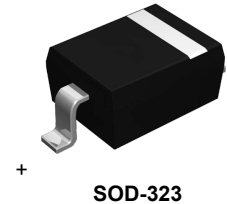


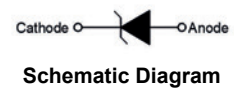
Features

- Low profile package
- Ideal for automated placement
- Low zener impedance
- Power dissipation of 250mW
- High stability and high reliability
- RoHS compliant



Mechanical Data

- Package: SOD-323
- Lead finish: Matte tin
- Case material: "Green" molding compound.
- UL flammability classification rating 94V-0
- Moisture sensitivity: Level 3 per J-STD-020



Applications

- Surge protection
- Voltage stabilization
- Polarity protection

Maximum Ratings (T=25°C, RH=45%-75%, unless otherwise noted)

Parameters	Symbol	Value	Unit
Forward Voltage @ I _F =10mA	V _F	0.9	V
Power Dissipation	P _D	250	mW
Thermal Resistance Junction to Ambient	R _{θJA}	500	°C/W
Operating Junction Temperature	T _J	-55 to +150	°C
Storage Temperature	T _{STG}	-55 to +150	°C

Electrical Characteristics (T=25°C unless otherwise specified)

Part Number	Marking Code	Zener Voltage V _Z @ I _{ZT}			Test Current	Maximum Zener Impedance	Maximum Reverse Current		Maximum Temperature Coefficient
		Min	Nom	Max			I _{ZT}	Z _{ZT} @ I _{ZT}	
		V	V	V	µA	Ω	µA	V	%/°C
BZT52C1L8SL	1V8	1.710	1.8	1.890	500	1200	25	1.0	-0.085
BZT52C2L0SL	NB	1.900	2.0	2.100	500	1100	25	1.0	-0.080
BZT52C2L2SL	NC	2.090	2.2	2.310	500	1000	25	1.0	-0.065
BZT52C2L4SL	ND	2.280	2.4	2.520	500	900	25	1.0	-0.060
BZT52C2L5SL	NE	2.375	2.5	2.625	500	900	10	1.0	-0.060
BZT52C2L7SL	NF	2.565	2.7	2.835	500	900	10	1.0	±0.055
BZT52C2L8SL	NG	2.660	2.8	2.940	500	900	10	1.0	±0.055
BZT52C3L0SL	NH	2.850	3.0	3.150	500	900	5.0	1.0	±0.055
BZT52C3L3SL	NI	3.135	3.3	3.465	500	900	5.0	1.0	±0.055
BZT52C3L6SL	NJ	3.420	3.6	3.780	500	900	5.0	1.0	±0.030
BZT52C3L9SL	NK	3.705	3.9	4.095	500	900	5.0	1.0	±0.030
BZT52C4L3SL	NL	4.085	4.3	4.515	500	900	5.0	1.0	±0.030
BZT52C4L7SL	NM	4.465	4.7	4.935	500	750	1.0	1.5	±0.030
BZT52C5L1SL	NN	4.845	5.1	5.355	500	400	1.0	1.5	±0.030
BZT52C5L6SL	NO	5.320	5.6	5.880	500	325	1.0	2.0	+0.038
BZT52C6L2SL	NP	5.890	6.2	6.510	500	90	1.0	2.0	+0.045
BZT52C6L8SL	NQ	6.460	6.8	7.140	500	60	1.0	3.5	+0.050
BZT52C7L5SL	NR	7.125	7.5	7.875	500	60	1.0	3.5	+0.058
BZT52C8L2SL	NS	7.790	8.2	8.610	500	60	1.0	6.0	+0.062
BZT52C9L1SL	NT	8.645	9.1	9.555	500	60	1.0	6.0	+0.068
BZT52C10SL	NU	9.50	10	10.50	500	80	1.0	8.0	+0.075
BZT52C11SL	NV	10.45	11	11.55	500	80	1.0	8.0	+0.076
BZT52C12SL	NW	11.40	12	12.60	500	80	1.0	10.5	+0.077
BZT52C13SL	NX	12.35	13	13.65	500	80	1.0	10.5	+0.079
BZT52C15SL	NY	14.25	15	15.75	500	80	1.0	11.5	+0.082
BZT52C16SL	NZ	15.20	16	16.80	500	80	1.0	14	+0.083
BZT52C18SL	N0	17.10	18	18.90	500	80	1.0	16	+0.085
BZT52C20SL	N1	19.00	20	21.00	500	100	1.0	18	+0.086
BZT52C22SL	N2	20.90	22	23.10	500	100	1.0	20	+0.087
BZT52C24SL	N3	22.80	24	25.20	500	120	1.0	22	+0.088
BZT52C27SL	N4	25.65	27	28.35	500	150	1.0	24	+0.090
BZT52C30SL	N5	28.50	30	31.50	500	200	1.0	27	+0.091
BZT52C33SL	N6	31.35	33	34.65	500	250	1.0	30	+0.092
BZT52C36SL	N7	34.20	36	37.80	500	300	1.0	33	+0.093
BZT52C39SL	N8	37.05	39	40.95	500	350	1.0	36	+0.094
BZT52C43SL	N9	40.85	43	45.15	500	400	1.0	40	+0.095
BZT52C47SL	N10	44.65	47	49.35	500	450	1.0	44	+0.095

Typical Characteristics Curves

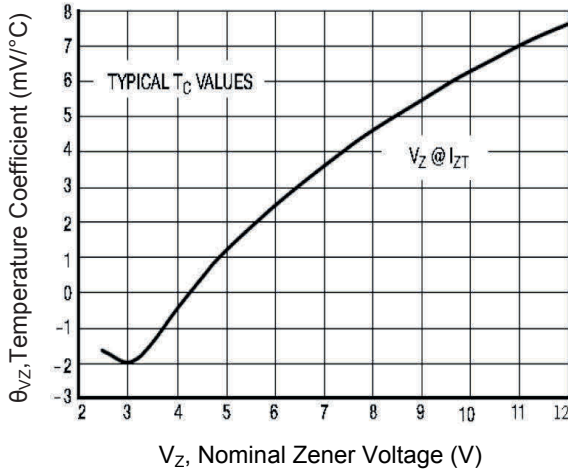


Figure 1. Temperature Coefficient
 (Temperature Range - 55°C to +150°C)

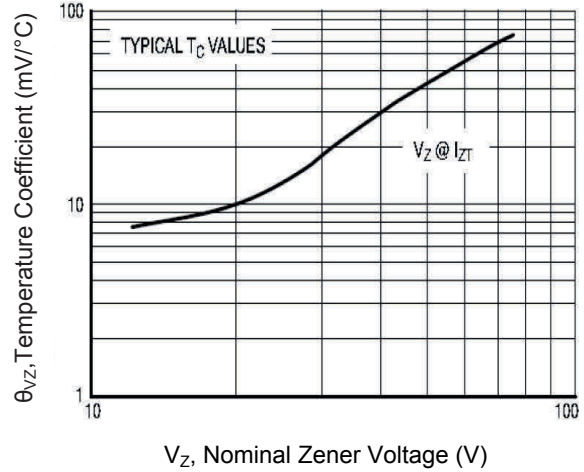


Figure 2. Temperature Coefficient
 (Temperature Range - 55°C to +150°C)

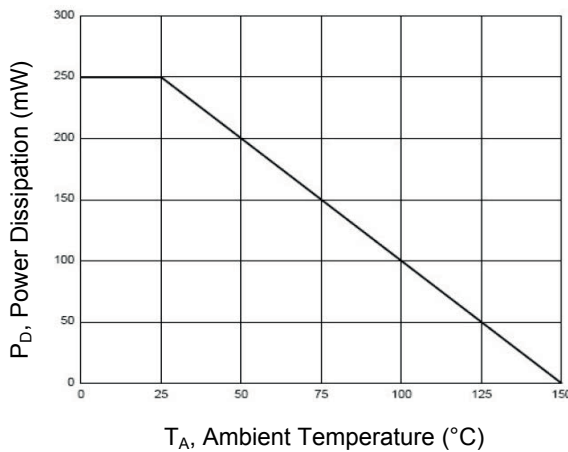


Figure 3. Steady State Power Derating

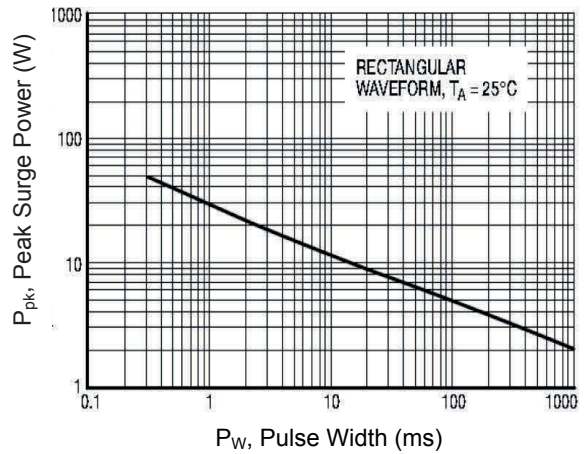


Figure 4. Maximum Non-Repetitive Surge Power

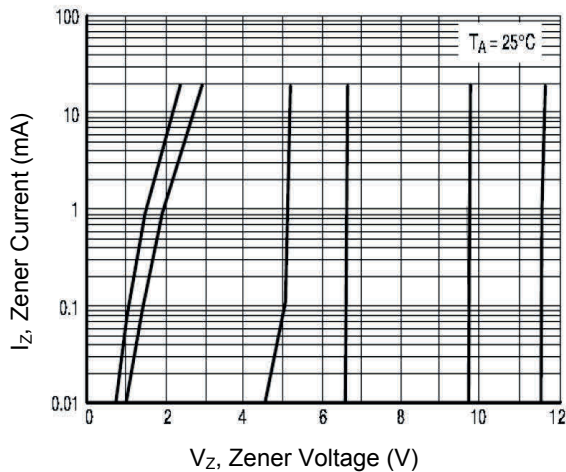


Figure 5. Zener Voltage Versus Zener Current
 (V_Z Up to 12V)

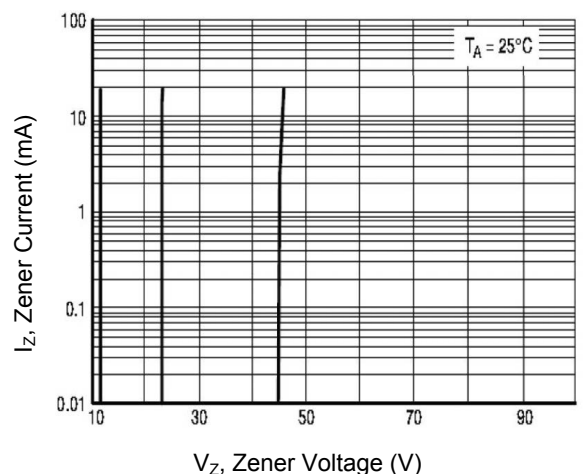
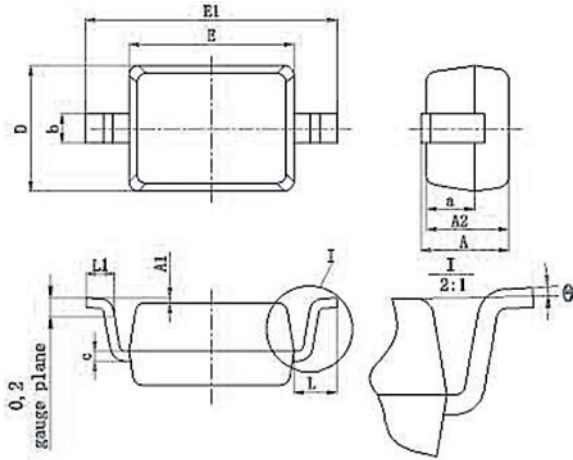


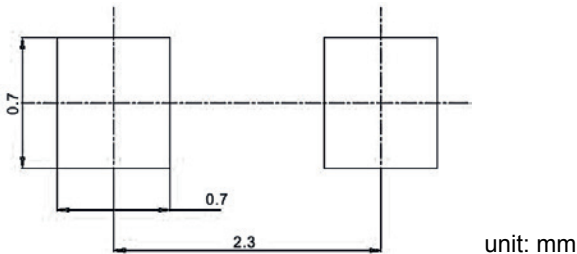
Figure 6. Zener Voltage Versus Zener Current
 (V_Z 12V to 47V)

Package Outline Dimensions (SOD-323)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.800	1.050	0.031	0.041
A1	0.000	0.100	0.000	0.004
A2	0.800	0.950	0.031	0.037
a	0.500 REF		0.020 REF	
D	1.200	1.400	0.047	0.055
E	1.600	1.800	0.063	0.071
E1	2.500	2.750	0.098	0.108
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
L	0.475 REF		0.019 REF	
L1	0.250	0.450	0.010	0.018
θ	0°	8°	0°	8°

Recommended Pad Layout



Order Information

Device	Package	Carrier	Quantity
BZT52CxxSL	SOD-323	Tape & Reel	3,000pcs / Reel