

BZT52C2V4S THRU BZT52C43S

SOD323 Plastic-Encapsulate Diodes

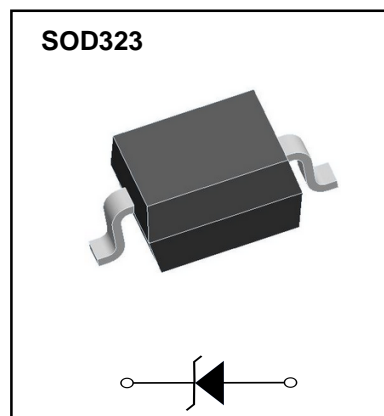
Zener Diodes

Features

- P_d 200mW
- V_z 2.4V- 43V

Applications

- Stabilizing Voltage



Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Conditions	Max
Power dissipation	P_d	mW	$T_A=25^\circ\text{C}$	200
Zener current	I_z	mA		P_v / V_z
Maximum junction temperature	T_j	$^\circ\text{C}$		-65 to +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	625
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	Zener Voltage Range (Note 2)				Maximum Zener Impedance (Note 3)			Maximum Reverse Current (Note 2)		Typical Temperature Coefficient @ I_{ZTC} mV/°C		Test Current I_{ZTC}
		$V_Z@I_{ZT}$			I_{ZT}	$Z_{ZT}@I_{ZT}$	$Z_{ZK}@I_{ZK}$	I_{ZK}	I_R	V_R	Min	Max	mA
		Nom(V)	Min(V)	Max(V)	(mA)	Ω		(mA)	μA	V			
BZT52C2V4S	WX	2.4	2.20	2.60	5	100	600	1.0	50	1.0	-3.5	0	5
BZT52C2V7S	W1	2.7	2.5	2.9	5	100	600	1.0	20	1.0	-3.5	0	5
BZT52C3V0S	W2	3.0	2.8	3.2	5	95	600	1.0	10	1.0	-3.5	0	5
BZT52C3V3S	W3	3.3	3.1	3.5	5	95	600	1.0	5	1.0	-3.5	0	5
BZT52C3V6S	W4	3.6	3.4	3.8	5	90	600	1.0	5	1.0	-3.5	0	5
BZT52C3V9S	W5	3.9	3.7	4.1	5	90	600	1.0	3	1.0	-3.5	0	5
BZT52C4V3S	W6	4.3	4.0	4.6	5	90	600	1.0	3	1.0	-3.5	0	5
BZT52C4V7S	W7	4.7	4.4	5.0	5	80	500	1.0	3	2.0	-3.5	0.2	5
BZT52C5V1S	W8	5.1	4.8	5.4	5	60	480	1.0	2	2.0	-2.7	1.2	5
BZT52C5V6S	W9	5.6	5.2	6.0	5	40	400	1.0	1	2.0	-2	2.5	5
BZT52C6V2S	WA	6.2	5.8	6.6	5	10	150	1.0	3	4.0	0.4	3.7	5
BZT52C6V8S	WB	6.8	6.4	7.2	5	15	80	1.0	2	4.0	1.2	4.5	5
BZT52C7V5S	WC	7.5	7.0	7.9	5	15	80	1.0	1	5.0	2.5	5.3	5
BZT52C8V2S	WD	8.2	7.7	8.7	5	15	80	1.0	0.7	5.0	3.2	6.2	5
BZT52C9V1S	WE	9.1	8.5	9.6	5	15	100	1.0	0.5	6.0	3.8	7.0	5
BZT52C10S	WF	10	9.4	10.6	5	20	150	1.0	0.2	7.0	4.5	8.0	5
BZT52C11S	WG	11	10.4	11.6	5	20	150	1.0	0.1	8.0	5.4	9.0	5
BZT52C12S	WH	12	11.4	12.7	5	25	150	1.0	0.1	8.0	6.0	10.0	5
BZT52C13S	WI	13	12.4	14.1	5	30	170	1.0	0.1	8.0	7.0	11.0	5
BZT52C15S	WJ	15	13.8	15.6	5	30	200	1.0	0.1	10.5	9.2	13	5
BZT52C16S	WK	16	15.3	17.1	5	40	200	1.0	0.1	11.2	10.4	14	5
BZT52C18S	WL	18	16.8	19.1	5	45	225	1.0	0.1	12.6	12.4	16	5
BZT52C20S	WM	20	18.8	21.2	5	55	225	1.0	0.1	14.0	14.4	18.0	5
BZT52C22S	WN	22	20.8	23.3	5	55	250	1.0	0.1	15.4	16.4	20.0	5
BZT52C24S	WO	24	22.8	25.6	5	70	250	1.0	0.1	16.8	18.4	22.0	5
BZT52C27S	WP	27	25.1	28.9	2	80	300	0.5	0.1	18.9	21.4	25.3	2
BZT52C30S	WQ	30	28.0	32.0	2	80	300	0.5	0.1	21.0	24.4	29.4	2
BZT52C33S	WR	33	31.0	35.0	2	80	325	0.5	0.1	23.1	27.4	33.4	2
BZT52C36S	WS	36	34.0	38.0	2	90	350	0.5	0.1	25.2	30.4	37.4	2
BZT52C39S	WT	39	37.0	41.0	2	130	350	0.5	0.1	27.3	33.4	41.2	2
BZT52C43S	WU	43	40.0	46.0	2	100	700	1	0.1	32	10	12	5

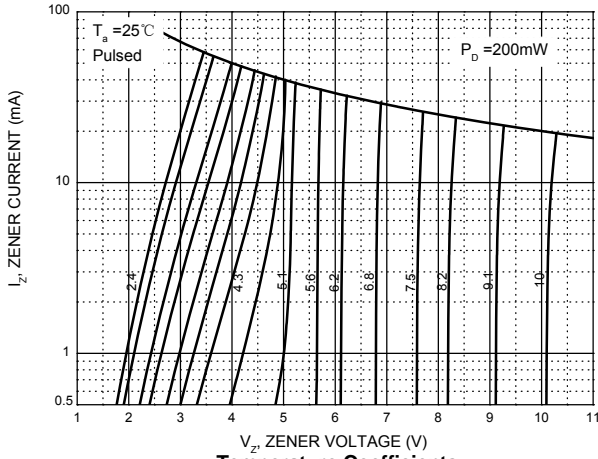
Notes: 1. Device mounted on ceramic PCB 7.6mm x 9.4mm x 0.87mm with pad areas 25mm².

2. Short duration test pulse used to minimize self-heating effect.

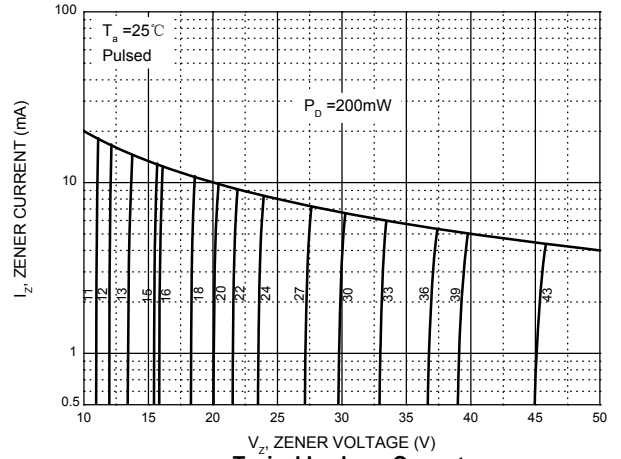
3. $f = 1\text{kHz}$.

Typical Characteristics

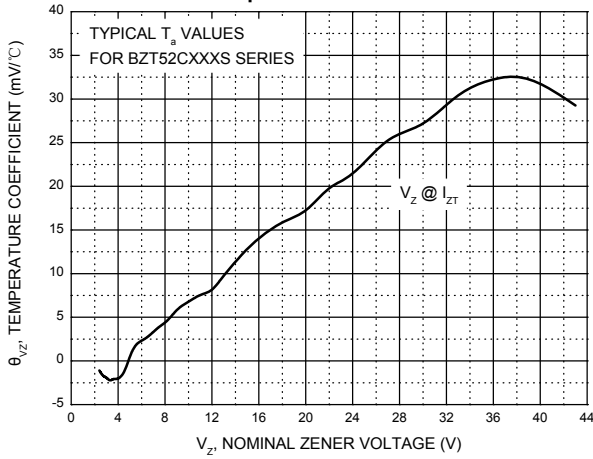
Zener Characteristics (V_z Up to 10 V)



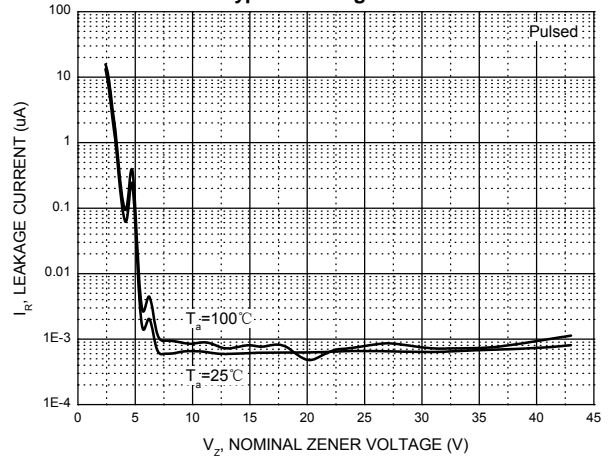
Zener Characteristics (11 V to 43 V)



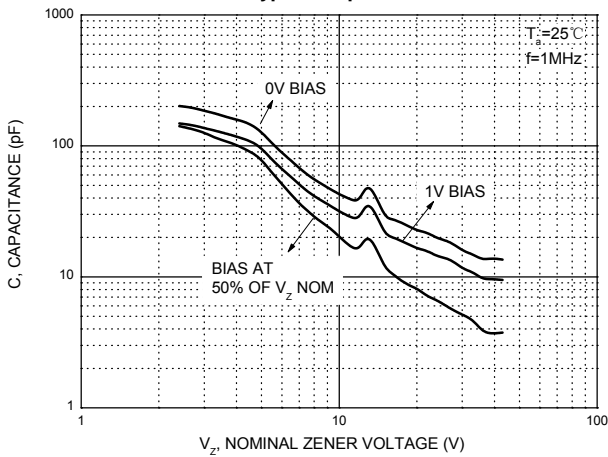
Temperature Coefficients



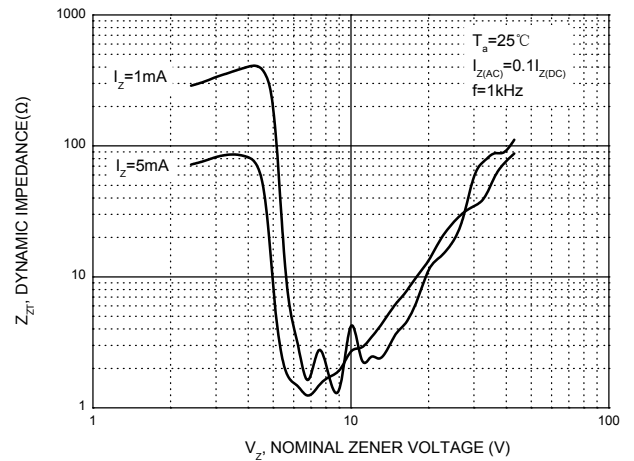
Typical Leakage Current



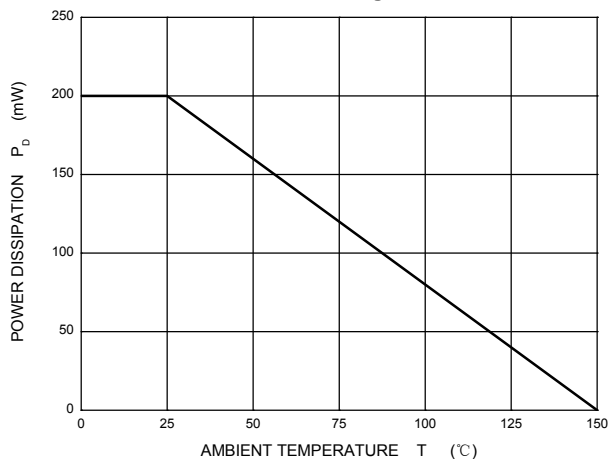
Typical Capacitance



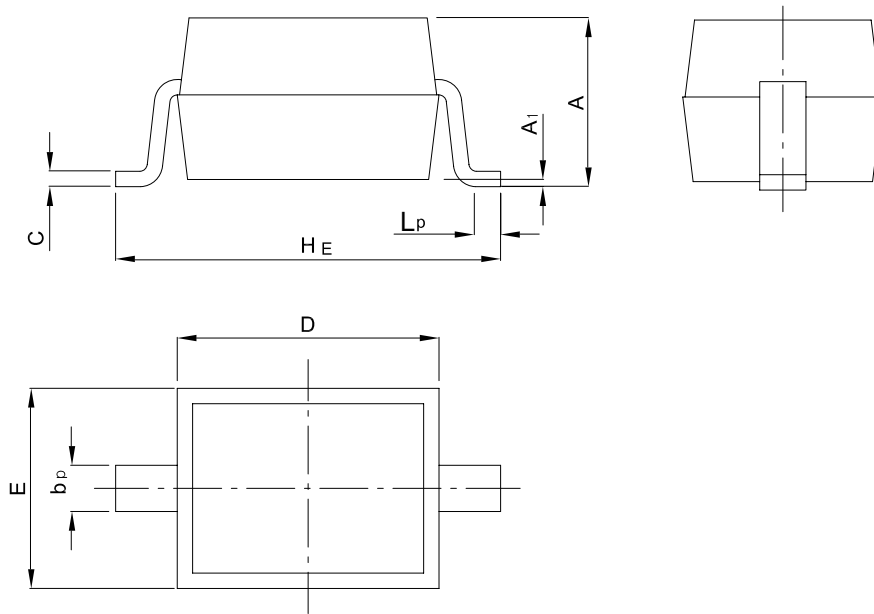
Effect of Zener Voltage on Zener Impedance



Power Derating Curve

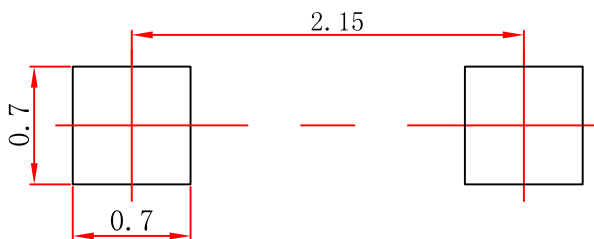


SOD323 Package Outline Dimensions



UNIT	A	bp	C	D	E	HE	A1	Lp
mm	1.20	0.40	0.15	1.80	1.35	2.80	0.10	0.50
	0.90	0.25	0.10	1.60	1.15	2.30	0.01	0.20

SOD323 Suggested Pad Layout



Note:

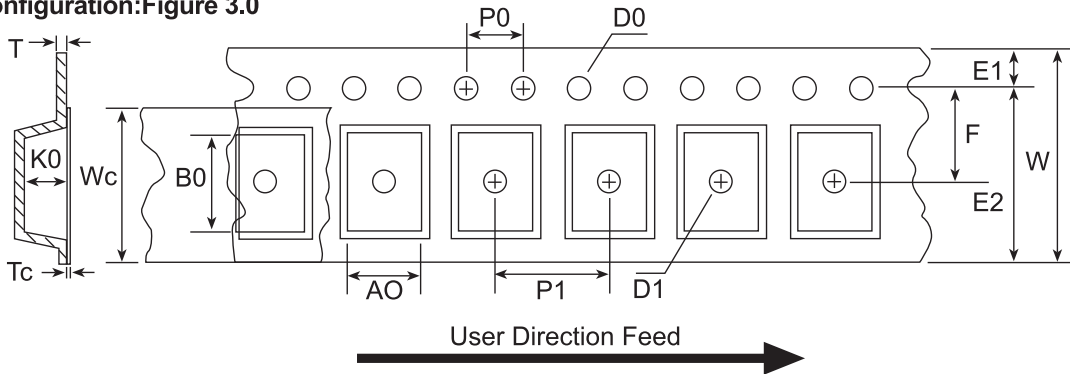
1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.05 mm.
3. The pad layout is for reference purposes only.

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.

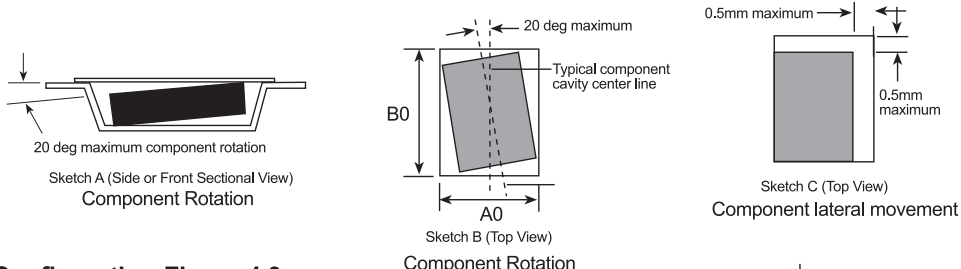
Reel Taping Specifications For Surface Mount Devices-SOD323

SOD323 Embossed Carrier Tape Configuration: Figure 3.0

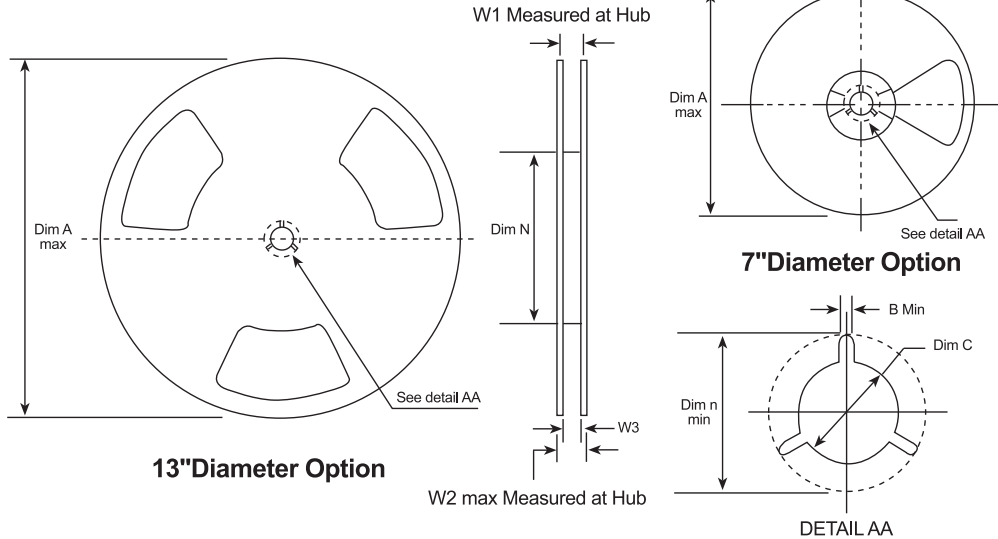


Dimensions are millimeter														
Pkg type	A0	B0	W	D0	D1	E1	E2	F	P1	P0	K0	T	Wc	Tc
SOD323 (8mm)	1.46 +/-0.10	2.9 +/-0.10	8.0 +/-0.3	1.50 +/-0.125	1.125 +/-0.125	1.75 +/-0.10	6.25 min	3.50 +/-0.05	4.0 +/-0.10	4.0 +/-0.10	1.25 +/-0.10	0.25 +/-0.020	5.2 +/-0.20	0.06 +/-0.02

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



SOD323 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

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Zener Diodes](#) category:

Click to view products by [High Diode](#) manufacturer:

Other Similar products are found below :

[MMSZ5245BS-7-F](#) [RKZ13B2KG#P1](#) [RKZ5.6B2KJ#R1](#) [EDZTE6113B](#) [EDZTE6116B](#) [EDZTE616.8B](#) [1N747A](#) [1N966B](#) [NTE5116A](#)
[NTE5121A](#) [NTE5139A](#) [NTE5147A](#) [NTE5152A](#) [NTE5155A](#) [NTE5156A](#) [NTE5164A](#) [JANS1N4974US](#) [SMAJ4764A-TP](#) [RKZ5.1BKU#P6](#)
[3SMAJ5946B-TP](#) [3SMAJ5950B-TP](#) [3SMBJ5920B-TP](#) [3SMBJ5925B-TP](#) [TDZTR24](#) [441774C](#) [MMSZ4678-TP](#) [MMSZ5232BQ-13-F](#)
[BZG04-36](#) [BZG05C9V1-HE3-TR](#) [HZM30NBTR-E](#) [UDZTE-175.1B](#) [3SMAJ5945B-TP](#) [3SMAJ5947B-TP](#) [3SMBJ5941B-TP](#) [DL4746A-TP](#)
[RKZ18B2KK#R1](#) [RKZ10B2KL#R1](#) [RKZ6.8B2KL#R1](#) [RKZ8.2B2KL#R1](#) [DZ2S240M0L](#) [SMAZ27-TP](#) [SMBZ5920B-E3/52](#) [ZMM3.0](#)
[RD16UM-T1-A](#) [RD39S-T1-A](#) [RD9.1S-T1-A](#) [RD10S-T1-A](#) [RD20S-T1-A](#) [RD2.2S-T1-A](#) [RD2.7UM-T1-A](#)