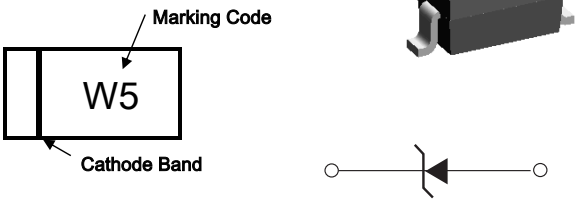
PRIMARY CHARACTERISTICS	
P_D	200mW
V_Z	2.4V~43V
I_{ZT}	Please refer to the specification
$T_{J,Max}$	150℃

SOD-323 PACKAGE

- Body Marking : Please refer to the specification

Ex : BZT52-3V9S



FEATURES

- Planar die construction
- 200mW power dissipation on ceramic PBC
- Zener Voltages from 2.4~43V
- General purpose, medium current
- Ideally suited for automated assembly processes
- Available in lead free version
- Moisture Sensitivity Level 1

MECHANICAL DATA

- Case：Molded plastic,SOD-323
- Polarity：As Above Marked
- Terminals :Plated terminals, solderable per MIL-STD-750,Method 2026
- Epoxy : UL94-V0 rated flame retardant

Maximum Ratings (T_a=25℃ unless otherwise specified)

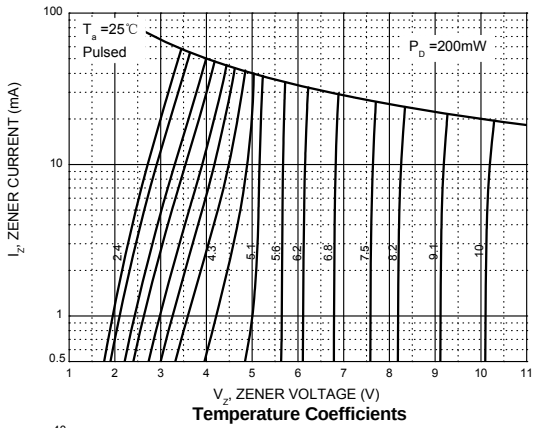
Characteristic	Symbol	Value	Unit
Forward Voltage (Note 2) @ I_F = 10mA	V_F	0.9	V
Power Dissipation(Note 1)	P_D	200	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	625	℃/W
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55~+150	℃

Notes: 1. Device mounted on ceramic PCB: 7.6mm x 9.4mm x 0.87mm with pad areas 25mm^2.
2. Short duration test pulse used to minimize self-heating effect.

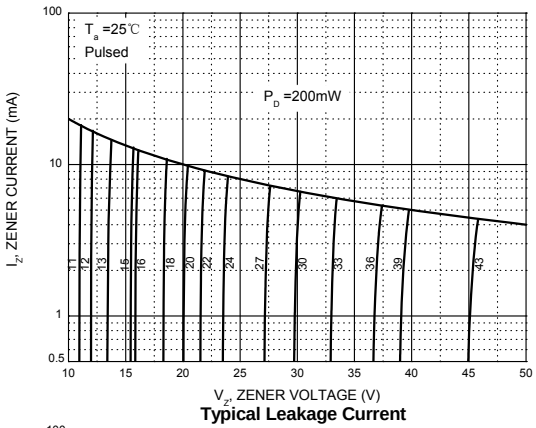
Part No.	Nominal Zener Voltage			Max. Zener Impedance				Max Reverse Leakage Current		Marking Code	Case
	V_Z @ I_{ZT}			Z_{ZT} @ I_{ZT}		Z_{ZK} @ I_{ZK}		I_R @ V_R			
	Nom. V	Min. V	Max. V	Ω	mA	Ω	mA	μA	V		
BZT52-C2V4S	2.4	2.28	2.52	85	5.0	600	1.0	100	1.0	WX	SOD-323
BZT52-C2V7S	2.7	2.57	2.84	83	5.0	600	1.0	75	1.0	W1	SOD-323
BZT52-C3S	3.0	2.85	3.15	95	5.0	600	1.0	50	1.0	W2	SOD-323
BZT52-C3V3S	3.3	3.14	3.47	95	5.0	600	1.0	25	1.0	W3	SOD-323
BZT52-C3V6S	3.6	3.42	3.78	95	5.0	600	1.0	15	1.0	W4	SOD-323
BZT52-C3V9S	3.9	3.71	4.10	95	5.0	600	1.0	10	1.0	W5	SOD-323
BZT52-C4V3S	4.3	4.09	4.52	95	5.0	600	1.0	5.0	1.0	W6	SOD-323
BZT52-C4V7S	4.7	4.47	4.94	78	5.0	500	1.0	5.0	2.0	W7	SOD-323
BZT52-C5V1S	5.1	4.85	5.36	60	5.0	480	1.0	0.1	0.8	W8	SOD-323
BZT52-C5V6S	5.6	5.32	5.88	40	5.0	400	1.0	0.1	1.0	W9	SOD-323
BZT52-C6V2S	6.2	5.89	6.51	10	5.0	150	1.0	0.1	2.0	WA	SOD-323
BZT52-C6V8S	6.8	6.46	7.14	8	5.0	80	1.0	0.1	3.0	WB	SOD-323
BZT52-C7V5S	7.5	7.13	7.88	7	5.0	80	1.0	0.1	5.0	WC	SOD-323
BZT52-C8V2S	8.2	7.79	8.61	7	5.0	80	1.0	0.1	6.0	WD	SOD-323
BZT52-C9V1S	9.1	8.65	9.56	10	5.0	100	1.0	0.1	7.0	WE	SOD-323
BZT52-C10S	10.0	9.50	10.50	15	5.0	150	1.0	0.1	7.5	WF	SOD-323
BZT52-C11S	11.0	10.45	11.55	20	5.0	150	1.0	0.1	8.5	WG	SOD-323
BZT52-C12S	12.0	11.40	12.60	20	5.0	150	1.0	0.1	9.0	WH	SOD-323
BZT52-C13S	13.0	12.35	13.65	25	5.0	170	1.0	0.1	10.0	WI	SOD-323
BZT52-C15S	15.0	14.25	15.75	30	5.0	200	1.0	0.1	11.0	WJ	SOD-323
BZT52-C16S	16.0	15.20	16.80	40	5.0	200	1.0	0.1	12.0	WK	SOD-323
BZT52-C18S	18.0	17.10	18.90	50	5.0	225	1.0	0.1	14.0	WL	SOD-323
BZT52-C20S	20.0	19.00	21.00	50	5.0	225	1.0	0.1	15.0	WM	SOD-323
BZT52-C22S	22.0	20.90	23.10	55	5.0	250	1.0	0.1	17.0	WN	SOD-323
BZT52-C24S	24.0	22.80	25.20	80	5.0	250	1.0	0.1	18.0	WO	SOD-323
BZT52-C27S	27.0	25.65	28.35	80	5.0	300	1.0	0.1	20.0	WP	SOD-323
BZT52-C30S	30.0	28.50	31.50	80	5.0	300	1.0	0.1	22.5	WQ	SOD-323
BZT52-C33S	33.0	31.35	34.65	80	5.0	325	1.0	0.1	25.0	WR	SOD-323
BZT52-C36S	36.0	34.20	37.80	90	5.0	350	1.0	0.1	27.0	WS	SOD-323
BZT52-C39S	39.0	37.05	40.95	90	5.0	350	1.0	0.1	29.0	WT	SOD-323
BZT52-C43S	43.0	40.85	45.15	100	5.0	700	1.0	0.1	32.0	WU	SOD-323

Typical Characteristics

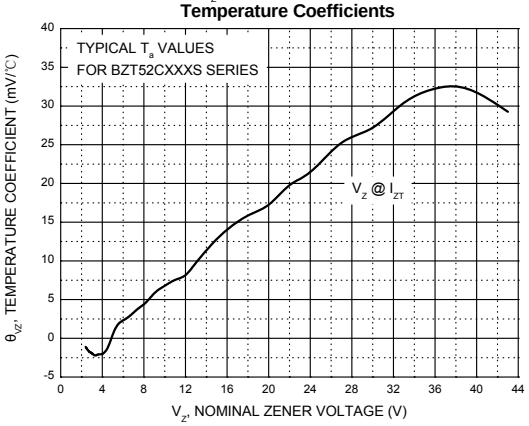
Zener Characteristics (V_Z Up to 10 V)



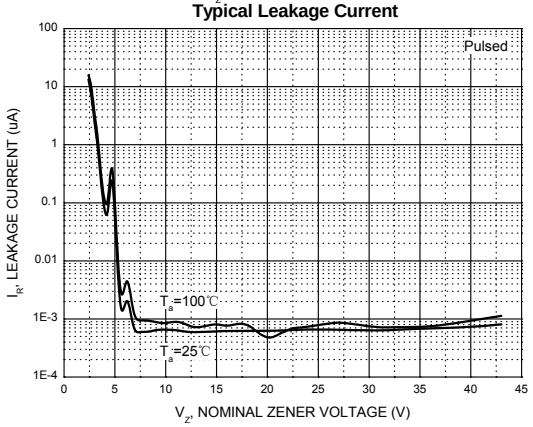
Zener Characteristics (11 V to 43 V)



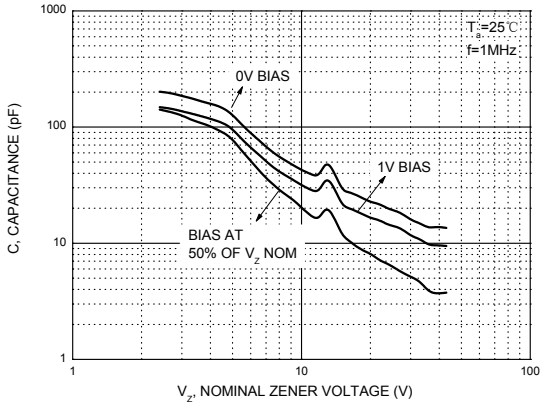
Temperature Coefficients



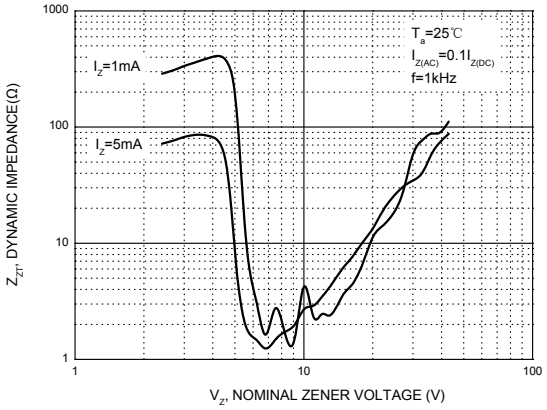
Typical Leakage Current



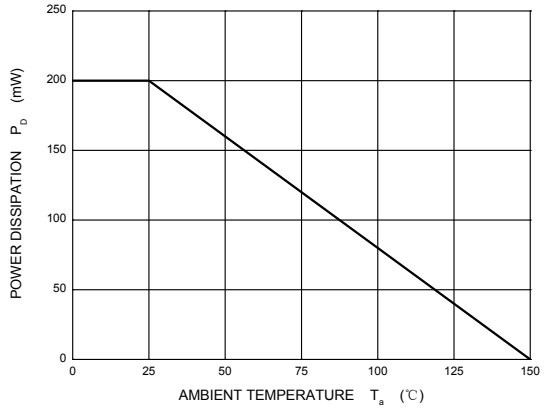
Typical Capacitance



Effect of Zener Voltage on Zener Impedance

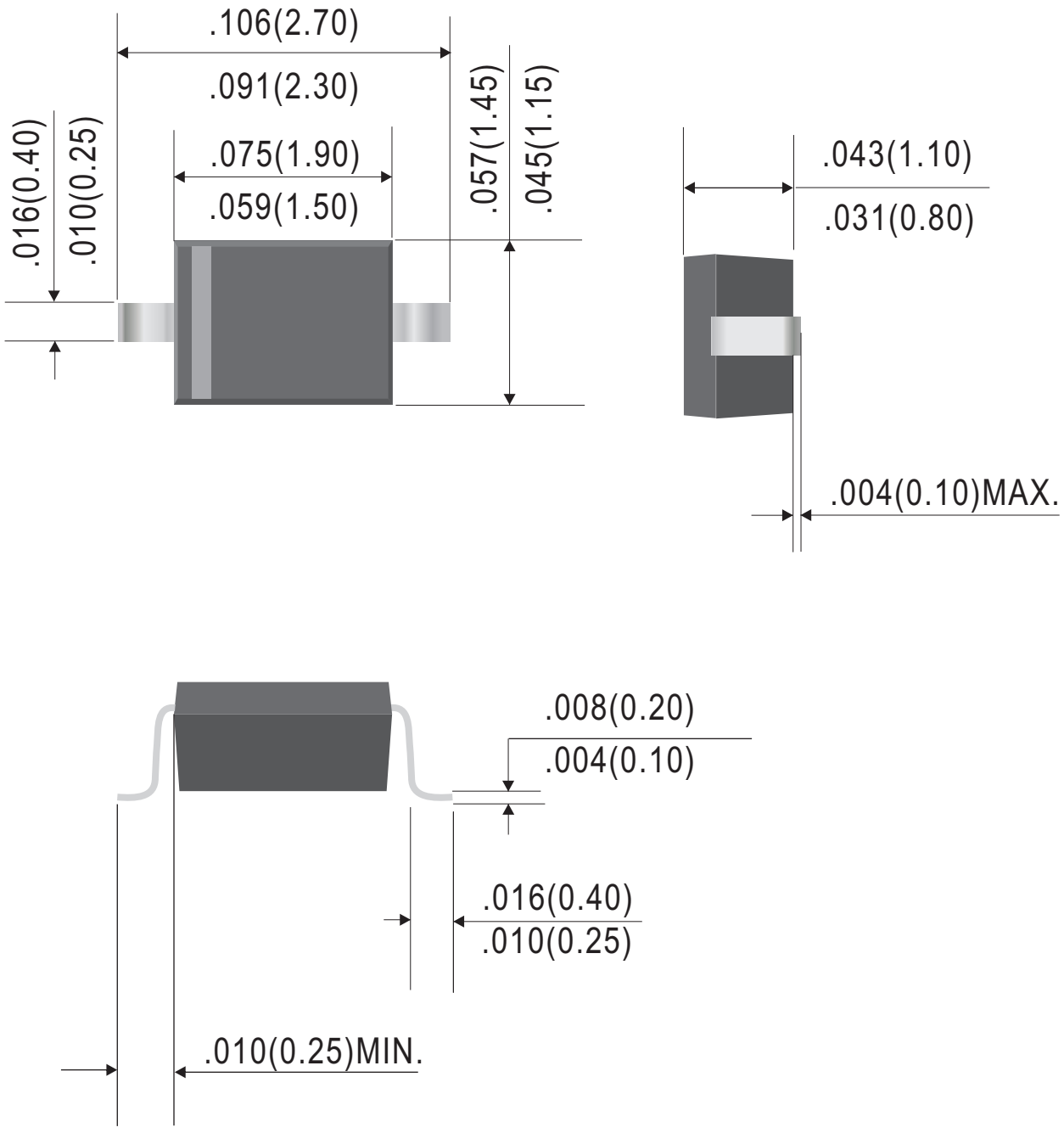


Power Derating Curve



Outline Drawing

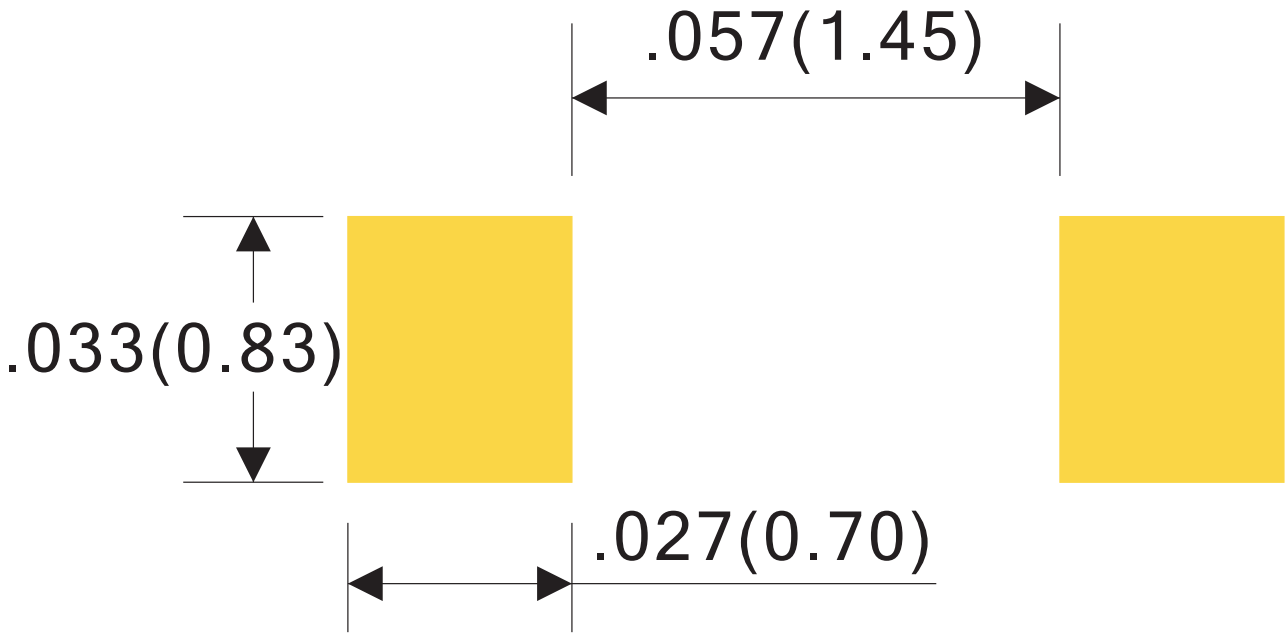
SOD-323



Dimensions in inches and (millimeters)

Rev.C

Suggested Soldering Pad Layout	SOD-323

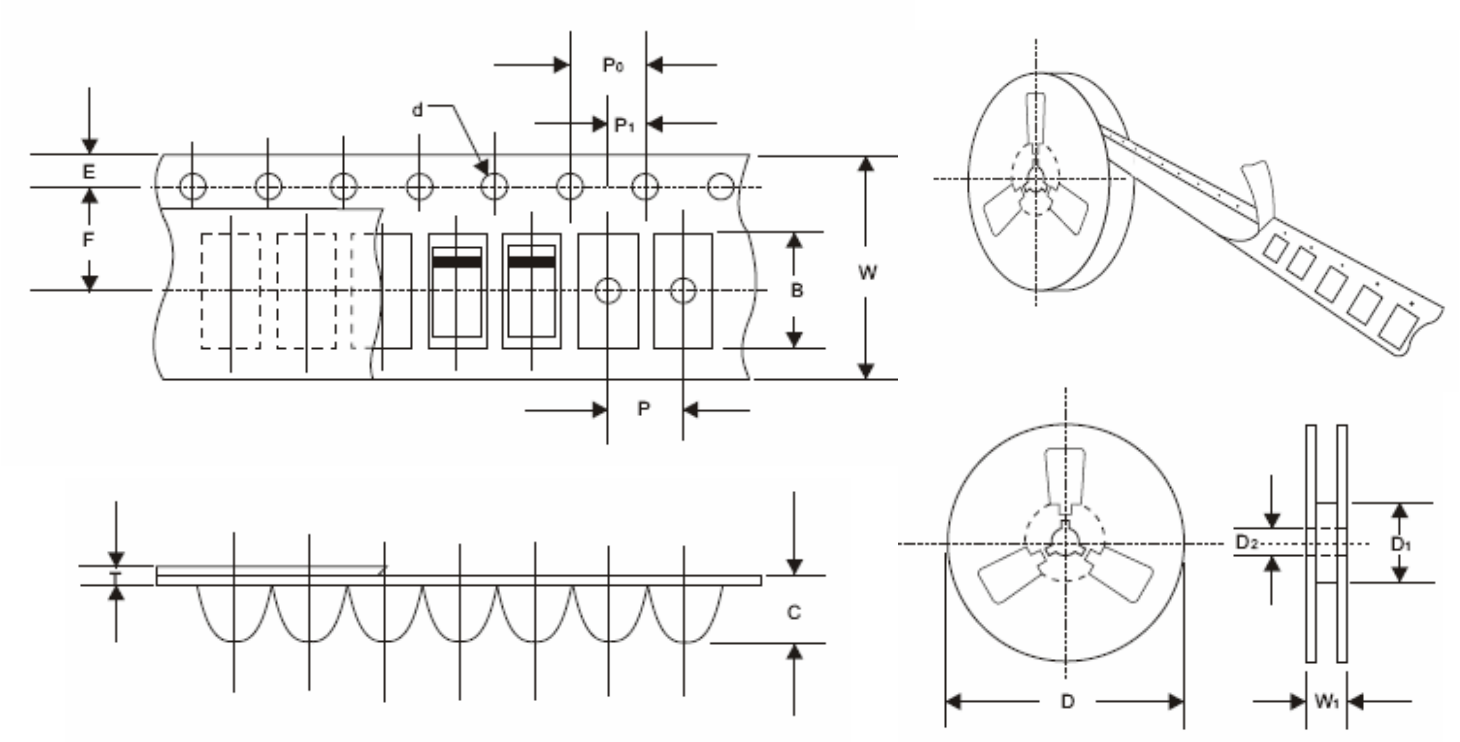


Dimensions in inches and (millimeters)

RevA

Reel Taping Specification - Surface Mount Device/SOD-323

PACKAGE	PER REEL EA	REEL DIA (m/m)	PER BOX EA	PER CARTION EA
SOD-323	3000	178	30000	240,000



ITEM	SYMBOL	SPECIFICATIONS(mm) SOD-323	SPECIFICATIONS(inch) SOD-323
Carrier length	B	4.5max.	0.177max.
Carrier depth	C	2.4max.	0.094max.
Sprocket hole	d	1.55±0.1	0.061±0.004
Reel outside diameter	D	178max.	7max.
Reel inner diameter	D_1	50min.	1.969min.
Feed hole diameter	D_2	13.0±0.2	0.512±0.008
Sprocket hole position	E	1.75±0.1	0.069±0.004
Punch hole position	F	3.5±0.05	0.1378±0.002
Punch hole pitch	P	4.0±0.1	0.157±0.004
Sprocket hole pitch	P_0	4.0±0.1	0.157±0.004
Embossment center	P_1	2.0±0.05	0.079±0.002
Overall tape thickness	T	0.4max.	0.016max.
Tape width	W	8.0±0.3	0.315±0.012
Reel width	W_1	14.4max.	0.567max.

Ordering Information:

Device PN	Packing
Part Number -T(1)G(2)-WS	Tape&Reel: 3 Kpcs/Reel

Note: (1) Packing code, Tape & Reel Packing

(2) RoHS product for packing code suffix ”G”；Halogen free product for packing code suffix “H”

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