

SILICON PLANAR ZENER DIODES

FEATURES

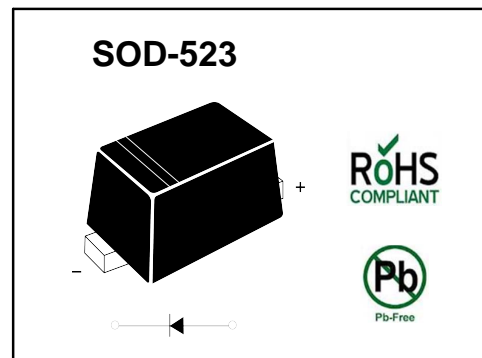
- Total power dissipation: max. 200 mW
- Small plastic package suitable for surface mounted design
- High reliability

DESCRIPTION

Silicon planar Zener diode in a small plastic SMD SOD-523 package

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}	200	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}	635	$^\circ\text{C/W}$
Forward Voltage at $I_F = 10\text{ mA}$	V_F	0.9	V

MM5Z2V2B~MM5Z39B

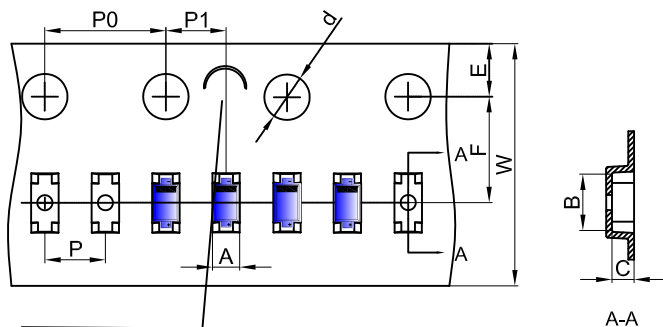
Characteristics at $T_a = 25\text{ }^\circ\text{C}$

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_{ZT} mA	I_R (Max.) iA	at V_R V
MM5Z2V2B	RM	2.2	5	2.1...2.4	100	5	120	0.7
MM5Z2V4B	RN	2.4	5	2.3...2.65	100	5	120	1
MM5Z2V7B	RP	2.7	5	2.65...2.95	110	5	120	1
MM5Z3V0B	RR	3.0	5	2.95...3.25	120	5	50	1
MM5Z3V3B	RX	3.3	5	3.25...3.55	120	5	20	1
MM5Z3V6B	RY	3.6	5	3.6...3.845	100	5	10	1
MM5Z3V9B	JY	3.9	5	3.89...4.16	100	5	5	1
MM5Z4V3B	JZ	4.3	5	4.17...4.43	100	5	5	1
MM5Z4V7B	KA	4.7	5	4.55...4.75	100	5	2	1
MM5Z5V1B	KB	5.1	5	4.98...5.2	80	5	2	1.5
MM5Z5V6B	KC	5.6	5	5.49...5.73	60	5	1	2.5
MM5Z6V2B	KD	6.2	5	6.06...6.33	60	5	1	3
MM5Z6V8B	KE	6.8	5	6.65...6.93	40	5	0.5	3.5
MM5Z7V5B	KF	7.5	5	7.28...7.6	30	5	0.5	4
MM5Z8V2B	KH	8.2	5	8.02...8.36	30	5	0.5	5
MM5Z9V1B	KJ	9.1	5	8.85...9.23	30	5	0.5	6
MM5Z10B	KK	10	5	9.77...10.21	30	5	0.1	7
MM5Z11B	KM	11	5	10.76...11.22	30	5	0.1	8
MM5Z12B	KN	12	5	11.74...12.24	30	5	0.1	9
MM5Z13B	KP	13	5	12.91...13.49	37	5	0.1	10
MM5Z15B	KR	15	5	14.34...14.98	42	5	0.1	11
MM5Z16B	KX	16	5	15.85...16.51	50	5	0.1	12
MM5Z18B	KY	18	5	17.56...18.35	65	5	0.1	13
MM5Z20B	KZ	20	5	19.52...20.39	85	5	0.1	15
MM5Z22B	RZ	22	5	21.54...22.47	100	5	0.1	17
MM5Z24B	XA	24	5	23.72...24.78	120	5	0.1	19
MM5Z27B	XB	27	5	26.19...27.53	150	5	0.1	21
MM5Z30B	XC	30	5	29.19...30.69	200	5	0.1	23
MM5Z33B	XD	33	5	32.15...33.79	250	5	0.1	25
MM5Z36B	XE	36	5	35.07...36.87	300	5	0.1	27
MM5Z39B	XF	39	5	37...41	100	5	2	30

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.

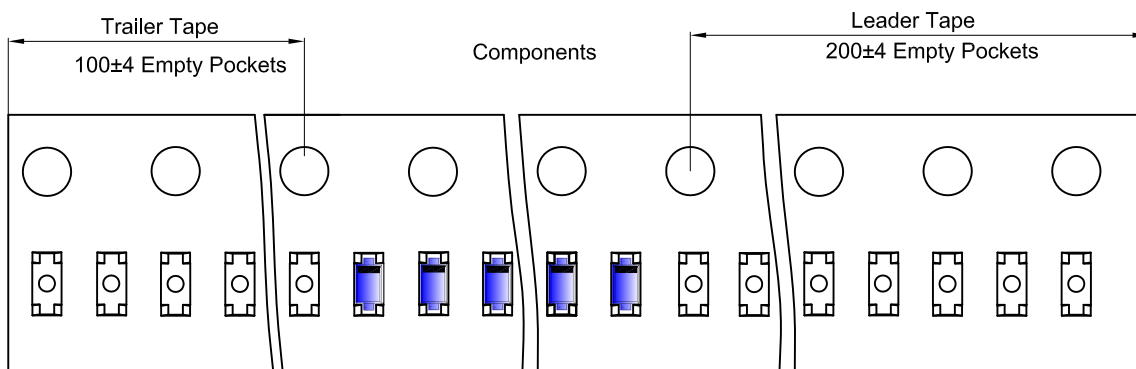
SOD-523 Embossed Carrier Tape



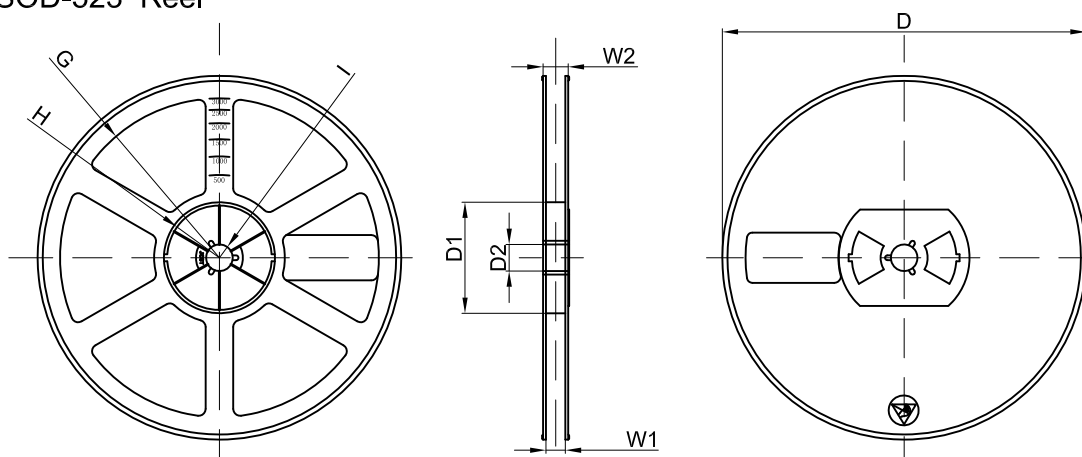
NOTE: TO GAVE 'C' ON CARRIER TAPE PER 120MM

Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOD-523	0.9	1.94	0.73	Ø1.50	1.75	3.50	4.00	2.00	2.00	8.00

SOD-523 Tape Leader and Trailer



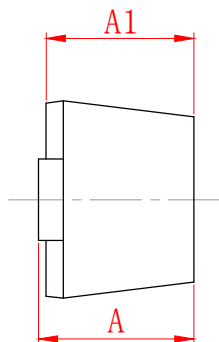
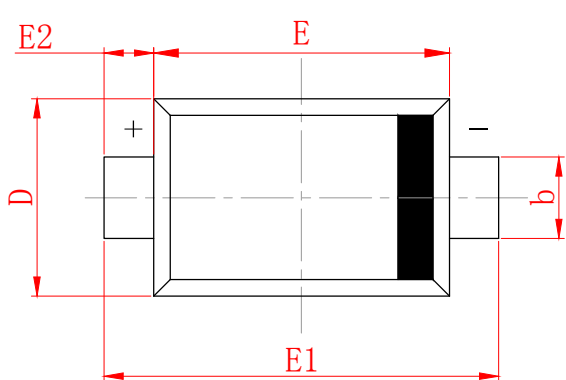
SOD-523 Reel



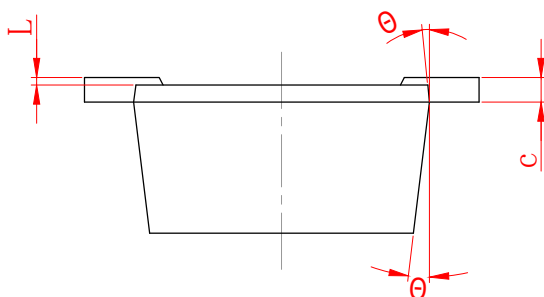
Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7" Dia	Ø178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30

REEL	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
8000 pcs	7 inch	120,000 pcs	203×203×195	480,000 pcs	438×438×220	

SOD-523 Package Outline Dimensions



SYMBOL	MILLIMETER	
	MIN	MAX
A	0.530	0.730
A1	0.500	0.700
b	0.280	0.380
c	0.080	0.150
D	0.750	0.850
E	1.100	1.300
E1	1.500	1.700
E2	0.200 REF	
L	0.010	0.070
θ	7° REF	



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