

Surface mount zener diode

BZT52B2V4-BZT52B51

FEATURES

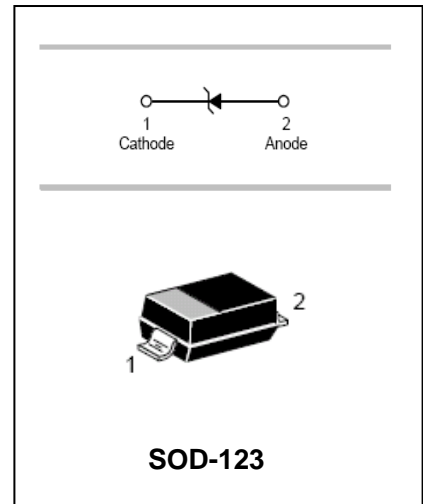
- Planar die construction.
- “B” for $\pm 2\%$ tolerance.
- General purpose, medium current.
- Ideally suited for automated assembly processes.



Lead-free

APPLICATIONS

- Zener diode.
- Ultra-small surface mount package.



ORDERING INFORMATION

Type No.	Marking	Package Code
BZT52B2V4-BZT52B51	See table 2	SOD-123

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Forward Voltage @ I _F =10mA	V _F	0.9	V
Power Dissipation	P _d	500	mW
Thermal resistance, junction to ambient air	R _{θJA}	305	°C/W
Junction temperature	T _j	150	°C
Storage temperature range	T _{stg}	-65-150	°C

- 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. When provided, otherwise, parts are provided with date code only, and type number identifications appears on reel only.
 4. f = 1KHz

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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Type Number	Marking Code	Zener Voltage Range				Maximum Zener Impedance		
		V _Z @I _{ZT}			I _{ZT}	Z _{ZT} @I _{ZT}	Z _{ZK} @I _{ZK}	I _{ZK}
		Nom(V)	Min(V)	Max(V)	mA	Ω		mA
BZT52B2V4	W1•	2.4	2.35	2.45	5	85	600	1.0
BZT52B2V7	W2•	2.7	2.65	2.75	5	83	500	1.0
BZT52B3V0	W3•	3.0	2.94	3.06	5	95	500	1.0
BZT52B3V3	W4•	3.3	3.23	3.37	5	95	500	1.0
BZT52B3V6	W5•	3.6	3.53	3.67	5	95	500	1.0
BZT52B3V9	W6•	3.9	3.82	3.98	5	95	500	1.0
BZT52B4V3	W7•	4.3	4.21	4.39	5	95	500	1.0
BZT52B4V7	W8•	4.7	4.61	4.79	5	78	500	1.0
BZT52B5V1	W9•	5.1	5	5.2	5	60	480	1.0
BZT52B5V6	WA•	5.6	5.49	5.71	5	40	400	1.0
BZT52B6V2	WB•	6.2	6.08	6.32	5	10	200	1.0
BZT52B6V8	WC•	6.8	6.66	6.94	5	8	150	1.0
BZT52B7V5	WD•	7.5	7.35	7.65	5	7	50	1.0
BZT52B8V2	WE•	8.2	8.04	8.36	5	7	50	1.0
BZT52B9V1	WF•	9.1	8.92	9.28	5	10	50	1.0
BZT52B10	WG•	10	9.8	10.2	5	15	70	1.0
BZT52B11	WH•	11	10.8	11.2	5	20	70	1.0
BZT52B12	WI•	12	11.8	12.2	5	20	90	1.0
BZT52B13	WJ•	13	12.7	13.3	5	25	110	1.0
BZT52B15	WK•	15	14.7	15.3	5	30	110	1.0
BZT52B16	WL•	16	15.7	16.3	5	40	170	1.0
BZT52B18	WM•	18	17.6	18.4	5	50	170	1.0
BZT52B20	WN•	20	19.6	20.4	5	50	220	1.0
BZT52B22	WO•	22	21.6	22.4	5	55	220	1.0
BZT52B24	WP•	24	23.5	24.5	5	80	220	1.0
BZT52B27	WQ•	27	26.5	27.5	5	80	250	1.0
BZT52B30	WR•	30	29.4	30.6	5	80	250	1.0
BZT52B33	WS•	33	32.3	33.7	5	80	250	1.0
BZT52B36	WT•	36	35.3	36.7	5	90	250	1.0
BZT52B39	WU•	39	38.2	39.8	5	90	300	1.0
BZT52B43	WV•	43	42.1	43.9	5	100	700	1.0
BZT52B47	WW•	47	46.1	47.9	5	100	750	1.0
BZT52B51	X1•	51	50	52	5	100	750	1.0

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

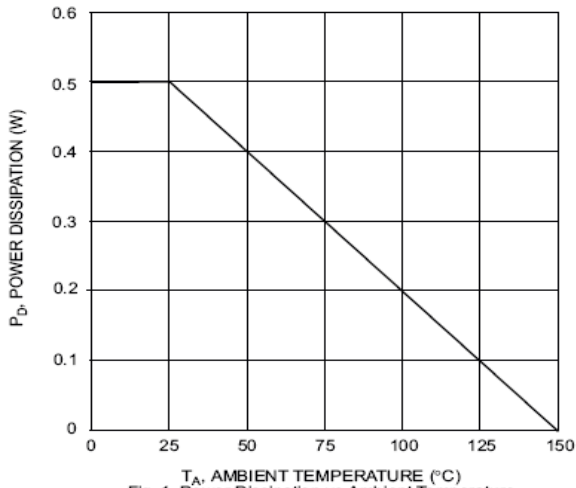


Fig. 1 Power Dissipation vs Ambient Temperature

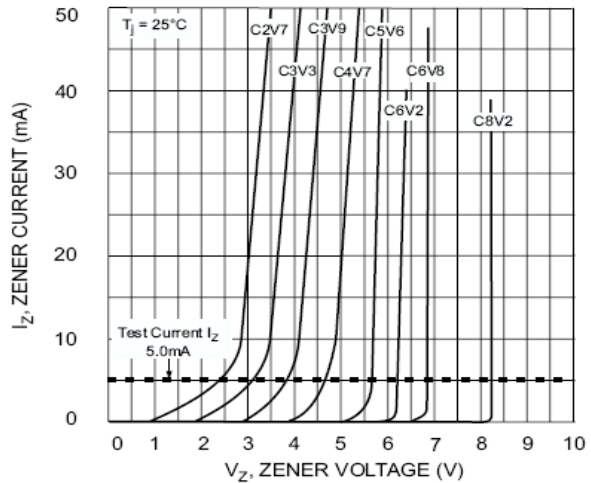


Fig. 2 Zener Breakdown Characteristics

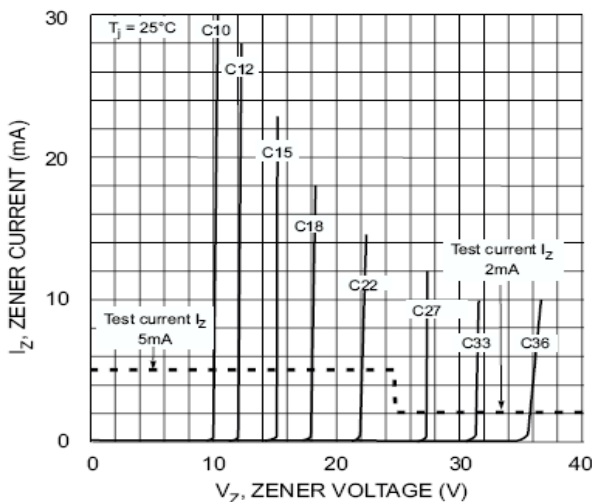


Fig. 3 Zener Breakdown Characteristics

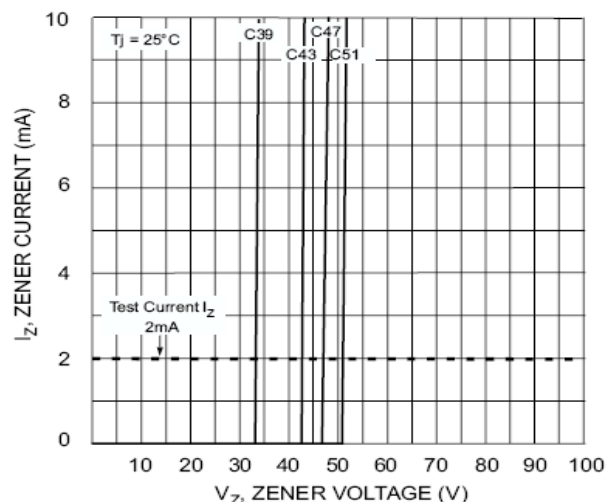


Fig. 4 Zener Breakdown Characteristics

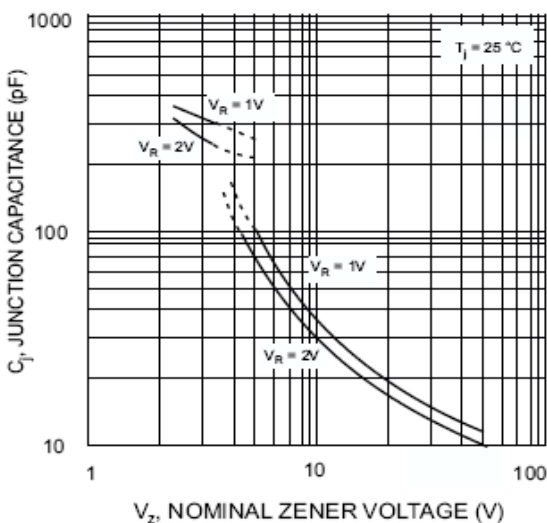


Fig. 5 Junction Capacitance vs Nominal Zener Voltage

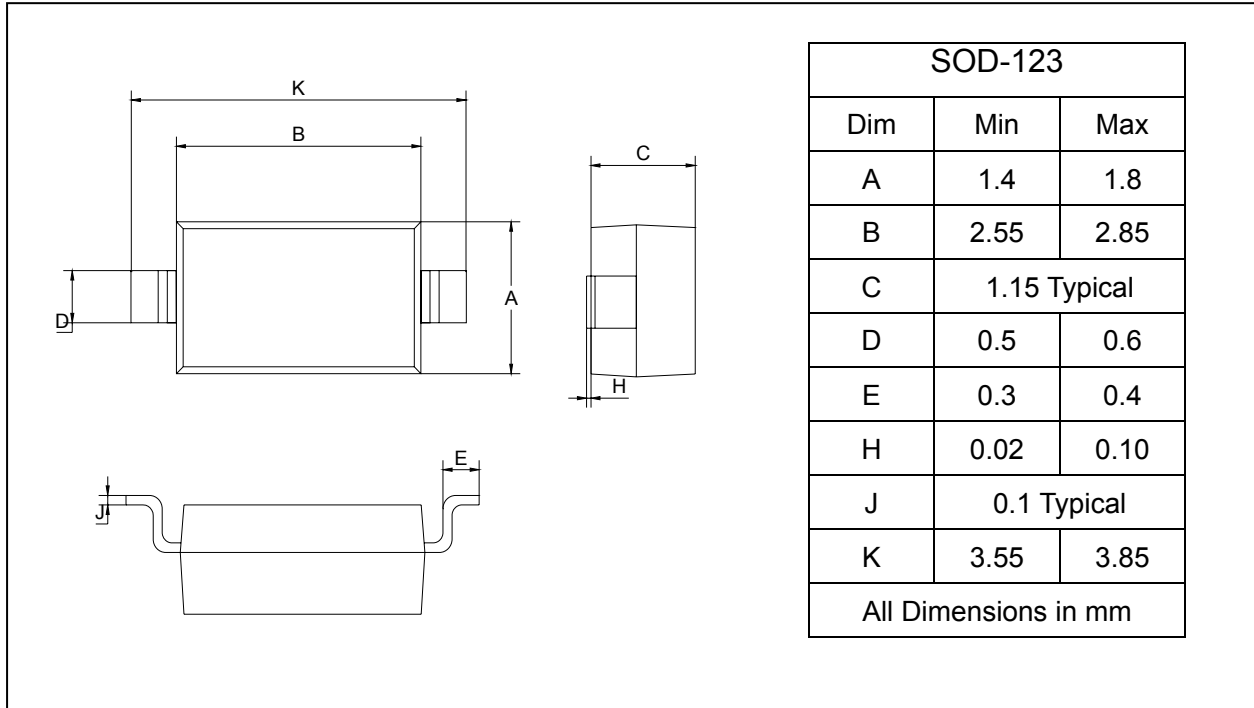
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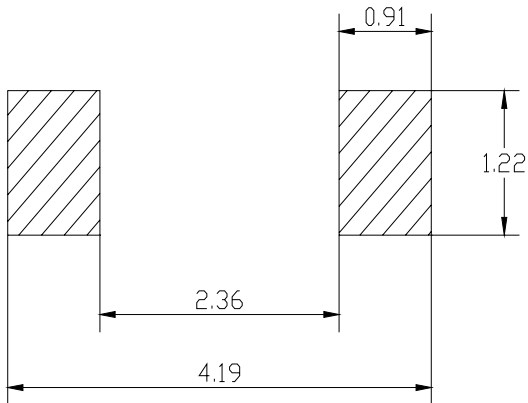
PACKAGE OUTLINE

Plastic surface mounted package

SOD-123



SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
BZT52B2V4-BZT52B51	SOD-123	3000/Tape&Reel