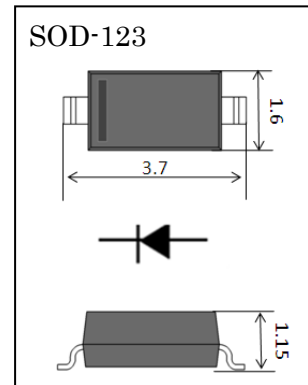


## Zener Diodes / DATA SHEET

### BZT52C2V4–BZT52C75 Series

- ◇ Constant Voltage control
  - ◇ Wide Voltage Range Selection 2.4V to 75V
  - ◇ RoHS compliant / Green EMC
  - ◇ Matte Tin (Sn) Lead finish
  - ◇ Cathode Band / Device marking
- Refer to table list



#### Absolute Maximum Ratings (Ta = 25 °C)

Symbol	Parameter	Value	Units
$P_D$	Power Dissipation	350	mW
$T_J$	Junction Temperature	150	°C
$T_{STG}$	Storage Temperature	-55 to +125	°C
$I_{ZM}$	Maximum Regulator Current	$P_D/V_Z$	mA

#### Electrical Characteristics (Ta = 25 °C)

Type Number	Device Marking	$V_Z$ (V) *1			$I_{ZT}$ mA	$Z_{ZT}@I_{ZT}$ $\Omega$	$Z_{ZK}@I_{ZK}$ $\Omega$	$I_{zk}$ (mA)	$I_R$ ( $\mu$ A)	$V_R$ (V)
		Nom(V)	Min(V)	Max(V)						
BZT52C2V4	WX	2.4	2.28	2.52	5	100	600	1.0	50	1.0
BZT52C2V7	W1	2.7	2.57	2.84	5	100	600	1.0	20	1.0
BZT52C3V0	W2	3.0	2.85	3.15	5	95	600	1.0	10	1.0
BZT52C3V3	W3	3.3	3.14	3.47	5	95	600	1.0	5	1.0
BZT52C3V6	W4	3.6	3.42	3.78	5	90	600	1.0	5	1.0
BZT52C3V9	W5	3.9	3.71	4.10	5	90	600	1.0	3	1.0
BZT52C4V3	W6	4.3	4.09	4.52	5	90	600	1.0	3	1.0
BZT52C4V7	W7	4.7	4.47	4.94	5	80	500	1.0	3	2.0
BZT52C5V1	W8	5.1	4.85	5.36	5	60	480	1.0	2	2.0
BZT52C5V6	W9	5.6	5.32	5.88	5	40	400	1.0	1	2.0
BZT52C6V2	WA	6.2	5.89	6.51	5	10	150	1.0	3	4.0

Continued next page

**Electrical Characteristics (Ta = 25 °C)**

Type Number	Device Marking	Vz (V) *1			I <sub>ZT</sub> mA	Z <sub>ZT</sub> @I <sub>ZT</sub> Ω	Z <sub>ZK</sub> @I <sub>ZK</sub> Ω	I <sub>ZK</sub> (mA)	I <sub>R</sub> (μA)	V <sub>R</sub> (V)
		Nom(V)	Min(V)	Max(V)						
BZT52C6V8	WB	6.8	6.46	7.14	5	15	80	1.0	2	4.0
BZT52C7V5	WC	7.5	7.13	7.88	5	15	80	1.0	1	5.0
BZT52C8V2	WD	8.2	7.79	8.61	5	15	80	1.0	0.7	5.0
BZT52C9V1	WE	9.1	8.65	9.56	5	15	100	1.0	0.5	6.0
BZT52C10	WF	10.0	9.50	10.50	5	20	150	1.0	0.2	7.0
BZT52C11	WG	11.0	10.45	11.55	5	20	150	1.0	0.1	8.0
BZT52C12	WH	12.0	11.40	12.60	5	25	150	1.0	0.1	8.0
BZT52C13	WI	13.0	12.35	13.65	5	30	170	1.0	0.1	8.0
BZT52C15	WJ	15.0	14.25	15.75	5	30	200	1.0	0.1	10.5
BZT52C16	WK	16.0	15.20	16.80	5	40	200	1.0	0.1	11.2
BZT52C18	WL	18.0	17.10	18.90	5	45	225	1.0	0.1	12.6
BZT52C20	WM	20.0	19.00	21.00	5	55	225	1.0	0.1	14.0
BZT52C22	WN	22.0	20.90	23.10	5	55	250	1.0	0.1	15.4
BZT52C24	WO	24.0	22.80	25.20	5	70	250	1.0	0.1	16.8
BZT52C27	WP	27.0	25.65	28.35	2	80	300	0.5	0.1	18.9
BZT52C30	WQ	30.0	28.50	31.50	2	80	300	0.5	0.1	21.0
BZT52C33	WR	33.0	31.35	34.65	2	80	325	0.5	0.1	23.1
BZT52C36	WS	36.0	34.20	37.80	2	90	350	0.5	0.1	25.2
BZT52C39	WT	39.0	37.05	40.95	2	130	350	0.5	0.1	27.3
BZT52C43	WU	43.0	40.85	45.15	2	150	375	0.5	0.05	30.1
BZT52C47	WV	47.0	44.65	49.35	2	170	1000	0.25	0.1	36
BZT52C51	X1	51	48.45	53.55	2	180	1300	0.25	0.1	39
BZT52C56	X2	56	53.20	58.80	2	200	1400	0.25	0.1	43
BZT52C62	X3	62	58.90	65.10	2	225	1400	0.25	0.1	47
BZT52C68	X4	68	64.60	71.40	2	240	1600	0.25	0.1	52
BZT52C75	X5	75	71.25	78.75	2	265	1700	0.25	0.1	56

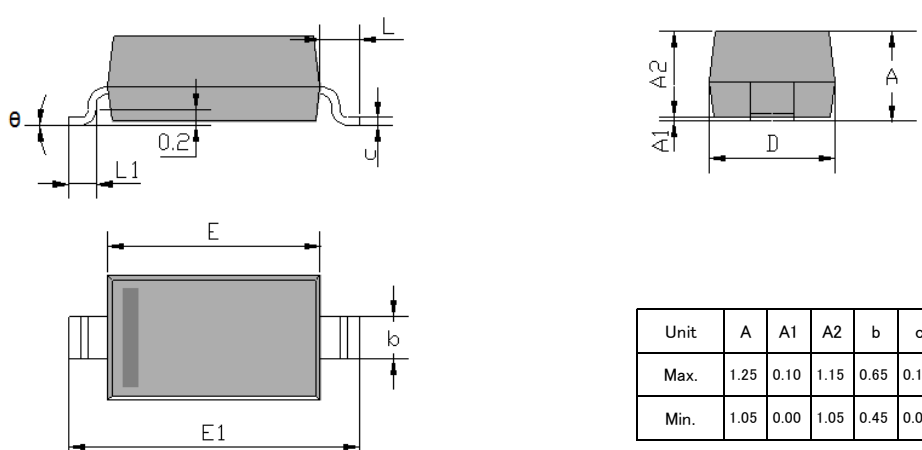
\*1 Pulse width = 10 ms

**Ordering Information**

Device	Package	Shipping	Tape wide	Emboss pitch	Tape specification	Notes
BZT Series	SOD123	Tape & Reel 3000pcs /7" Reel	8 mm	4 mm	Conductive	

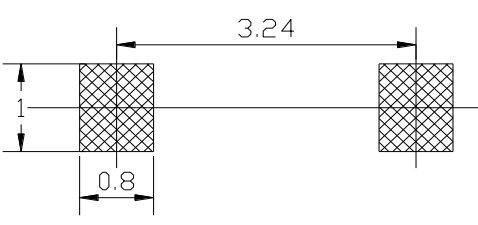
**Package Dimensions**

**Package outline : SOD-123**



Unit	A	A1	A2	b	c	D	E	E1	L	L1	$\theta$
Max.	1.25	0.10	1.15	0.65	0.15	1.70	2.80	3.85	0.500 REF.	0.45	8°
Min.	1.05	0.00	1.05	0.45	0.08	1.50	2.60	3.55		0.25	0°

**SOD123 Package Outline**



**Land Pattern Recommendation**

**Note:**

1. Halogen free,EMC
2. Pb free solder
3. Lead thickness includes solder plating
4. Lead frame: A42
5. Other Tolerance:  $\pm 0.05$
6. Dimensions are exclusive of Burrs,Mold Flash and Tie Bar extrusions
7. Unit: mm