BZT52B2V4-BZT52B51

500mW Zener Diode 2.4 to 51 Volts

Features

- Planar die construction.
- “B” for ±2% tolerance.
- General purpose, medium current.
- Ideally suited for automated assembly processes.
- RoHS compliant package

Applications

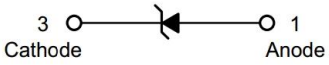
- Zener diode.
- Ultra-small surface mount package.
- Case：SOD-123

Packing & Order Information

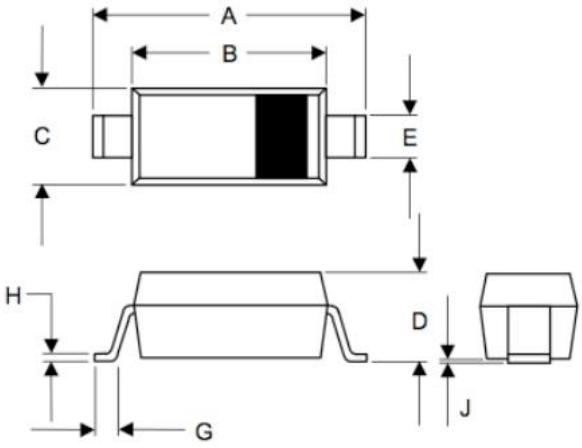
3,000/Reel

RoHS
COMPLIANT

Graphic symbol



SOD123



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.140	.152	3.55	3.85	
B	.100	.112	2.55	2.85	
C	.055	.071	1.40	1.80	
D	-----	.053	-----	1.35	
E	.012	.031	0.30	.78	
G	.006	-----	0.15	-----	
H	-----	.01	-----	.25	
J	-----	.006	-----	.15	

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Maximum Ratings (Tc=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
VF	Forward Voltage @ IF=10mA	0.9	V
PD	Power Dissipation	500	mW
RθJA	Thermal resistance, junction to ambient air	305	˚C/W
TJ	Junction temperature	150	˚C
Tstg	Storage temperature range	-65 to +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 (Rating at 25°C ambient temperature unless otherwise specified)

Type Number	Marking Code	Zener Voltage Range				Maximum Zener Impedance		
		VZ@IZT			IZT	ZZT@IZT	ZZK@IZK	IZK
		Nom(V)	Min(V)	Max(V)	mA	Ω		mA
BZT52B2V4	2W0	2.4	2.35	2.45	5	85	600	1.0
BZT52B2V7	2W1	2.7	2.65	2.75	5	83	500	1.0
BZT52B3V0	2W2	3.0	2.94	3.06	5	95	500	1.0
BZT52B3V3	2W3	3.3	3.23	3.37	5	95	500	1.0
BZT52B3V6	2W4	3.6	3.53	3.67	5	95	500	1.0
BZT52B3V9	2W5	3.9	3.82	3.98	5	95	500	1.0
BZT52B4V3	2W6	4.3	4.21	4.39	5	95	500	1.0
BZT52B4V7	2W7	4.7	4.61	4.79	5	78	500	1.0
BZT52B5V1	2W8	5.1	5	5.2	5	60	480	1.0
BZT52B5V6	2W9	5.6	5.49	5.71	5	40	400	1.0
BZT52B6V2	2WA	6.2	6.08	6.32	5	10	200	1.0
BZT52B6V8	2WB	6.8	6.66	6.94	5	8	150	1.0
BZT52B7V5	2WC	7.5	7.35	7.65	5	7	50	1.0
BZT52B8V2	2WD	8.2	8.04	8.36	5	7	50	1.0
BZT52B9V1	2WE	9.1	8.92	9.28	5	10	50	1.0
BZT52B10	2WF	10	9.8	10.2	5	15	70	1.0
BZT52B11	2WG	11	10.8	11.2	5	20	70	1.0
BZT52B12	2WH	12	11.8	12.2	5	20	90	1.0
BZT52B13	2WI	13	12.7	13.3	5	25	110	1.0
BZT52B15	2WJ	15	14.7	15.3	5	30	110	1.0
BZT52B16	2WK	16	15.7	16.3	5	40	170	1.0
BZT52B18	2WL	18	17.6	18.4	5	50	170	1.0
BZT52B20	2WM	20	19.6	20.4	5	50	220	1.0
BZT52B22	2WN	22	21.6	22.4	5	55	220	1.0
BZT52B24	2WO	24	23.5	24.5	5	80	220	1.0
BZT52B27	2WP	27	26.5	27.5	5	80	250	1.0
BZT52B30	2WQ	30	29.4	30.6	5	80	250	1.0
BZT52B33	2WR	33	32.3	33.7	5	80	250	1.0
BZT52B36	2WS	36	35.3	36.7	5	90	250	1.0
BZT52B39	2WT	39	38.2	39.8	5	90	300	1.0

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ELECTRICAL CHARACTERISTICS (Rating at 25ºC ambient temperature unless otherwise specified)

Type Number	Marking Code	Zener Voltage Range				Maximum Zener Impedance		
		VZ@IZT			IZT	ZZT@IZT	ZZK@IZK	IZK
		Nom(V)	Min(V)	Max(V)	mA	Ω		mA
BZT52B43	2WU	43	42.1	43.9	5	100	700	1.0
BZT52B47	2WV	47	46.1	47.9	5	100	750	1.0
BZT52B51	2WW	51	50	52	5	100	750	1.0

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■RATING AND CHARACTERISTIC CURVES

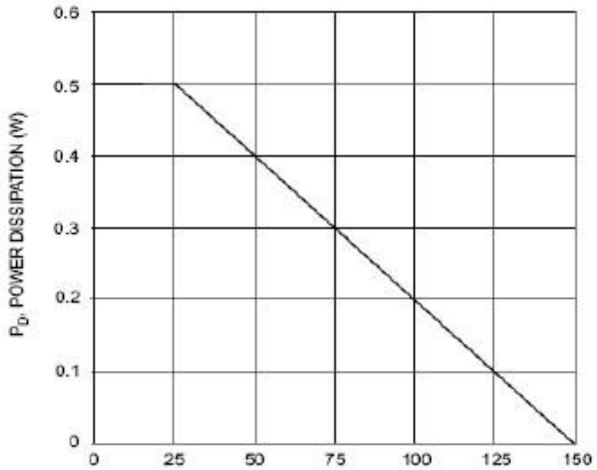

Fig. 1 Power Dissipation vs Ambient Temperature

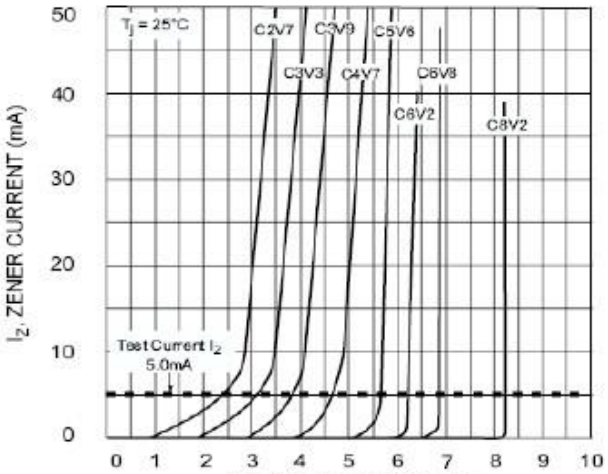

Fig. 2 Zener Breakdown Characteristics

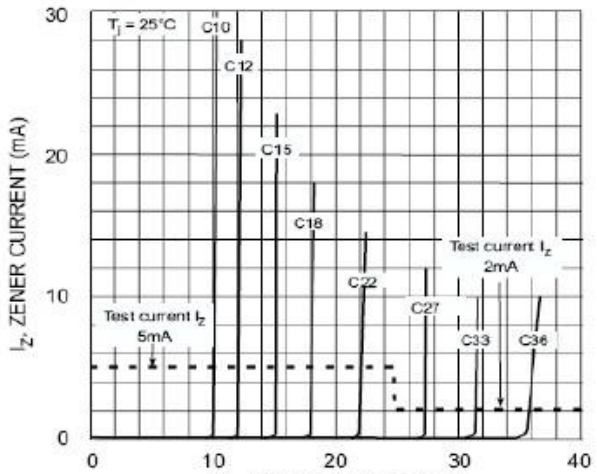

Fig. 3 Zener Breakdown Characteristics

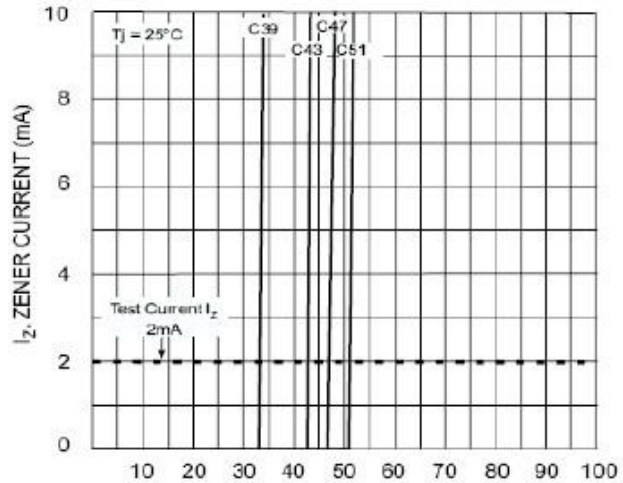

Fig. 4 Zener Breakdown Characteristics

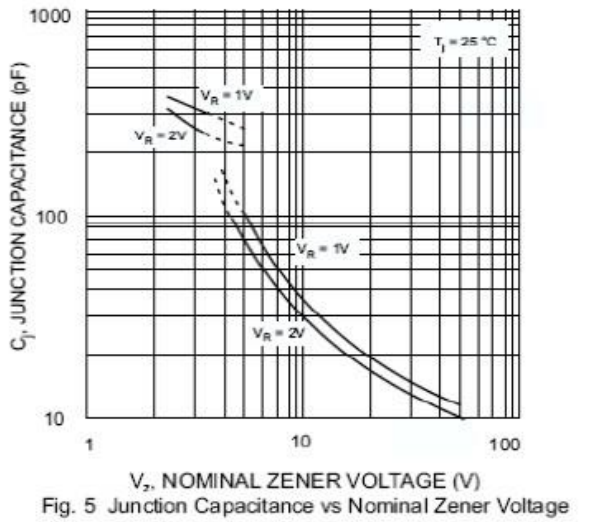

Fig. 5 Junction Capacitance vs Nominal Zener Voltage

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