



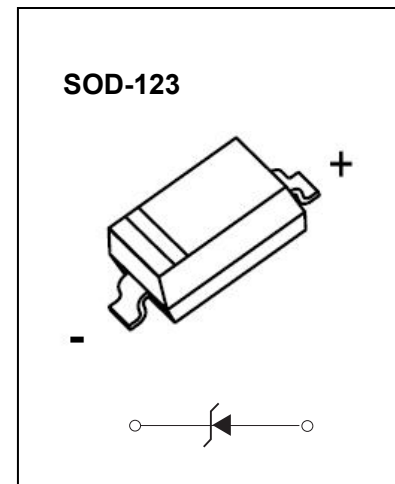
BZT52C2V4-BZT52C8V2

SOD-123 Plastic-Encapsulate Diodes

BZT52C2V4-BZT52C8V2 ZENER DIODE

FEATURES:

- Planar Die Construction
- 350mW Power Dissipation on Ceramic PCB
- General Purpose, Medium Current
- Ideally Suited for Automated Assembly Processes
- Available in Lead Free Version



Maximum Ratings($T_a=25^{\circ}\text{C}$ unless otherwise specified)

Characteristic	Symbol	Value	Unit
Forward Voltage (Note 2) @ $I_F = 10\text{mA}$	V_F	0.9	V
Power Dissipation(Note 1)	P_D	350	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	357	$^{\circ}\text{C/W}$
Junction Temperature	T_J	150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55~+150	$^{\circ}\text{C}$



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ELECTRICAL CHARACTERISTICS

$T_a=25^{\circ}\text{C}$ unless otherwise specified

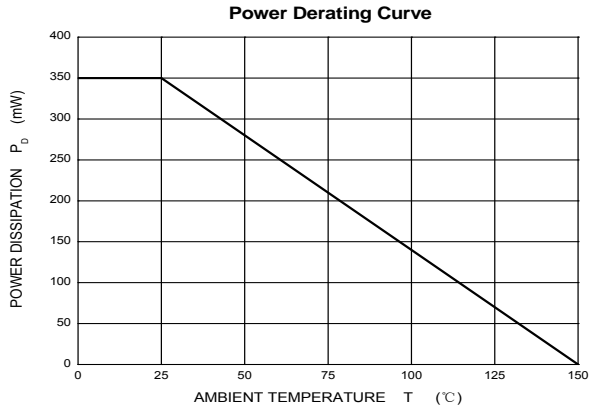
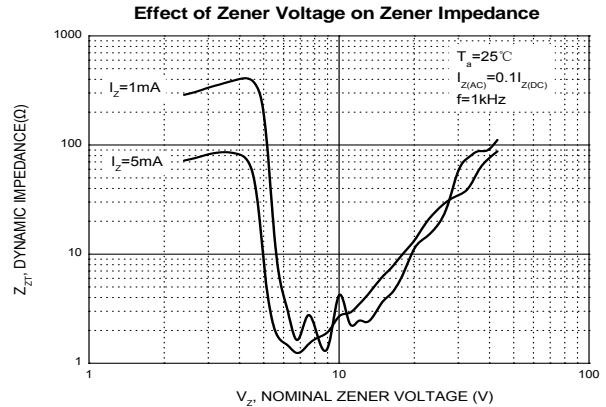
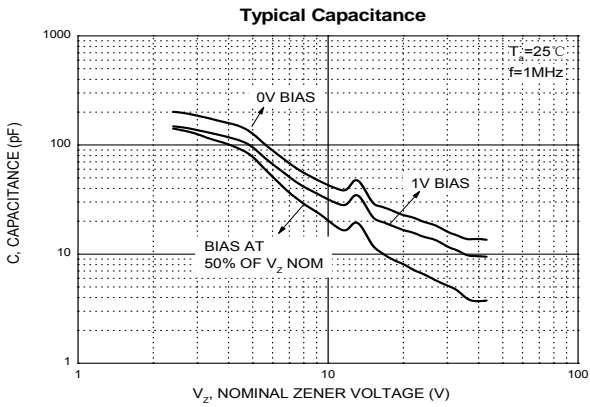
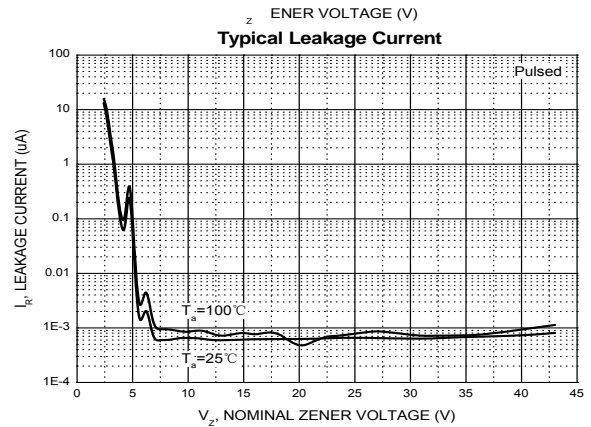
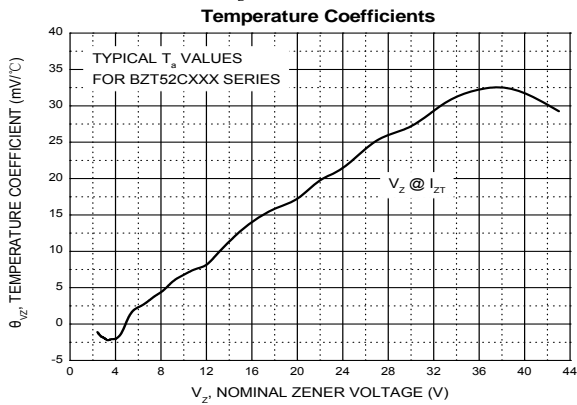
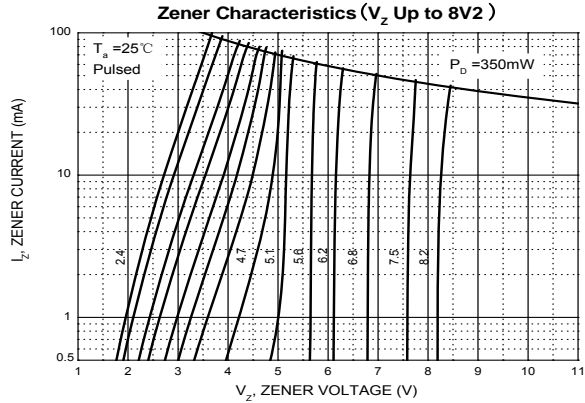
Type Number	Type Code	Zener Voltage Range (Note 2)				Maximum Zener Impedance (Note 3)			Maximum Reverse Current (Note 2)		Typical Temperature Coefficient @ I_{ZTC}		Test Current I_{ZTC}
		$V_Z@I_{ZT}$			I_{ZT}	$Z_{ZT}@I_{ZT}$	$Z_{ZK}@I_{ZK}$	I_{ZK}	I_R	V_R	mV/ $^{\circ}\text{C}$		
		Nom(V)	Min(V)	Max(V)	mA	Ω		mA	μA	V	Min	Max	
BZT52C2V4	WX	2.4	2.26	2.54	5	100	600	1.0	50	1.0	-3.5	0	5
BZT52C2V7	W1	2.7	2.54	2.86	5	100	600	1.0	20	1.0	-3.5	0	5
BZT52C3V0	W2	3.0	2.8	3.2	5	95	600	1.0	10	1.0	-3.5	0	5
BZT52C3V3	W3	3.3	3.1	3.5	5	95	600	1.0	5	1.0	-3.5	0	5
BZT52C3V6	W4	3.6	3.4	3.8	5	90	600	1.0	5	1.0	-3.5	0	5
BZT52C3V9	W5	3.9	3.7	4.1	5	90	600	1.0	3	1.0	-3.5	0	5
BZT52C4V3	W6	4.3	4.08	4.52	5	90	600	1.0	3	1.0	-3.5	0	5
BZT52C4V7	W7	4.7	4.46	4.94	5	80	500	1.0	3	2.0	-3.5	0.2	5
BZT52C5V1	W8	5.1	4.85	5.35	5	60	480	1.0	2	2.0	-2.7	1.2	5
BZT52C5V6	W9	5.6	5.30	5.90	5	40	400	1.0	1	2.0	-2.0	2.5	5
BZT52C6V2	WA	6.2	5.89	6.51	5	10	150	1.0	3	4.0	0.4	3.7	5
BZT52C6V8	WB	6.8	6.46	7.14	5	15	80	1.0	2	4.0	1.2	4.5	5
BZT52C7V5	WC	7.5	7.13	7.9	5	15	80	1.0	1	5.0	2.5	5.3	5
BZT52C8V2	WD	8.2	7.79	8.61	5	15	80	1.0	0.7	5.0	3.2	6.2	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=1kHz



BZT52C2V4-BZT52C8V2

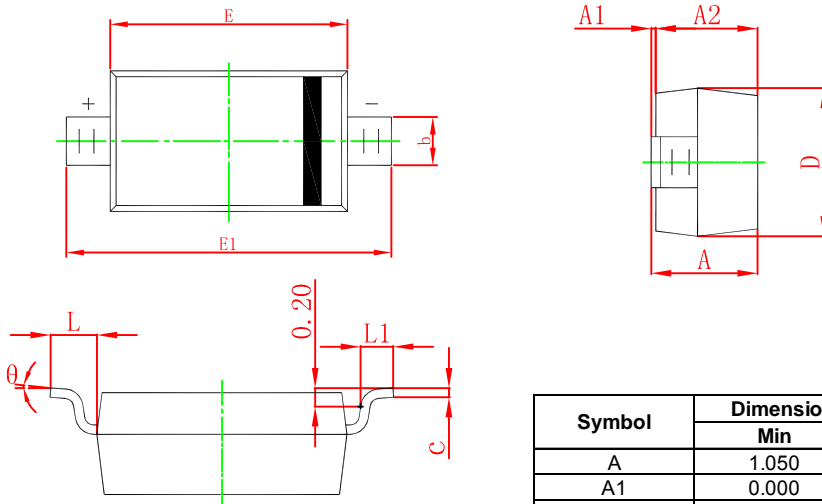
Typical Characteristics





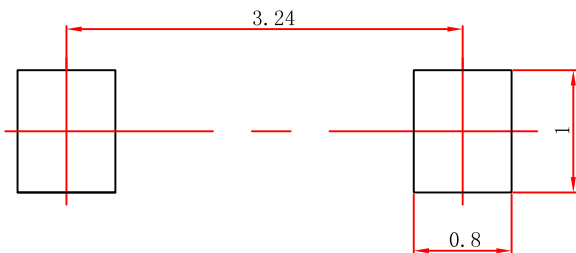
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SOD-123 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500 REF		0.020 REF	
L1	0.250	0.450	0.010	0.018
θ	0°	8°	0°	8°

SOD-123 Suggested Pad Layout



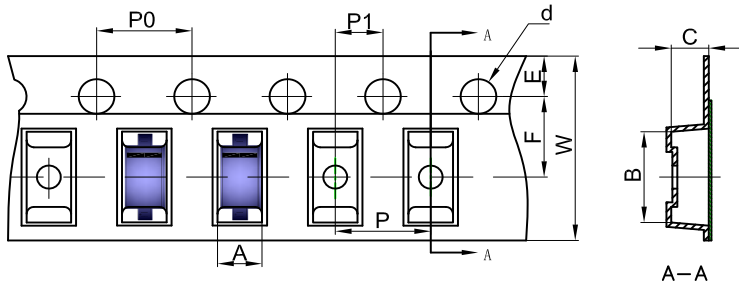
Note:

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



BZT52C2V4-BZT52C8V2

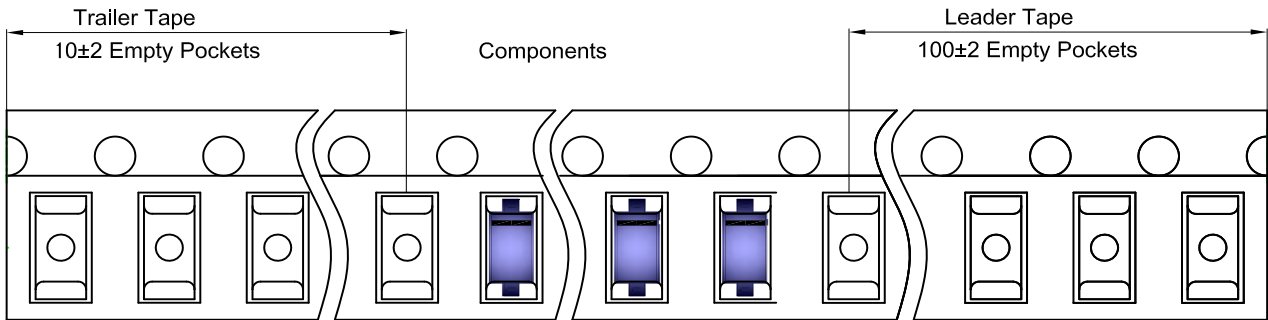
SOD-123 Embossed Carrier Tape



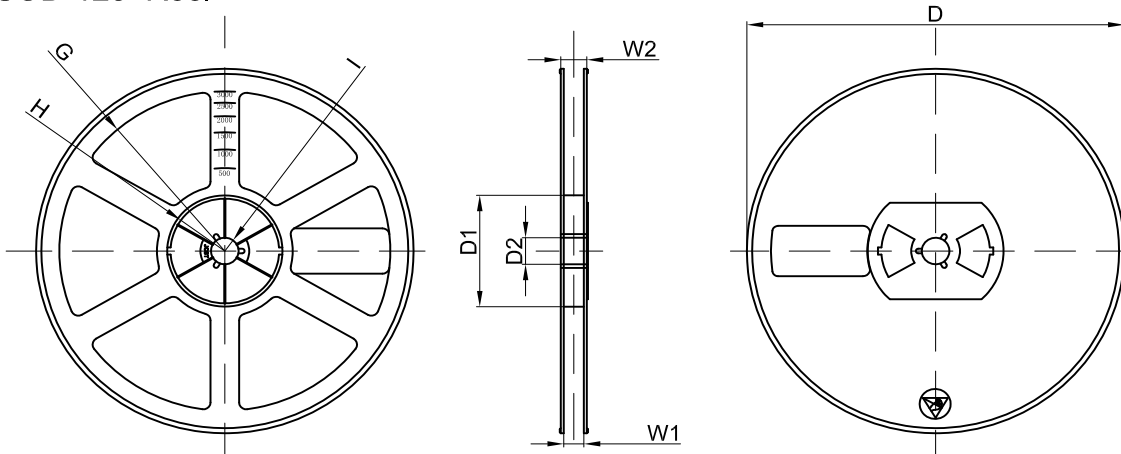
Packaging Description:
 SOD-123 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 3,000 units per 7" or 17.8cm diameter reel. The reels are clear in color and is made of polystyrene plastic (anti-static coated).

Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOD-123	1.85	3.95	1.57	Ø1.55	1.75	3.50	4.00	4.00	2.00	8.00

SOD-123 Tape Leader and Trailer



SOD-123 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	