



# BZT52B2V4G THRU BZT52B51VG

Surface Mount Zener Diode

## Features

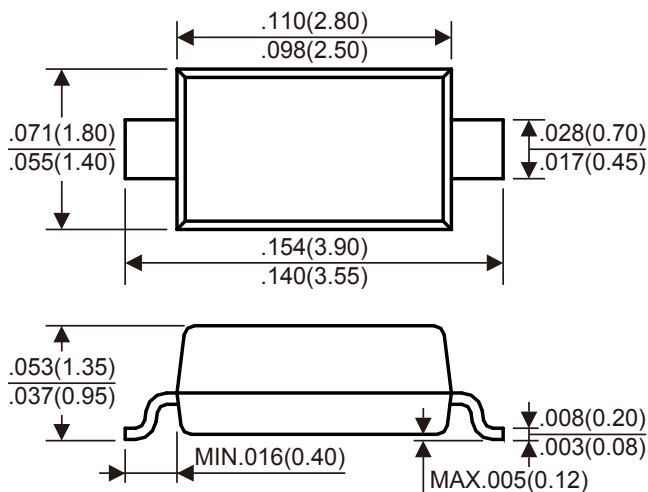
- ★ Ideally suited for automated assembly processes
- ★ High reliability
- ★ Zener voltage tolerance is  $\pm 2\%$
- ★ RoHS-compliant & Halogen-free

## Mechanical Data

- ★ Case: Molded plastic, SOD-123
- ★ Epoxy: UL 94V-0 rate flame retardant
- ★ Terminals: Solderable per MIL-STD-750, method 2026
- ★ Polarity: Color band denotes cathode end
- ★ Mounting position: Any

Zener Voltage 2.4 to 51 V  
Power Dissipation 500 mW

### SOD-123



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS

$T_A = 25^\circ\text{C}$  unless otherwise noted

PARAMETER	SYMBOL	VALUE	UNIT
Power dissipation (Note 1)	$P_D$	500	mW
Forward voltage @ $I_F=10\text{mA}$	$V_F$	0.9	V
Thermal resistance junction to ambient air (Note 2)	$R_{\theta JA}$	338	$^\circ\text{C/W}$
Junction temperature range	$T_J$	-55 to +150	$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-55 to +150	$^\circ\text{C}$

NOTES : (1) Device mounted on ceramic PCB: 7.6mm x 9.4mm x 0.87mm with pad areas 25mm<sup>2</sup>.  
(2) Device mounted on FR-4 PCB with 1 inch copper pad layout.

# BZT52B2V4G THRU BZT52B51VG

Electrical Characteristics( $T_A=25^\circ\text{C}$  unless otherwise noted)

Part Number	Device Marking Code	Zener Voltage $V_Z@I_{ZT}$			Maximum Zener Impedance			Maximum Reverse Leakage Current $I_R@V_R$	
		Min (V)	Max (V)	$I_{ZT}$ (mA)	$Z_{ZT}@I_{ZT}$ ( $\Omega$ )	$Z_{ZK}@I_{ZK}$ ( $\Omega$ )	$I_{ZK}$ (mA)	$I_R$ ( $\mu\text{A}$ )	$V_R$ (V)
BZT52B2V4G	2WX	2.35	2.45	5	100	600	1	50	1.0
BZT52B2V7G	2W1	2.64	2.75	5	100	600	1	20	1.0
BZT52B3V0G	2W2	2.94	3.06	5	95	600	1	10	1.0
BZT52B3V3G	2W3	3.23	3.37	5	95	600	1	5	1.0
BZT52B3V6G	2W4	3.52	3.67	5	90	600	1	5	1.0
BZT52B3V9G	2W5	3.82	3.98	5	90	600	1	3	1.0
BZT52B4V3G	2W6	4.21	4.39	5	90	600	1	3	1.0
BZT52B4V7G	2W7	4.61	4.79	5	80	500	1	3	2.0
BZT52B5V1G	2W8	5.00	5.20	5	60	480	1	2	2.0
BZT52B5V6G	2W9	5.49	5.71	5	40	400	1	1	2.0
BZT52B6V2G	2WA	6.08	6.32	5	10	150	1	3	4.0
BZT52B6V8G	2WB	6.66	6.94	5	15	80	1	2	4.0
BZT52B7V5G	2WC	7.35	7.65	5	15	80	1	1	5.0
BZT52B8V2G	2WD	8.04	8.36	5	15	80	1	0.7	5.0
BZT52B9V1G	2WE	8.92	9.28	5	15	100	1	0.5	6.0
BZT52B10VG	2WF	9.80	10.20	5	20	150	1	0.2	7.0
BZT52B11VG	2WG	10.78	11.22	5	20	150	1	0.1	8.0
BZT52B12VG	2WH	11.76	12.24	5	25	150	1	0.1	8.0
BZT52B13VG	2WI	12.74	13.26	5	30	170	1	0.1	8.0
BZT52B15VG	2WJ	14.70	15.30	5	30	200	1	0.1	10.5
BZT52B16VG	2WK	15.68	16.32	5	40	200	1	0.1	11.2
BZT52B18VG	2WL	17.64	18.36	5	45	225	1	0.1	12.6
BZT52B20VG	2WM	19.60	20.40	5	55	225	1	0.1	14.0
BZT52B22VG	2WN	21.56	22.44	5	55	250	1	0.1	15.4
BZT52B24VG	2WO	23.52	24.48	5	70	250	1	0.1	16.8
BZT52B27VG	2WP	26.46	27.54	2	80	300	0.5	0.1	18.9
BZT52B30VG	2WQ	29.40	30.60	2	80	300	0.5	0.1	21.0
BZT52B33VG	2WR	32.34	33.66	2	80	325	0.5	0.1	23.1
BZT52B36VG	2WS	35.28	36.72	2	90	350	0.5	0.1	25.2
BZT52B39VG	2WT	38.22	39.78	2	130	350	0.5	0.1	27.3
BZT52B43VG	2WU	42.14	43.86	2	100	700	0.5	0.1	32.0
BZT52B47VG	2WV	46.06	47.94	2	100	750	0.5	0.1	35.0
BZT52B51VG	2WW	49.98	52.02	2	100	750	0.5	0.1	38.0

# RATINGS AND CHARACTERISTICS CURVES BZT52B2V4G THRU BZT52B51VG

Fig.1 - Power Derating Curve

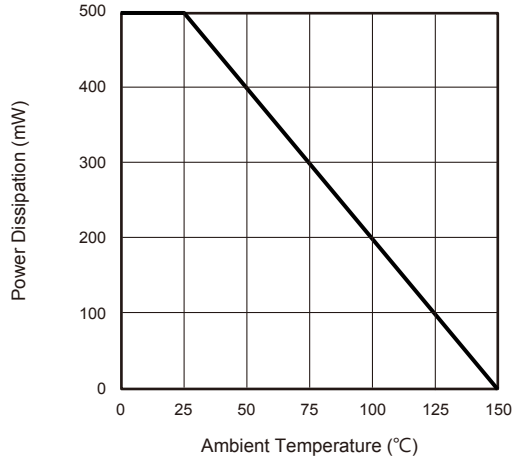


Fig.2 - Typical Forward Characteristics

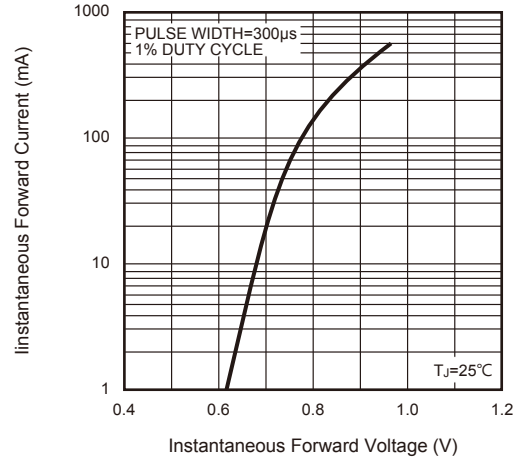


Fig.3 - Zener Breakdown Characteristics

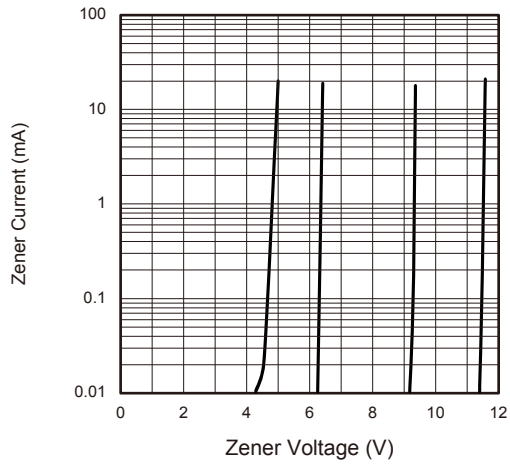


Fig.4 - Zener Breakdown Characteristics

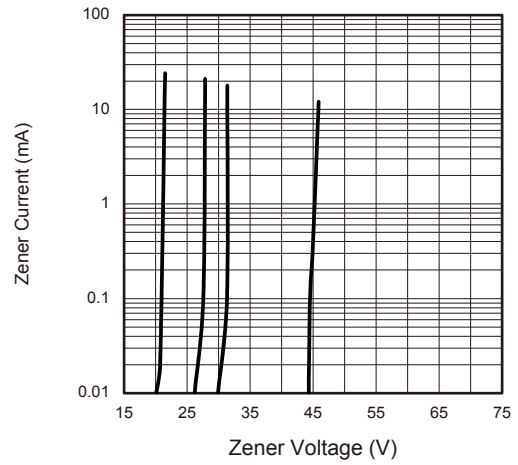


Fig.5 - Typical Capacitance

