

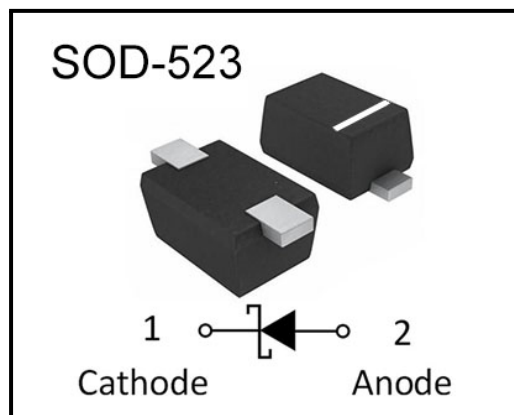
BZT52CxxT

Zener Diodes

Features

- Low Zener Impedance
- Power Dissipation of 200mW
- High Stability and High Reliability

Package



General Description

- Case: molded plastic
- Polarity: Color band denotes cathode
- Package: SOD-523 Plastic Package
- Epoxy UL: 94V-0

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

Symbol	Parameter	Limit	Unit
P_D	DC Power Dissipation	200	mW
V_F	Maximum Forward Voltage @ $I_F=10\text{mA}$	0.9	V
T_J	Junction Temperature	150	$^{\circ}\text{C}$
T_{STG}	Storage Temperature Range	-55 to +150	$^{\circ}\text{C}$



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

Device	Marking	Zener Voltage Range				Maximum Zener Impedance			Maximum Reverse Current		Typical Temperature coefficient		Test Current
		$V_Z@I_{ZT}$			I_{ZT}	$Z_{ZT}@I_{ZT}$	$Z_{ZK}@I_{ZK}$	I_{ZK}	I_R	V_R	@ $I_{ZTC}=mV/^{\circ}\text{C}$		I_{ZTC}
		Nom(V)	Min(V)	Max(V)	mA	Ω		mA	μA	V	Min	Max	mA
BZT52C2V4T	Z11	2.4	2.2	2.6	5	100	600	1.0	50	1.0	-3.5	0	5
BZT52C2V7T	Z12	2.7	2.5	2.9	5	100	600	1.0	20	1.0	-3.5	0	5
BZT52C3V0T	Z13	3.0	2.8	3.2	5	100	600	1.0	10	1.0	-3.5	0	5
BZT52C3V3T	Z14	3.3	3.1	3.5	5	95	600	1.0	5	1.0	-3.5	0	5
BZT52C3V6T	Z15	3.6	3.4	3.8	5	90	600	1.0	5	1.0	-3.5	0	5
BZT52C3V9T	Z16	3.9	3.7	4.1	5	90	600	1.0	3	1.0	-3.5	0	5
BZT52C4V3T	Z17	4.3	4.0	4.6	5	90	600	1.0	3	1.0	-3.5	0	5
BZT52C4V7T	Z1	4.7	4.4	5.0	5	80	500	1.0	3	2.0	-3.5	0.2	5
BZT52C5V1T	Z2	5.1	4.8	5.4	5	60	480	1.0	2	2.0	-2.7	1.2	5
BZT52C5V6T	Z3	5.6	5.2	6.0	5	40	400	1.0	1	2.0	-2.0	2.5	5
BZT52C6V2T	Z4	6.2	5.8	6.6	5	10	150	1.0	3	4.0	0.4	3.7	5
BZT52C6V8T	Z5	6.8	6.4	7.2	5	15	80	1.0	2	4.0	1.2	4.5	5
BZT52C7V5T	Z6	7.5	7.0	7.9	5	15	80	1.0	1	5.0	2.5	5.3	5
BZT52C8V2T	Z7	8.2	7.7	8.7	5	15	80	1.0	0.7	5.0	3.2	6.2	5
BZT52C9V1T	Z8	9.1	8.5	9.6	5	15	100	1.0	0.5	6.0	3.8	7.0	5
BZT52C10T	Z9	10	9.4	10.6	5	20	150	1.0	0.2	7.0	4.5	8.0	5
BZT52C11T	Y1	11	10.4	11.6	5	20	150	1.0	0.1	8.0	5.4	9.0	5
BZT52C12T	Y2	12	11.4	12.7	5	25	150	1.0	0.1	8.0	6.0	10.0	5
BZT52C13T	Y3	13	12.4	14.1	5	30	170	1.0	0.1	8.0	7.0	11.0	5
BZT52C15T	Y4	15	13.8	15.6	5	30	200	1.0	0.1	10.5	9.2	13.0	5
BZT52C16T	Y5	16	15.3	17.1	5	40	200	1.0	0.1	11.2	10.4	14.0	5
BZT52C18T	Y6	18	16.8	19.1	5	45	225	1.0	0.1	12.6	12.4	16.0	5
BZT52C20T	Y7	20	18.8	21.2	5	55	225	1.0	0.1	14.0	14.4	18.0	5
BZT52C22T	Y8	22	20.8	23.3	5	55	250	1.0	0.1	15.4	16.4	20.0	5
BZT52C24T	Y9	24	22.8	25.6	5	70	250	1.0	0.1	16.8	18.4	22.0	5
BZT52C27T	Y10	27	25.1	28.9	2	80	300	0.5	0.1	18.9	21.4	25.3	2
BZT52C30T	Y11	30	28.0	32.0	2	80	300	0.5	0.1	21.0	24.4	29.4	2
BZT52C33T	Y12	33	31.0	35.0	2	80	325	0.5	0.1	23.1	27.4	33.4	2
BZT52C36T	Y13	36	34.0	38.0	2	90	350	0.5	0.1	25.2	30.4	37.4	2
BZT52C39T	Y14	39	37.0	41.0	2	130	350	0.5	0.1	27.3	33.4	41.2	2
BZT52C43T	Y15	43	40.0	46.0	2	100	700	1.0	0.1	32.0	10.0	12.0	5
BZT52C47T	Y16	47	44.0	50.0	2	100	750	1.0	0.1	35.0	10.0	12.0	5
BZT52C51T	Y17	51	48.0	54.0	2	100	750	1.0	0.1	38.0	10.0	12.0	5



Typical Performance Characteristics($T_J=25^\circ$, unless otherwise noted)

Figure 1: Zener Characteristics(V_Z up to 10V)

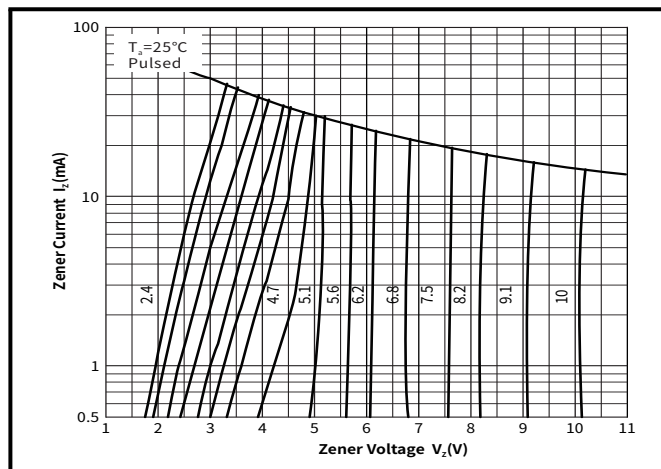


Figure 2: Zener Characteristics(11V up to 43V)

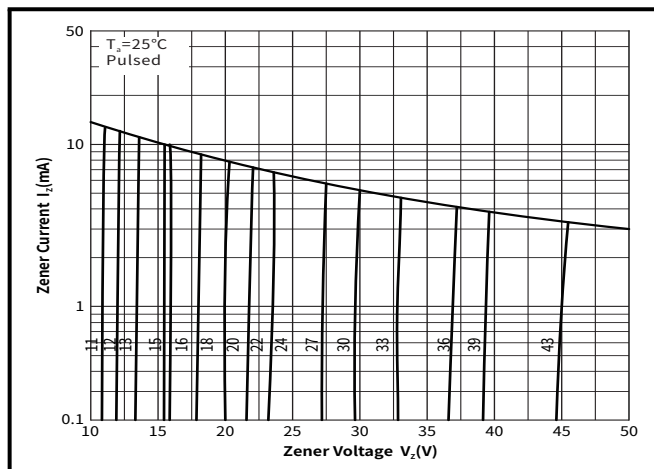


Figure 3: Temperature Capacitance

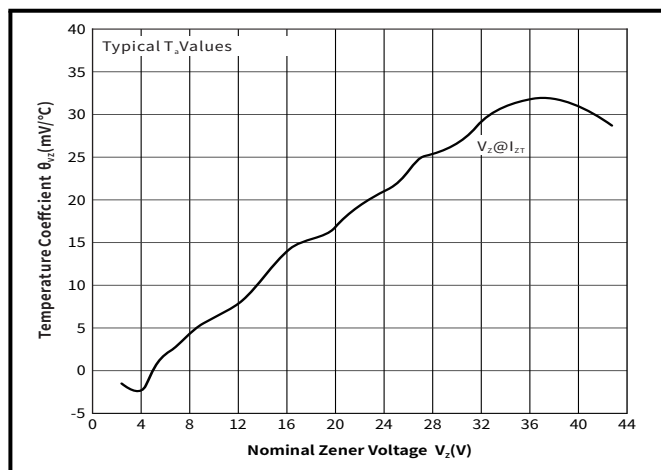


Figure 4: Typical Leakage Current

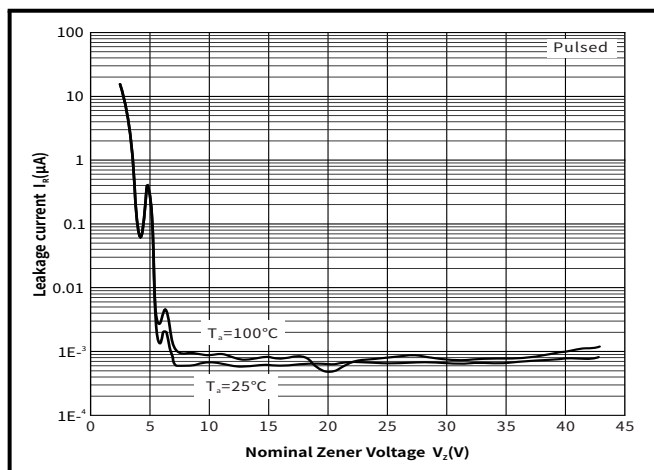


Figure 5: Typical Capacitance

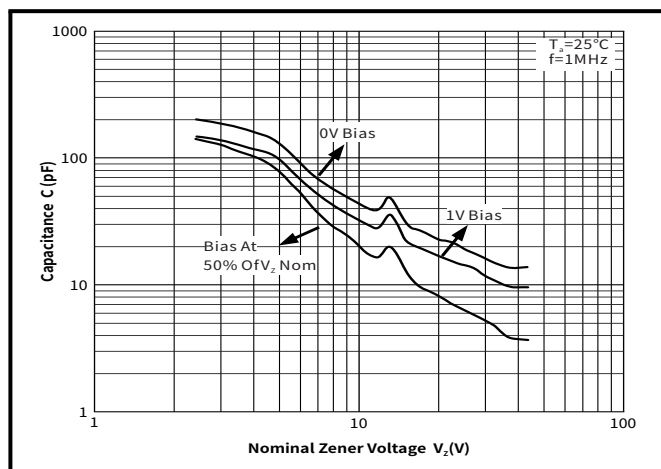
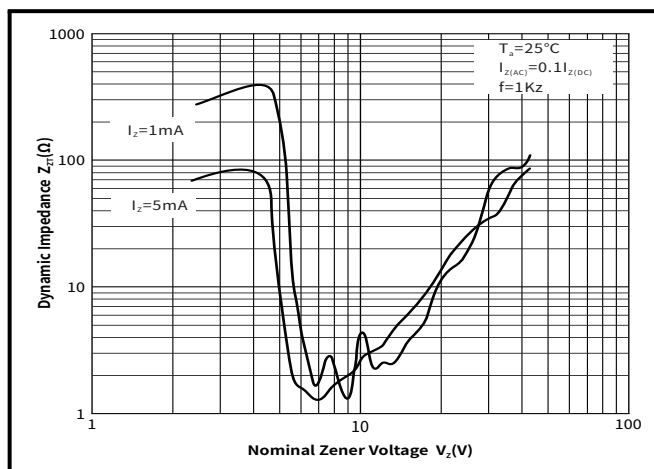


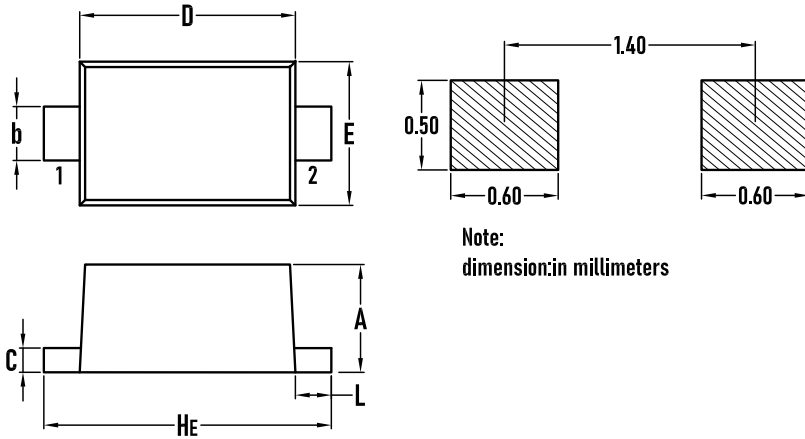
Figure 6: Effect of Zener Voltage on Zener Impedance



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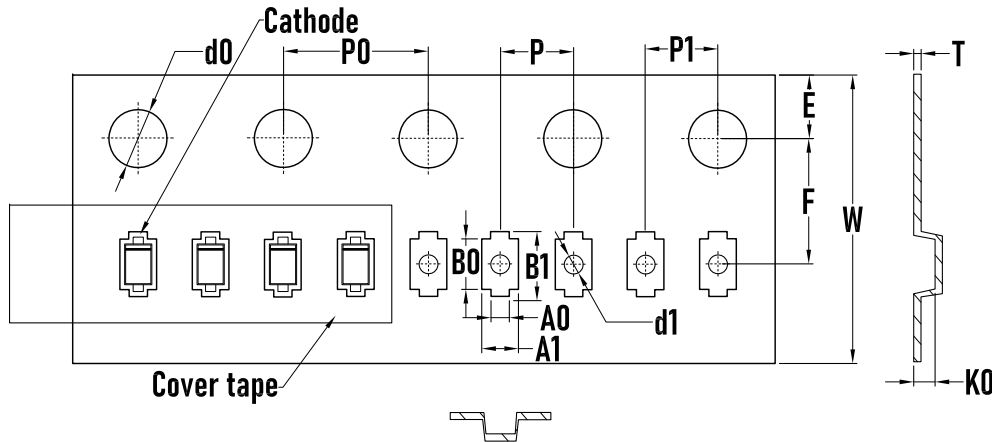
Zener Diodes

Outline Drawing - SOD-523



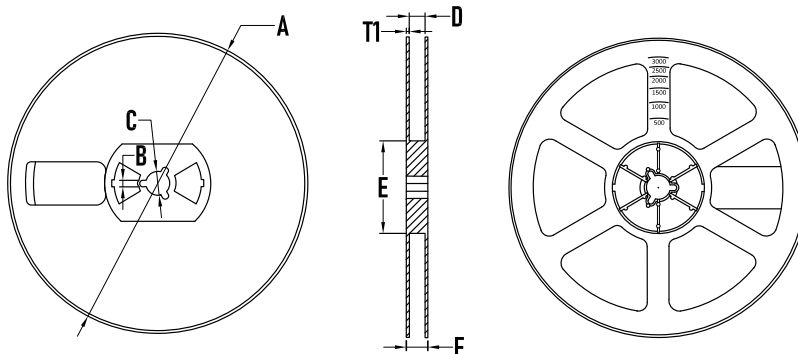
SYMBOL	MILLIMETER		INCHES	
	MIN.	MAX.	MIN.	MAX.
A	0.50	0.70	0.020	0.028
b	0.25	0.35	0.010	0.014
C	0.07	0.20	0.0028	0.0079
D	1.10	1.30	0.043	0.051
E	0.70	0.90	0.028	0.035
H _E	1.50	1.70	0.059	0.067
L	0.15	0.25	0.006	0.010

Packaging Tape - SOD-523



SYMBOL	MILLIMETER
A0	0.50±0.10
A1	1.00±0.10
B0	1.30±0.10
B1	1.80±0.10
d0	1.55±0.10
d1	0.50±0.05
E	1.75±0.10
F	3.50±0.10
K0	0.65±0.10
P	2.00±0.10
P0	4.00±0.10
P1	2.00±0.10
W	8.00±0.30
T	0.2 ±0.05

Packaging Reel



SYMBOL	MILLIMETER
A	177.8±0.2
B	2.7±0.2
C	13.5±0.2
D	9.6±0.3
E	54.5±0.2
F	12.3±0.3
T1	1.0±0.2
Quantity	5000PCS

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Specifications are subject to change without notice.

Please refer to <http://www.born-tw.com> for current information.

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