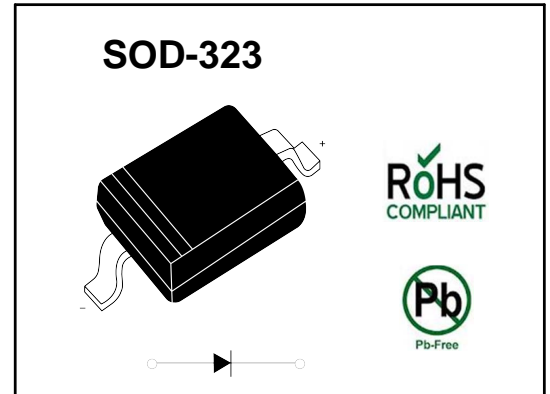


## Silicon Planar Zener Diodes

For stabilization of power supply application

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



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

Parameter	Symbol	Value	Unit
Power Dissipation	$P_{tot}$	300	mW
Repetitive Peak Forward Current	$I_{FRM}$	200	mA
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 55 to + 150	$^\circ\text{C}$

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

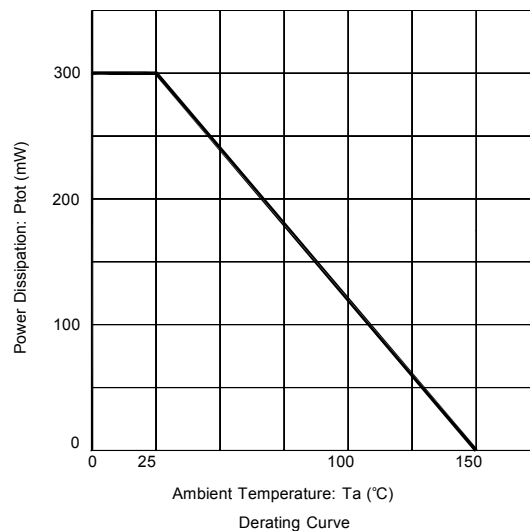
Parameter	Symbol	Value	Unit
Thermal Resistance Junction to Ambient Air	$R_{thA}$	417	$^\circ\text{C/W}$
Forward Voltage at $I_F = 10\text{ mA}$	$V_F$	1	V

Type	Marking Code	Zener Voltage Range <sup>1)</sup>		Dynamic Impedance			Reverse Leakage Current		Temp. coefficient of Zener Voltage
		I <sub>ZT</sub> mA	for V <sub>Z</sub> V	Z <sub>ZT</sub> Ω (Max.)	Z <sub>ZK</sub> Ω (Max.)	at I <sub>ZK</sub> mA	I <sub>R</sub> μA (Max.)	at V <sub>R</sub> V	S <sub>Z</sub> (mV/°C) Typ. at I <sub>ZT</sub>
BCZ8024	1C	5	2.28...2.6	100	-	-	120	1	-1.6
BCZ8027	1D	5	2.5...2.9	110	-	-	120	1	-2
BCZ8027A	1C1		2.5...2.75						
BCZ8027B	7D		2.65...2.9						
BCZ8030	1E	5	2.8...3.2	120	-	-	50	1	-2.1
BCZ8030A	1F1		2.8...3.05						
BCZ8030B	7E		2.95...3.2						
BCZ8033	1F	5	3.1...3.5	130	-	-	20	1	-2.4
BCZ8033A	1J1		3.1...3.35						
BCZ8033B	7F		3.25...3.5						
BCZ8036	1H	5	3.4...3.8	130	-	-	10	1	-2.4
BCZ8036A	1M1		3.4...3.65						
BCZ8036B	7H		3.55...3.8						
BCZ8039	1J	5	3.7...4.1	130	-	-	10	1	-2.5
BCZ8039A	1Q1		3.7...3.97						
BCZ8039B	7J		3.87...4.1						
BCZ8043	1K	5	4...4.6	130	-	-	10	1	-2.5
BCZ8043A	1T1		4.03...4.26						
BCZ8043B	7K		4.17...4.4						
BCZ8043C	1W1		4.31...4.54						
BCZ8047	1M	5	4.4...5	80	800	1	2	1	-1.4
BCZ8047A	1Y1		4.45...4.69						
BCZ8047B	EB		4.59...4.83						
BCZ8047C	2A1		4.74...4.99						
BCZ8051	1N	5	4.8...5.4	60	500	1	2	1.5	-0.8
BCZ8051A	2C1		4.87...5.12						
BCZ8051B	EC		5...5.26						
BCZ8051C	2E1		5.14...5.4						
BCZ8056	1P	5	5.3...6	40	200	0.5	1	2.5	1.2
BCZ8056A	2G1		5.3...5.58						
BCZ8056B	ED		5.48...5.76						
BCZ8056C	2J1		5.66...5.95						
BCZ8062	1R	5	5.8...6.6	30	100	0.5	1	3	2.3
BCZ8062A	2L1		5.85...6.15						
BCZ8062B	7R		6.05...6.36						
BCZ8062C	2N1		6.24...6.56						
BCZ8068	1X	5	6.4...7.2	20	60	0.5	0.5	3.5	3
BCZ8068A	2Q1		6.44...6.77						
BCZ8068B	7X		6.64...6.98						
BCZ8068C	2S1		6.85...7.2						
BCZ8075	1Y	5	7...7.9	20	60	0.5	0.5	4	4
BCZ8075A	2U1		7.07...7.43						
BCZ8075B	7Y		7.29...7.67						
BCZ8075C	2X1		7.51...7.89						

Type	Marking Code	Zener Voltage Range <sup>1)</sup>		Dynamic Impedance			Reverse Leakage Current		Temp. coefficient of Zener Voltage
		I <sub>ZT</sub> mA	V <sub>Z</sub> V	Z <sub>ZT</sub> Ω (Max.)	Z <sub>ZK</sub> Ω (Max.)	at I <sub>ZK</sub> mA	I <sub>R</sub> μA (Max.)	at V <sub>R</sub> V	S <sub>Z</sub> (mV/°C) Typ. at I <sub>ZT</sub>
BCZ8082	1Z	5	7.7...8.7	20	60	0.5	0.5	5	4.6
BCZ8082A	2Z1		7.77...8.17						
BCZ8082B	EJ		8.03...8.43						
BCZ8082C	3B1		8.29...8.7						
BCZ8091	2A	5	8.5...9.6	20	60	0.5	0.5	6	5.5
BCZ8091A	3D1		8.58...9.02						
BCZ8091B	EK		8.87...9.33						
BCZ8091C	3F1		9.14...9.6						
BCZ8100	2B	5	9.4...10.6	30	60	0.5	0.1	7	6.4
BCZ8100A	3H1		9.44...9.92						
BCZ8100B	8B		9.75...10.25						
BCZ8100C	3K1		10.07...10.59						
BCZ8110	2C	5	10.4...11.6	30	60	0.5	0.1	8	7.4
BCZ8110A	3M1		10.4...10.94						
BCZ8110B	EN		10.73...11.28						
BCZ8110C	3P1		11.05...11.6						
BCZ8120	2D	5	11.4...12.7	30	80	0.5	0.1	9	8.4
BCZ8120A	3R1		11.4...11.96						
BCZ8120B	8D		11.73...12.33						
BCZ8120C	3T1		12.06...12.68						
BCZ8130	2E	5	12.4...14.1	35	80	0.5	0.1	10	9.4
BCZ8130A	3W1		12.4...12.99						
BCZ8130B	ER		12.73...13.4						
BCZ8130C	3Y1		13.25...14.08						
BCZ8140	3Z1	5	13.65...14.35	40	80	0.5	0.1	10	10
BCZ8150	2F	5	13.9...15.6	40	80	0.5	0.1	11	11.4
BCZ8150A	4B1		13.9...14.76						
BCZ8150B	EX		14.6...15.35						
BCZ8150C	4D1		14.95...15.6						
BCZ8160	2H	5	15.3...17.1	50	80	0.5	0.1	12	12.4
BCZ8160A	4F1		15.3...16.09						
BCZ8160B	8H		15.7...16.5						
BCZ8160C	4H1		16.26...17.1						
BCZ8180	2J	5	16.9...19.1	60	80	0.5	0.1	13	14.4
BCZ8180A	4K1		16.9...17.76						
BCZ8180B	8J		17.55...18.45						
BCZ8180C	4M1		18.2...19.1						
BCZ8200	2K	5	18.8...21.2	80	100	0.5	0.1	15	16.4
BCZ8200A	4P1		18.85...19.81						
BCZ8200B	8K		19.5...20.5						
BCZ8200C	4R1		20.15...21.19						
BCZ8220	2M	5	20.8...23.3	80	100	0.5	0.1	17	18.4
BCZ8220A	4T1		20.8...21.86						
BCZ8220B	8M		21.45...22.55						
BCZ8220C	4W1		22.1...23.24						

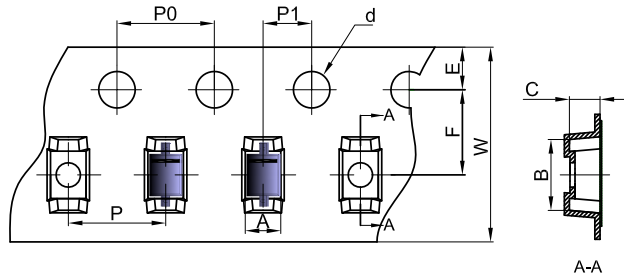
Type	Marking Code	Zener Voltage Range <sup>1)</sup>		Dynamic Impedance			Reverse Leakage Current		Temp. coefficient of Zener Voltage
		$I_{ZT}$ mA	$V_Z$ V	$Z_{ZT}$ $\Omega$ (Max.)	$Z_{ZK}$ $\Omega$ (Max.)	at $I_{ZK}$ mA	$I_R$ $\mu A$ (Max.)	at $V_R$ V	$S_Z$ (mV/°C) Typ. at $I_{ZT}$
BCZ8240	2N	5	22.8...25.6	100	120	0.5	0.1	19	20.4
BCZ8240A	4Y1		22.8...23.97						
BCZ8240B	FC		23.5...24.7						
BCZ8240C	5A1		24.35...25.6						
BCZ8270	2P	2	25.1...28.9	120	120	0.5	0.1	21	23.4
BCZ8270A	5C1		25.3...26.7						
BCZ8270B	FD		26.3...27.7						
BCZ8270C	5E1		27.3...28.7						
BCZ8300	2R	2	28...32	160	160	0.5	0.1	23	26.6
BCZ8300A	5G1		28.3...29.7						
BCZ8300B	FE		29.3...30.8						
BCZ8300C	5J1		30.2...31.8						
BCZ8330	2X	2	31...35	200	200	0.5	0.1	25	29.7
BCZ8330A	5L1		31.2...32.8						
BCZ8330B	8X		32.2...33.8						
BCZ8330C	5N1		33.2...34.9						
BCZ8360	2Y	2	34...38	250	250	0.5	0.1	27	33
BCZ8360A	5Q1		34.1...35.9						
BCZ8360B	8Y		35.1...36.9						
BCZ8360C	5S1		36.1...37.9						
BCZ8390	2Z	2	37...41	300	300	0.5	2	30	35.6
BCZ8390A	5U1		37.1...39						
BCZ8390B	FJ		38...40						
BCZ8390C	5X1		39...41						

<sup>1)</sup>  $V_Z$  is tested with pulses (20 ms).



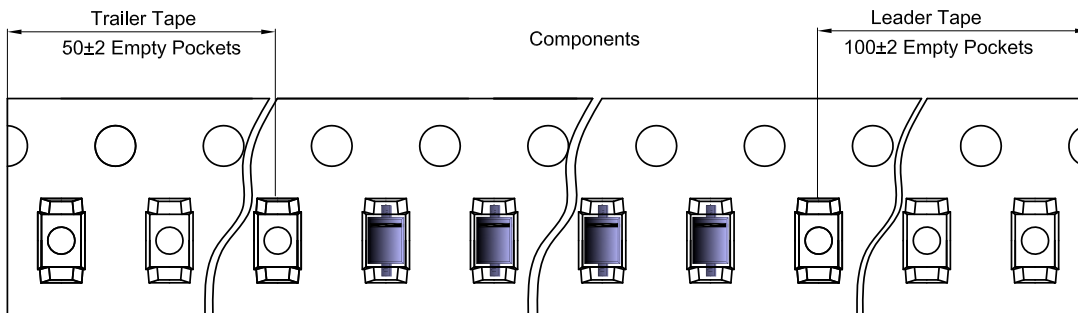
## SOD-323 Tape and Reel

### SOD-323 Embossed Carrier Tape

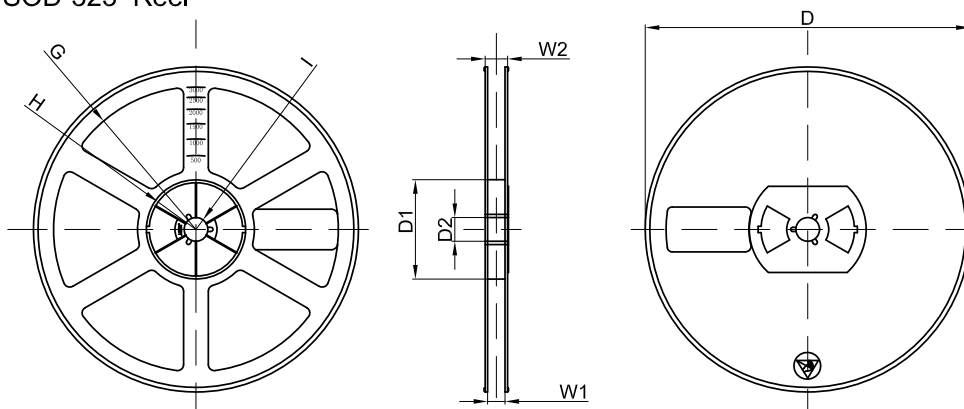


Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOD-323	1.48	3.3	1.25	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00

### SOD-323 Tape Leader and Trailer



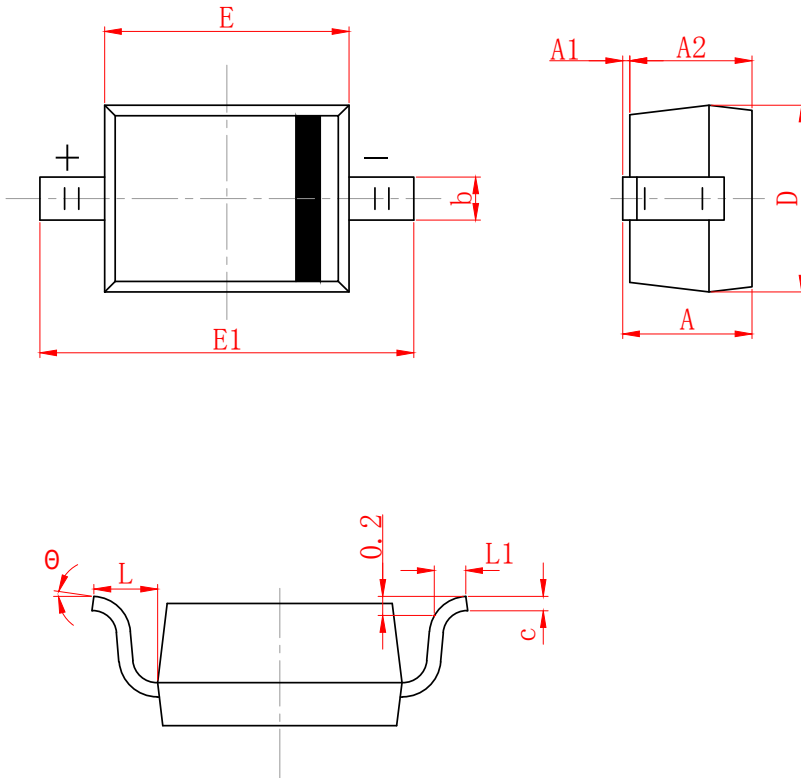
### SOD-323 Reel



Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7" Dia	Ø178.00	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	203×203×195	180,000 pcs	438×438×220	

## SOD-323 Package Outline Dimensions



SYMBOL	MILLIMETER	
	MIN	MAX
A		1.000
A1	0.000	0.100
A2	0.800	0.900
b	0.250	0.350
c	0.008	0.150
D	1.200	1.400
E	1.600	1.800
E1	2.500	2.700
L	0.475 (REF)	
L1	0.250	0.400
θ	0°	8°

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