YENYO

BZT52B2V4S THRU BZT52B43VS

Surface Mount Zener Diode

Zener Voltage 2.4 to 43 V
Power Dissipation 200 mW

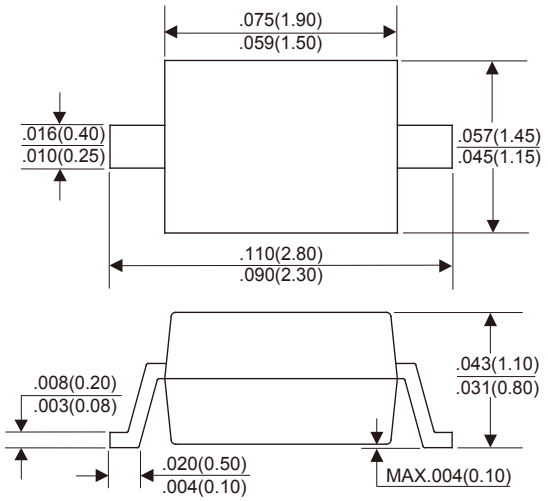
Features

- ✶ Small surface mount package
- ✶ Ideally suited for automated assembly processes
- ✶ Low zener impedance
- ✶ High stability and high reliability

Mechanical Data

- ✶ Case: Molded plastic, SOD-323
- ✶ Epoxy: UL 94V-0 rate flame retardant
- ✶ Terminals: Solderable per MIL-STD-202, method 208
- ✶ Polarity: Color band denotes cathode end
- ✶ Mounting position: Any

SOD-323



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND THERMAL CHARACTERISTICS

Rating at 25℃ ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	VALUE	UNIT
Power dissipation (Note 1)	P_D	200	mW
Forward voltage @ I_F=10mA (Note 2)	V_F	0.9	V
Thermal resistance from junction to ambient	$R_{\theta JA}$	625	℃/W
Junction temperature range	T_J	-65 to +150	℃
Storage temperature range	T_{STG}	-65 to +150	℃

NOTES : (1) Device mounted on ceramic PCB: 7.6mm x 9.4mm x 0.87mm with pad areas 25mm^2
(2) Short duration test pulse used to minimize self-heating effect

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Electrical Characteristics(T_A=25℃ unless otherwise noted)

Part Number	Device Marking Code	Nominal Zener Voltage V_Z@I_{ZT}			Maximum Zener Impendance f = 1kHz			Maximum Reverse Leakage Current I_R@V_R		Temperature Coefficient of Zener Voltage @I_{ZT} = 5mA mV/℃	
		Min(V)	Max(V)	I_{ZT}(mA)	Z_{ZT}@I_{ZT} (Ω)	Z_{ZK}@I_{ZK} (Ω)	I_{ZK} (mA)	I_R (μA)	V_R (V)	Min	Max
BZT52B2V4S	2WX	2.35	2.45	5	100	600	1.0	50	1.0	-3.5	0
BZT52B2V7S	2W1	2.65	2.75	5	100	600	1.0	20	1.0	-3.5	0
BZT52B3V0S	2W2	2.94	3.06	5	95	600	1.0	10	1.0	-3.5	0
BZT52B3V3S	2W3	3.23	3.37	5	95	600	1.0	5	1.0	-3.5	0
BZT52B3V6S	2W4	3.53	3.67	5	90	600	1.0	5	1.0	-3.5	0
BZT52B3V9S	2W5	3.82	3.98	5	90	600	1.0	3	1.0	-3.5	0
BZT52B4V3S	2W6	4.21	4.39	5	90	600	1.0	3	1.0	-3.5	0
BZT52B4V7S	2W7	4.61	4.79	5	80	500	1.0	3	2.0	-3.5	0.2
BZT52B5V1S	2W8	5.00	5.20	5	60	480	1.0	2	2.0	-2.7	1.2
BZT52B5V6S	2W9	5.49	5.71	5	40	400	1.0	1	2.0	-2.0	2.5
BZT52B6V2S	2WA	6.08	6.32	5	10	150	1.0	3	4.0	0.4	3.7
BZT52B6V8S	2WB	6.66	6.94	5	15	80	1.0	2	4.0	1.2	4.5
BZT52B7V5S	2WC	7.35	7.65	5	15	80	1.0	1	5.0	2.5	5.3
BZT52B8V2S	2WD	8.04	8.36	5	15	80	1.0	0.7	5.0	3.2	6.2
BZT52B9V1S	2WE	8.92	9.28	5	15	100	1.0	0.5	6.0	3.8	7.0
BZT52B10VS	2WF	9.80	10.20	5	20	150	1.0	0.2	7.0	4.5	8.0
BZT52B11VS	2WG	10.78	11.22	5	20	150	1.0	0.1	8.0	5.4	9.0
BZT52B12VS	2WH	11.76	12.24	5	25	150	1.0	0.1	8.0	6.0	10.0
BZT52B13VS	2WI	12.74	13.26	5	30	170	1.0	0.1	8.0	7.0	11.0
BZT52B15VS	2WJ	14.70	15.30	5	30	200	1.0	0.1	10.5	9.2	13.0
BZT52B16VS	2WK	15.68	16.32	5	40	200	1.0	0.1	11.2	10.4	14.0
BZT52B18VS	2WL	17.64	18.36	5	45	225	1.0	0.1	12.6	12.4	16.0
BZT52B20VS	2WM	19.60	20.40	5	55	225	1.0	0.1	14.0	14.4	18.0
BZT52B22VS	2WN	21.56	22.44	5	55	250	1.0	0.1	15.4	16.4	20.0
BZT52B24VS	2WO	23.52	24.48	5	70	250	1.0	0.1	16.8	18.4	22.0
BZT52B27VS	2WP	26.46	27.54	2	80	300	0.5	0.1	18.9	21.4	25.3
BZT52B30VS	2WQ	29.40	30.60	2	80	300	0.5	0.1	21.0	24.4	29.4
BZT52B33VS	2WR	32.34	33.66	2	80	325	0.5	0.1	23.1	27.4	33.4
BZT52B36VS	2WS	35.28	36.72	2	90	350	0.5	0.1	25.2	30.4	37.4
BZT52B39VS	2WT	38.22	39.78	2	130	350	0.5	0.1	27.3	33.4	41.2
BZT52B43VS	2WU	41.16	43.84	2	100	700	1.0	0.1	32.0	10.0	12.0

RATINGS AND CHARACTERISTICS CURVES
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Fig.1 - Power Derating Curve

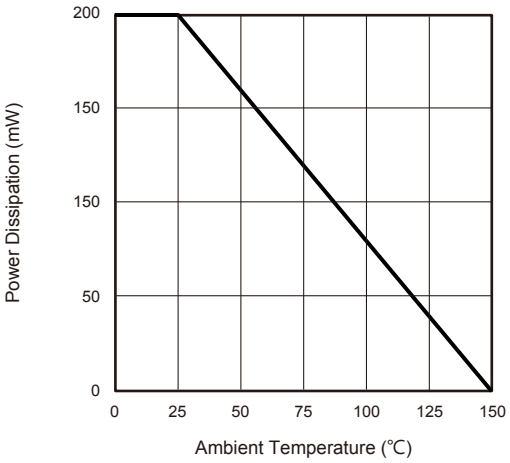

Fig.2 - Typical Zener Breakdown Characteristics

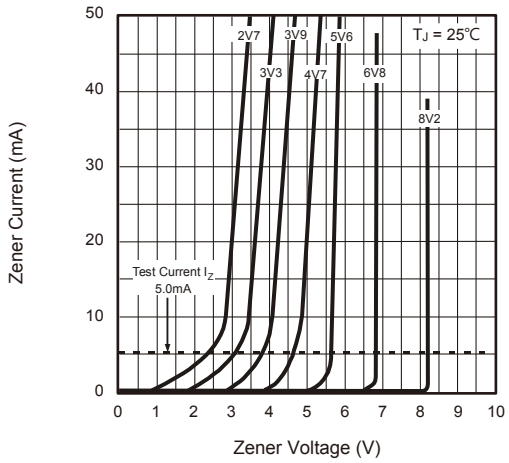

Fig.3 - Typical Zener Breakdown Characteristics

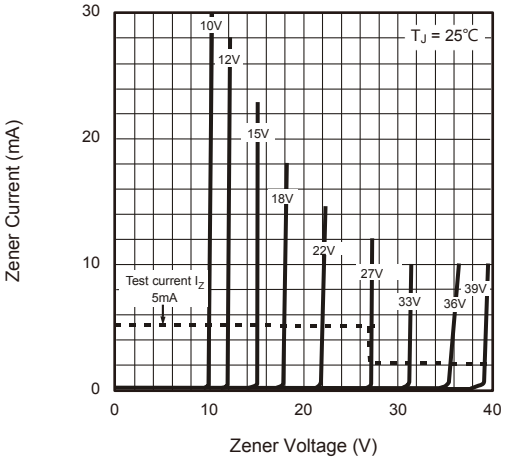

Fig.4 - Typical Total Capacitance vs. Nominal Zener Voltage