

BZ T52C2V4W THRU BZ T52C75W

SOD123 Plastic-Encapsulate Diodes

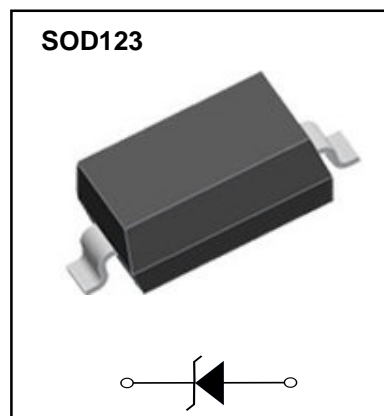
Zener Diodes

Features

- P_d 500mW
- V_z 2.4V- 75V

Applications

- Stabilizing Voltage



Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Conditions	Max
Power dissipation	P_d	mW	$T_A=25^\circ\text{C}$	500
Zener current	I_z	mA		P_v / V_z
Maximum junction temperature	T_j	$^\circ\text{C}$		150
Storage temperature range	T_{stg}	$^\circ\text{C}$		-65 to +150

Electrical Characteristics ($T_A=25^\circ\text{C}$ Unless otherwise specified)

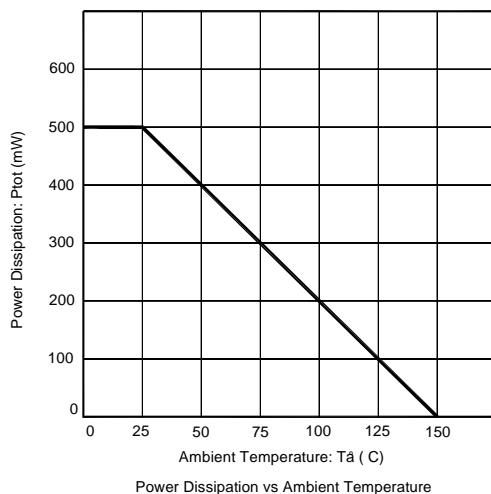
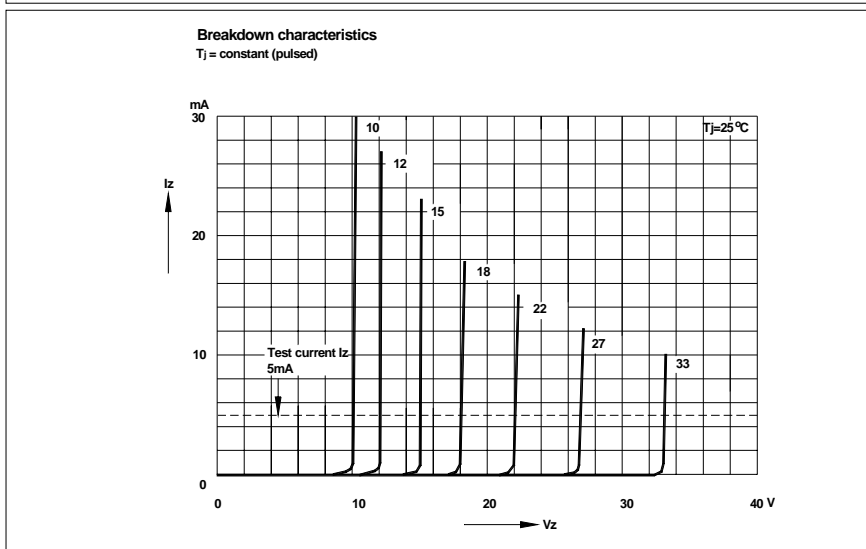
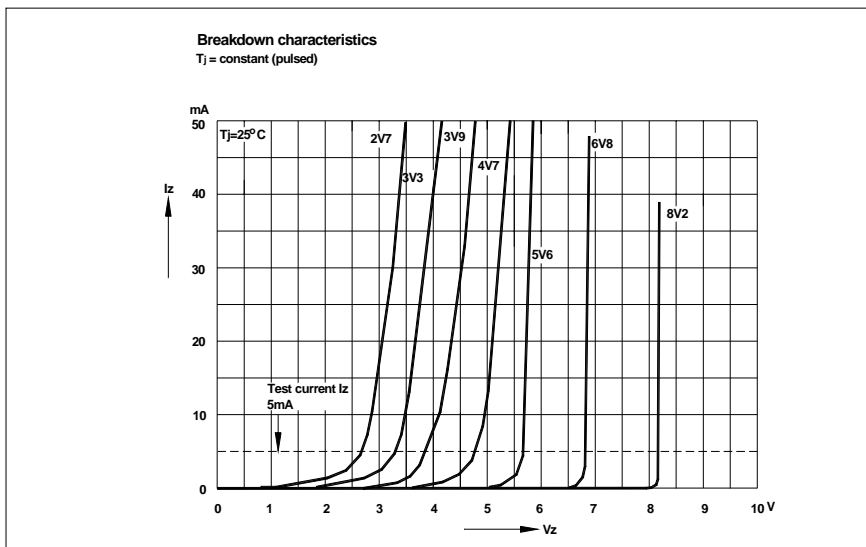
Item	Symbol	Unit	Conditions	Max
Thermal resistance	$R_{\theta JA}$	$^\circ\text{C}/\text{W}$	Between junction and ambient	340
Forward voltage	V_F	V	$I_F = 10\text{mA}$	0.9

Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

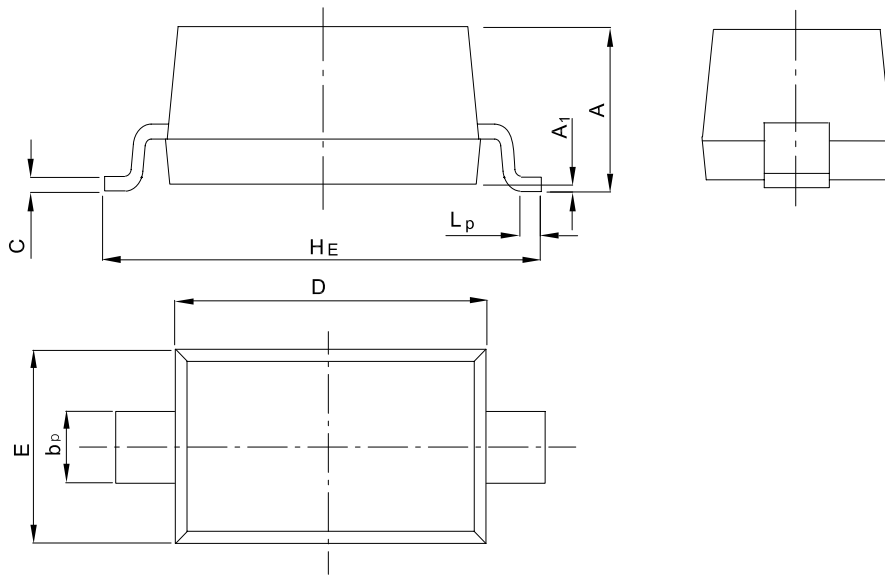
Type	Marking Code	Zener Voltage Range ¹⁾			Dynamic Impedance				Reverse Leakage Current	
		V_{znom}	V_{ZT}	at I_{ZT}	Z_{ZT}	at I_{ZT}	Z_{ZK}	at I_{ZK}	I_R	at V_R
		V	V	mA	Max. (Ω)	mA	Max. (Ω)	mA	Max. (μA)	V
BZT52C2V4W	MH	2.4	2.2...2.6	5	100	5	600	1	50	1
BZT52C2V7W	MJ	2.7	2.5...2.9	5	100	5	600	1	20	1
BZT52C3V0W	MK	3.0	2.8...3.2	5	95	5	600	1	10	1
BZT52C3V3W	MM	3.3	3.1...3.5	5	95	5	600	1	5	1
BZT52C3V6W	MN	3.6	3.4...3.8	5	90	5	600	1	5	1
BZT52C3V9W	MP	3.9	3.7...4.1	5	90	5	600	1	3	1
BZT52C4V3W	MR	4.3	4...4.6	5	90	5	600	1	3	1
BZT52C4V7W	MX	4.7	4.4...5	5	80	5	500	1	3	2
BZT52C5V1W	MY	5.1	4.8...5.4	5	60	5	480	1	2	2
BZT52C5V6W	MZ	5.6	5.2...6	5	40	5	400	1	1	2
BZT52C6V2W	NA	6.2	5.8...6.6	5	10	5	150	1	3	4
BZT52C6V8W	NB	6.8	6.4...7.2	5	15	5	80	1	2	4
BZT52C7V5W	NC	7.5	7...7.9	5	15	5	80	1	1	5
BZT52C8V2W	ND	8.2	7.7...8.7	5	15	5	80	1	0.7	5
BZT52C9V1W	NE	9.1	8.5...9.6	5	15	5	100	1	0.5	6
BZT52C10W	NF	10	9.4...10.6	5	20	5	150	1	0.2	7
BZT52C11W	NH	11	10.4...11.6	5	20	5	150	1	0.1	8
BZT52C12W	NJ	12	11.4...12.7	5	25	5	150	1	0.1	8
BZT52C13W	NK	13	12.4...14.1	5	30	5	170	1	0.1	8
BZT52C15W	NM	15	13.8...15.6	5	30	5	200	1	0.1	10.5
BZT52C16W	NN	16	15.3...17.1	5	40	5	200	1	0.1	11.2
BZT52C18W	NP	18	16.8...19.1	5	45	5	225	1	0.1	12.6
BZT52C20W	NR	20	18.8...21.2	5	55	5	225	1	0.1	14
BZT52C22W	NX	22	20.8...23.3	5	55	5	250	1	0.1	15.4
BZT52C24W	NY	24	22.8...25.6	5	70	5	250	1	0.1	16.8
BZT52C27W	NZ	27	25.1...28.9	2	80	2	300	0.5	0.1	18.9
BZT52C30W	PA	30	28...32	2	80	2	300	0.5	0.1	21
BZT52C33W	PB	33	31...35	2	80	2	325	0.5	0.1	23.1
BZT52C36W	PC	36	34...38	2	90	2	350	0.5	0.1	25.2
BZT52C39W	PD	39	37...41	2	130	2	350	0.5	0.1	27.3
BZT52C43W	6A	43	40...46	2.5	130	2	500	1	2	33
BZT52C47W	6B	47	44...50	2.5	150	2	500	1	2	36
BZT52C51W	6C	51	48...54	2.5	180	2	500	1	1	39
BZT52C56W	6D	56	52...60	2.5	180	2	500	1	1	43
BZT52C62W	6E	62	58...66	2.5	200	2	500	1	0.2	47
BZT52C68W	6F	68	64...72	2.5	250	2	500	1	0.2	52
BZT52C75W	6H	75	70...79	2.5	300	2	500	1	0.2	57

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

Typical Characteristics

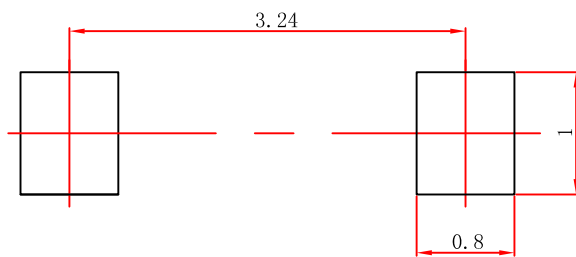


SOD-123 Package Outline Dimensions



UNIT	A	b _p	C	D	E	H _E	A ₁	L _p
mm	1.20 0.90	0.60 0.50	0.135 0.100	2.75 2.55	1.65 1.55	3.85 3.55	0.10 0.01	0.50 0.20

SOD-123 Suggested Pad Layout



Note:

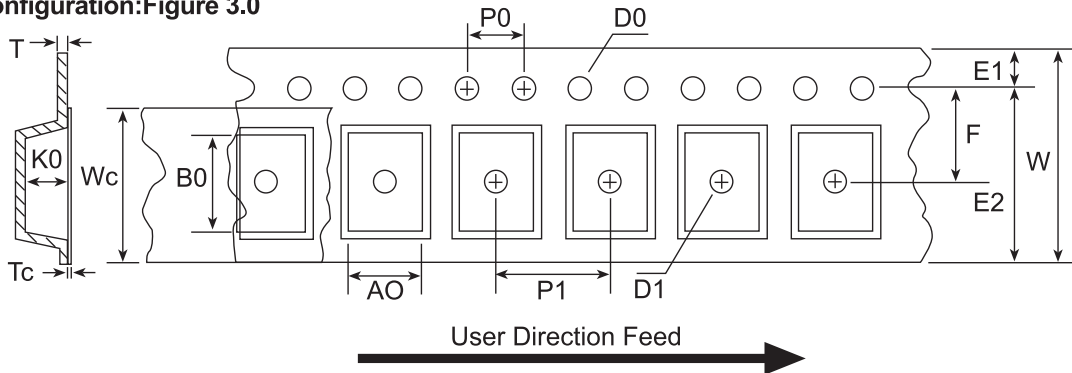
1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.05 mm.
3. The pad layout is for reference purposes only.

NOTICE

JSHD reserve the right to make modifications, enhancements, improvements, corrections or other changes without further notice to any product herein. JSHD does not assume any liability arising out of the application or use of any product described herein.

Reel Taping Specifications For Surface Mount Devices-SOD123

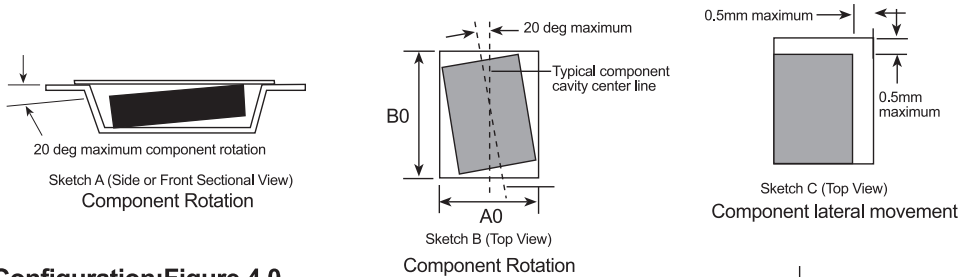
SOD123 Embossed Carrier Tape Configuration: Figure 3.0



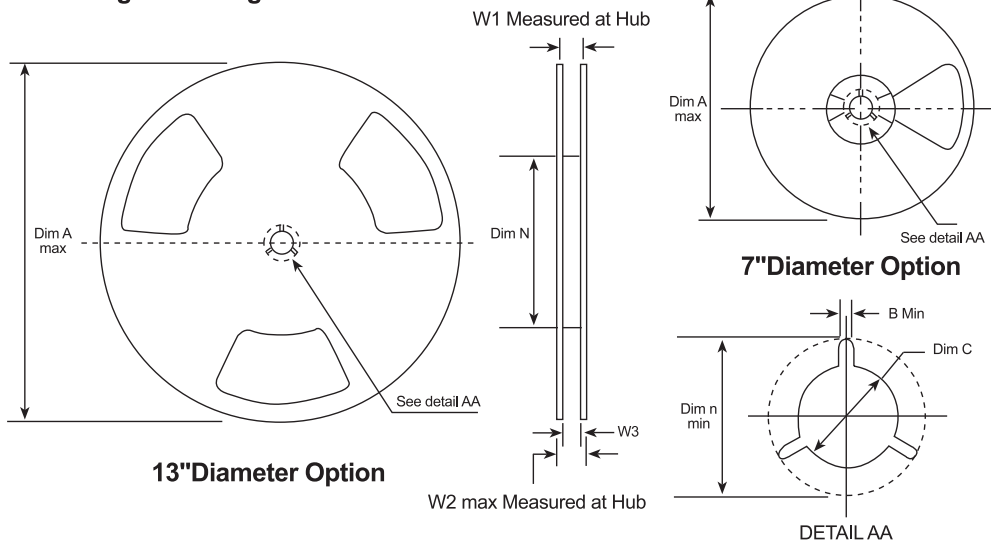
Dimensions are millimeter

Pkg type	A0	B0	W	D0	D1	E1	E2	F	P1	P0	K0	T	Wc	Tc
SOD123 (8mm)	1.85 +/-0.10	3.94 +/-0.10	8.0 +/-0.3	1.50 +/-0.125	1.125 +/-0.125	1.75 +/-0.10	6.25 min	3.50 +/-0.05	4.0 +/-0.10	4.0 +/-0.10	1.50 +/-0.10	0.20 +/-0.020	5.2 +/-0.20	0.06 +/-0.02

Notes: A0, B0 and K0 dimensions are determined with respect to the EW Jeced RS-481 rotational and lateral movement requirements (see sketches A, B and C).



SOD123 Reel Configuration: Figure 4.0



Dimensions are in inches and millimeter

Type Size	Reel Option	Dim A	Dim B	Dim C	Dim D	Dim N	Dim W1	Dim W2	Dim W3 (LSL-USL)
8mm	7" Dia	7.00 177.8	0.059 1.5	512+0.020/-0.008 13+0.5/-0.2	0.795 20.0	2.165 55	0.331+0.059/-0.000 8.4+1.5/0	0.567 14.4	0.311-0.429 7.9-10.9
8mm	13" Dia	13.00 330	0.059 1.5	512+0.020/-0.008 13+0.5/-0.2	0.795 20.0	4.00 100	0.331+0.059/-0.000 8.4+1.5/0	0.567 14.4	0.311-0.429 7.9-10.9