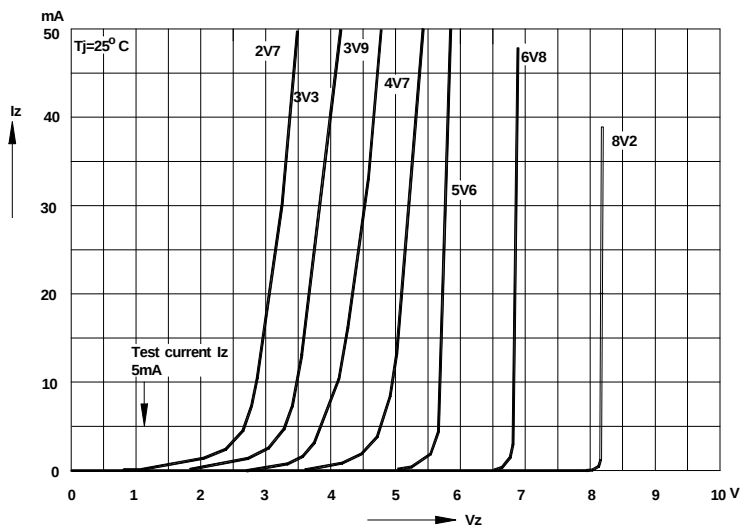
Type	Marking Code	Zener Voltage Range ¹⁾			Dynamic Impedance ²⁾		Reverse Leakage Current	
		V_{znom} V	I_{ZT} mA	for V_{ZT} V	Z_{ZT} (Max.) Ω	at I_Z mA	I_R (Max.) μA	at V_R V
MM1Z2V0	4A	2.0	5	1.8...2.15	100	5	120	0.5
MM1Z2V2	4B	2.2	5	2.08...2.33	100	5	120	0.7
MM1Z2V4	4C	2.4	5	2.28...2.56	100	5	120	1
MM1Z2V7	4D	2.7	5	2.5...2.9	110	5	120	1
MM1Z3V0	4E	3.0	5	2.8...3.2	120	5	50	1
MM1Z3V3	4F	3.3	5	3.1...3.5	130	5	20	1
MM1Z3V6	4H	3.6	5	3.4...3.8	130	5	10	1
MM1Z3V9	4J	3.9	5	3.7...4.1	130	5	5	1
MM1Z4V3	4K	4.3	5	4...4.6	130	5	5	1
MM1Z4V7	4M	4.7	5	4.4...5	130	5	2	1
MM1Z5V1	4N	5.1	5	4.8...5.4	130	5	2	1.5
MM1Z5V6	4P	5.6	5	5.2...6	80	5	1	2.5
MM1Z6V2	4R	6.2	5	5.8...6.6	50	5	1	3
MM1Z6V8	4X	6.8	5	6.4...7.2	30	5	0.5	3.5
MM1Z7V5	4Y	7.5	5	7...7.9	30	5	0.5	4
MM1Z8V2	4Z	8.2	5	7.7...8.7	30	5	0.5	5
MM1Z9V1	5A	9.1	5	8.5...9.6	30	5	0.5	6
MM1Z10	5B	10	5	9.4...10.6	30	5	0.1	7
MM1Z11	5C	11	5	10.4...11.6	30	5	0.1	8
MM1Z12	5D	12	5	11.4...12.7	35	5	0.1	9
MM1Z13	5E	13	5	12.4...14.1	35	5	0.1	10
MM1Z15	5F	15	5	13.8...15.6	40	5	0.1	11
MM1Z16	5H	16	5	15.3...17.1	40	5	0.1	12
MM1Z18	5J	18	5	16.8...19.1	45	5	0.1	13
MM1Z20	5K	20	5	18.8...21.2	50	5	0.1	15
MM1Z22	5M	22	5	20.8...23.3	55	5	0.1	17
MM1Z24	5N	24	5	22.8...25.6	60	5	0.1	19
MM1Z27	5P	27	5	25.1...28.9	70	2	0.1	21
MM1Z30	5R	30	5	28...32	80	2	0.1	23
MM1Z33	5X	33	5	31...35	80	2	0.1	25
MM1Z36	5Y	36	5	34...38	90	2	0.1	27
MM1Z39	5Z	39	2.5	37...41	100	2	2	30
MM1Z43	6A	43	2.5	40...46	130	2	2	33
MM1Z47	6B	47	2.5	44...50	150	2	2	36
MM1Z51	6C	51	2.5	48...54	180	2	1	39
MM1Z56	6D	56	2.5	52...60	180	2	1	43
MM1Z62	6E	62	2.5	58...66	200	2	0.2	47
MM1Z68	6F	68	2.5	64...72	250	2	0.2	52
MM1Z75	6H	75	2.5	70...79	300	2	0.2	57

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.

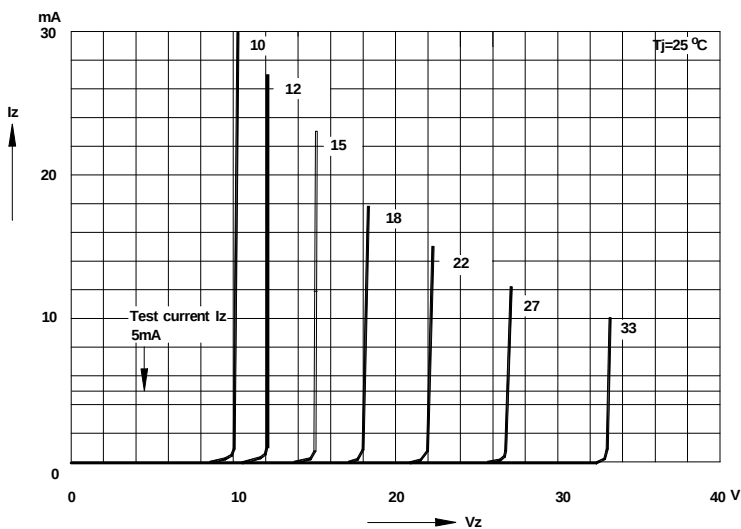


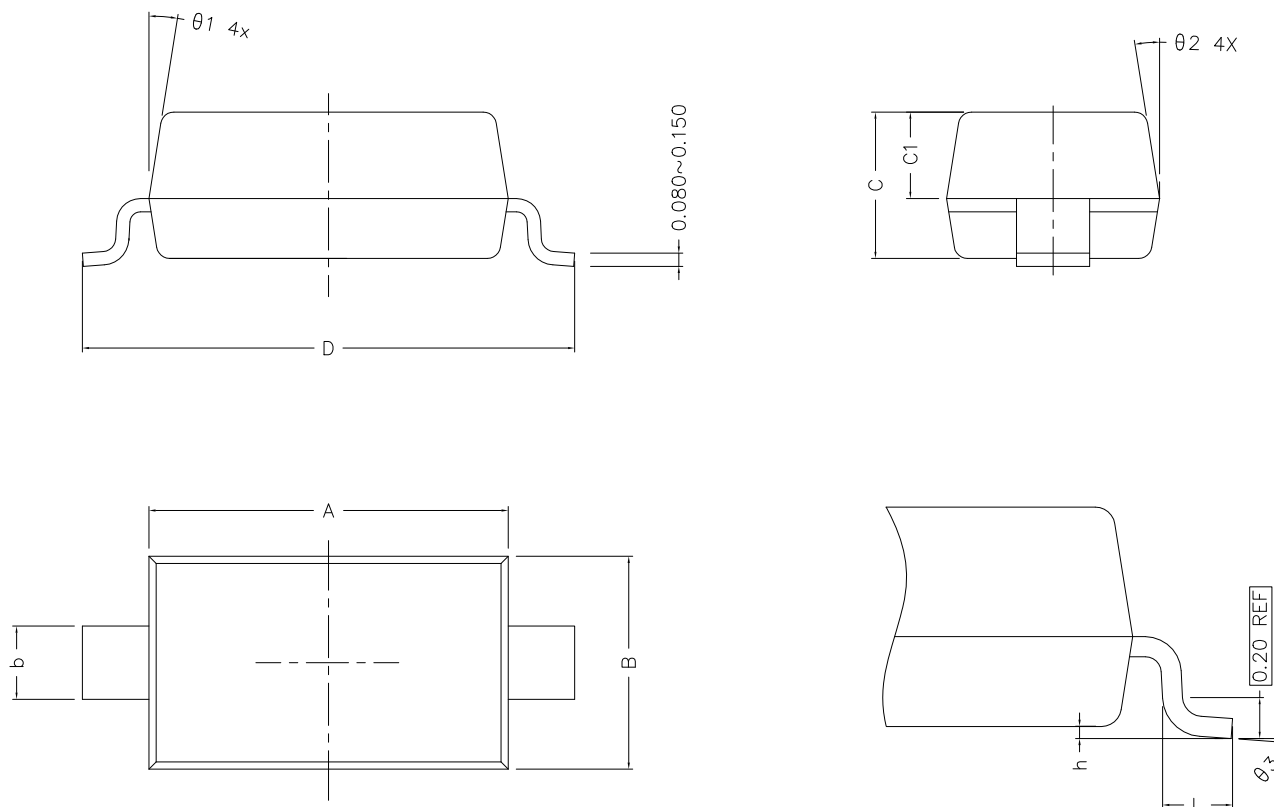
Silicon Planar Zener Diodes

Breakdown characteristics

 $T_J = \text{constant (pulsed)}$ 

Breakdown characteristics

 $T_J = \text{constant (pulsed)}$ 

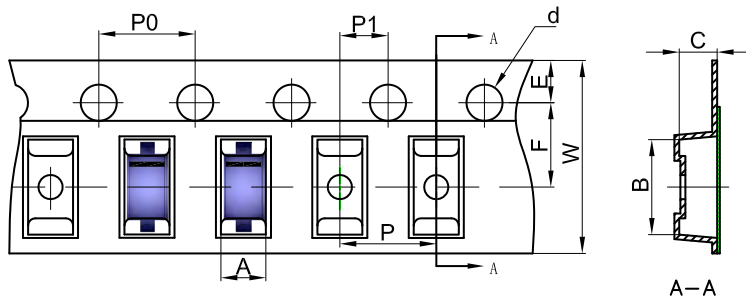
Package Outline Dimensions (Units: mm)


COMMON DIMENSIONS (UNITS OF MEASURE IS mm)			
	MIN	NORMAL	MAX
A	2.600	2.700	2.800
B	1.500	1.600	1.700
C	1.050	1.100	1.150
C1	0.600	0.650	0.700
D	3.550	3.700	3.850
L	0.250	0.350	0.450
h	0.010	0.050	0.100
b	0.450	0.550	0.650
θ1	9° TYPE		
θ2	9° TYPE		
θ3	0° ~ 7°		

Silicon Planar Zener Diodes

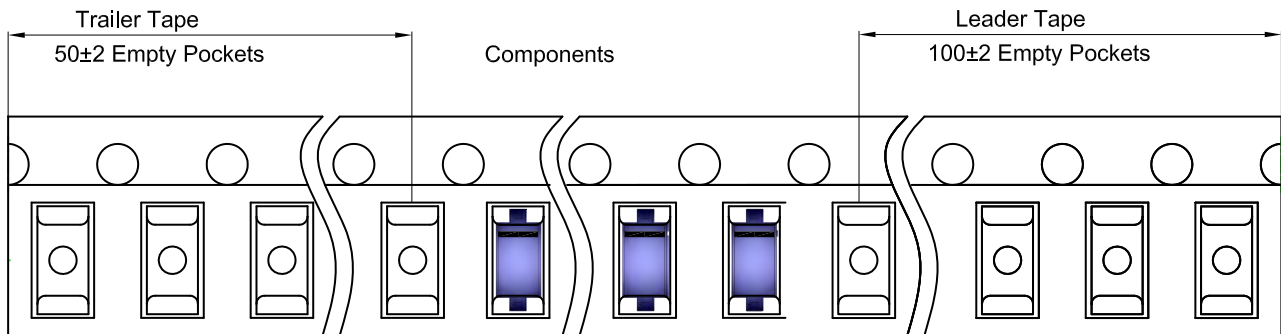
SOD-123 Tape and Reel

SOD-123 Embossed Carrier Tape

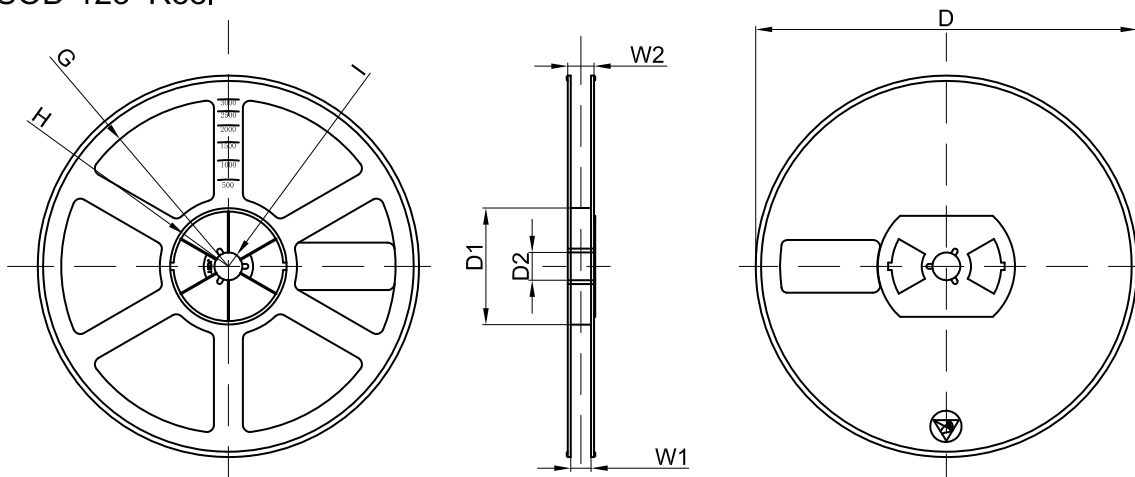


Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOD-123	1.85	3.95	1.57	Ø1.55	1.75	3.50	4.00	4.00	2.00	8.00

SOD-123 Tape Leader and Trailer



SOD-123 Reel



Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7"Dia	Ø178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30

REEL	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
3000 pcs	7 inch	45,000 pcs	192x182x182	180,000 pcs	400x385x205	