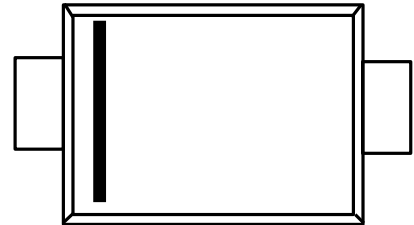


## »Features

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



**SOD-523**

## »General Description

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

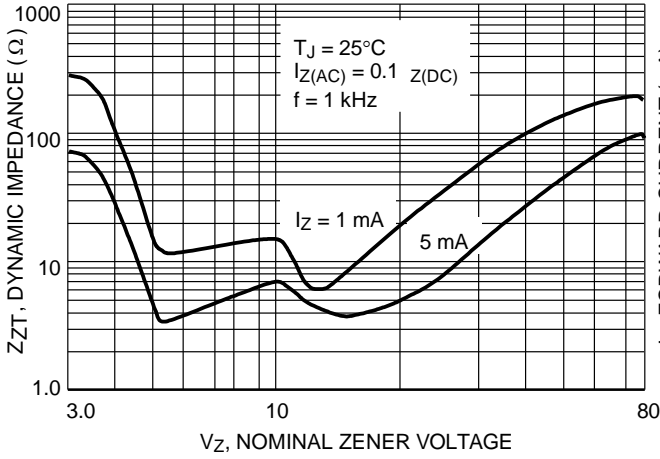
## » Maximum Ratings @ $T_A=25^{\circ}\text{C}$ unless otherwise noted

Parameters	Symbol	Value	Unit
Power Dissipation	Pd	200	mW
Forward Voltage @IF=10mA	Vf	0.9	V
Junction temperature	Tj	150	°C
Storage temperature range	Ts	-65--+150	°C

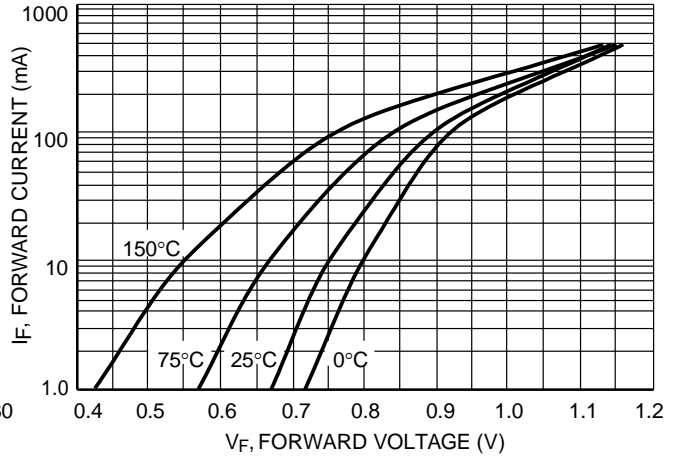
**»Electrical Characteristics @ $T_A=25^{\circ}\text{C}$  unless otherwise noted**

Device	Zener Voltage Range				Maximum Zener Impedance			Maximum Reverse Current		Typical Temperature coefficient @ IZTC=mV/°C		Test Current IZTC
	Vz@Izt			Izt	Zzt @Izt	Zzk @Izk	Izk	IR	VR	Min	Max	
	Nom(V)	Min(V)	Max(V)		$\Omega$	mA		uA	V			
BZT52C2V4T	2.4	2.2	2.6	5	100	600	1.0	50	1.0	-3.5	0	5
BZT52C2V7T	2.7	2.5	2.9	5	100	600	1.0	20	1.0	-3.5	0	5
BZT52C3V0T	3.0	2.8	3.2	5	100	600	1.0	10	1.0	-3.5	0	5
BZT52C3V3T	3.3	3.1	3.5	5	95	600	1.0	5	1.0	-3.5	0	5
BZT52C3V6T	3.6	3.4	3.8	5	90	600	1.0	5	1.0	-3.5	0	5
BZT52C3V9T	3.9	3.7	4.1	5	90	600	1.0	3	1.0	-3.5	0	5
BZT52C4V3T	4.3	4.0	4.6	5	90	600	1.0	3	1.0	-3.5	0	5
BZT52C4V7T	4.7	4.4	5.0	5	80	500	1.0	3	2.0	-3.5	0.2	5
BZT52C5V1T	5.1	4.8	5.4	5	60	480	1.0	2	2.0	-2.7	1.2	5
BZT52C5V6T	5.6	5.2	6.0	5	40	400	1.0	1	2.0	-2.0	2.5	5
BZT52C6V2T	6.2	5.8	6.6	5	10	150	1.0	3	4.0	0.4	3.7	5
BZT52C6V8T	6.8	6.4	7.2	5	15	80	1.0	2	4.0	1.2	4.5	5
BZT52C7V5T	7.5	7.0	7.9	5	15	80	1.0	1	5.0	2.5	5.3	5
BZT52C8V2T	8.2	7.7	8.7	5	15	80	1.0	0.7	5.0	3.2	6.2	5
BZT52C9V1T	9.1	8.5	9.6	5	15	100	1.0	0.5	6.0	3.8	7.0	5
BZT52C10T	10	9.4	10.6	5	20	150	1.0	0.2	7.0	4.5	8.0	5
BZT52C11T	11	10.4	11.6	5	20	150	1.0	0.1	8.0	5.4	9.0	5
BZT52C12T	12	11.4	12.7	5	25	150	1.0	0.1	8.0	6.0	10.0	5
BZT52C13T	13	12.4	14.1	5	30	170	1.0	0.1	8.0	7.0	11.0	5
BZT52C15T	15	13.8	15.6	5	30	200	1.0	0.1	10.5	9.2	13.0	5
BZT52C16T	16	15.3	17.1	5	40	200	1.0	0.1	11.2	10.4	14.0	5
BZT52C18T	18	16.8	19.1	5	45	225	1.0	0.1	12.6	12.4	16.0	5
BZT52C20T	20	18.8	21.2	5	55	225	1.0	0.1	14.0	14.4	18.0	5
BZT52C22T	22	20.8	23.3	5	55	250	1.0	0.1	15.4	16.4	20.0	5
BZT52C24T	24	22.8	25.6	5	70	250	1.0	0.1	16.8	18.4	22.0	5
BZT52C27T	27	25.1	28.9	2	80	300	0.5	0.1	18.9	21.4	25.3	2
BZT52C30T	30	28.0	32.0	2	80	300	0.5	0.1	21.0	24.4	29.4	2
BZT52C33T	33	31.0	35.0	2	80	325	0.5	0.1	23.1	27.4	33.4	2
BZT52C36T	36	34.0	38.0	2	90	350	0.5	0.1	25.2	30.4	37.4	2
BZT52C39T	39	37.0	41.0	2	130	350	0.5	0.1	27.3	33.4	41.2	2
BZT52C43T	43	40.0	46.0	2	100	700	1.0	0.1	32.0	10.0	12.0	5
BZT52C47T	47	44.0	50.0	2	100	750	1.0	0.1	35.0	10.0	12.0	5
BZT52C51T	51	48.0	54.0	2	100	750	1.0	0.1	38.0	10.0	12.0	5

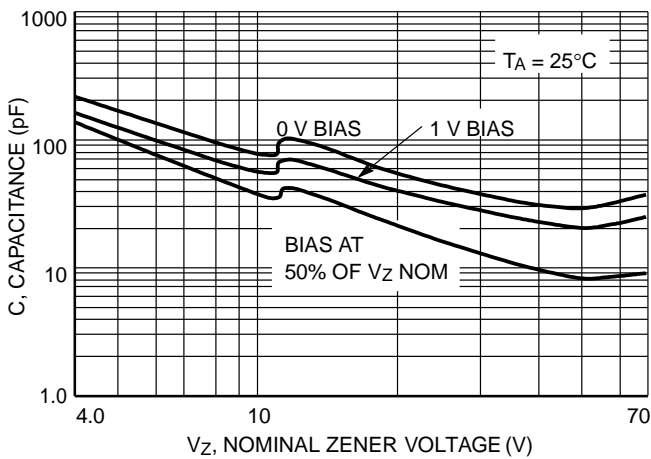
»Typical Performance Characteristics ((T<sub>J</sub> = 25 °C, unless otherwise noted))



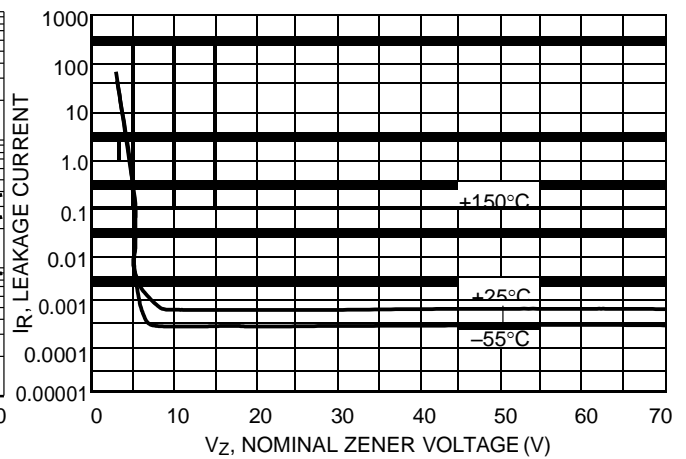
**Figure 1. Effect of Zener Voltage on Zener Impedance**



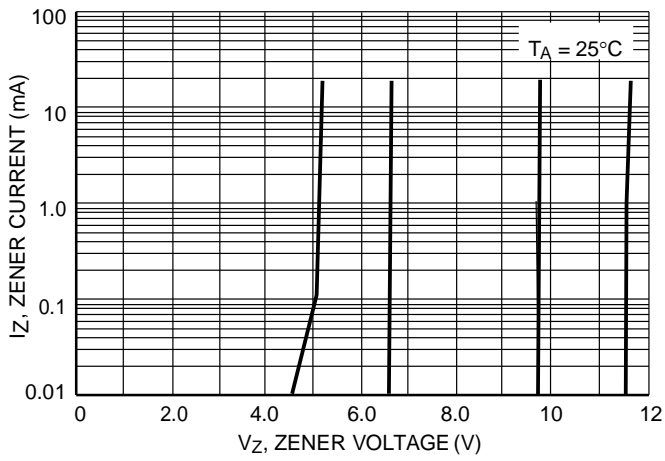
**Figure 2. Typical Forward Voltage**



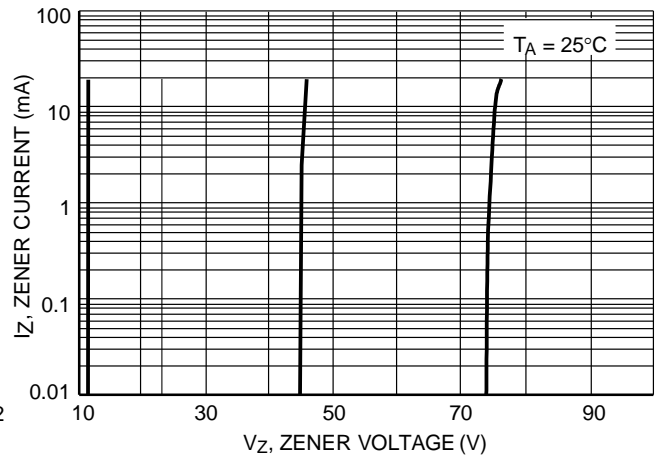
**Figure 3. Typical Capacitance**



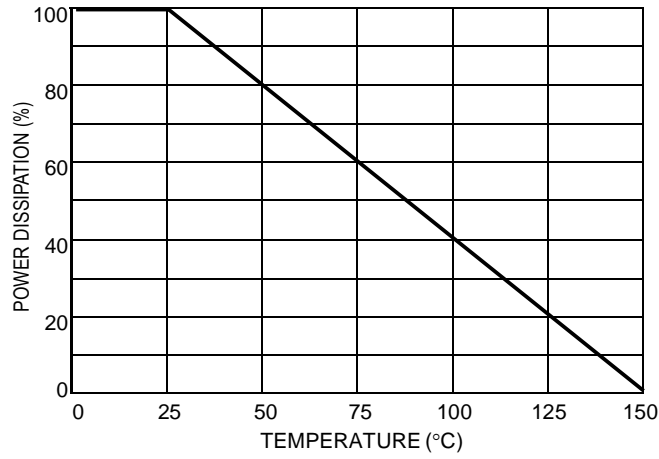
**Figure 4. Typical Leakage Current**



**Figure 5. Zener Voltage versus Zener Current (V<sub>Z</sub> Up to 12 V)**



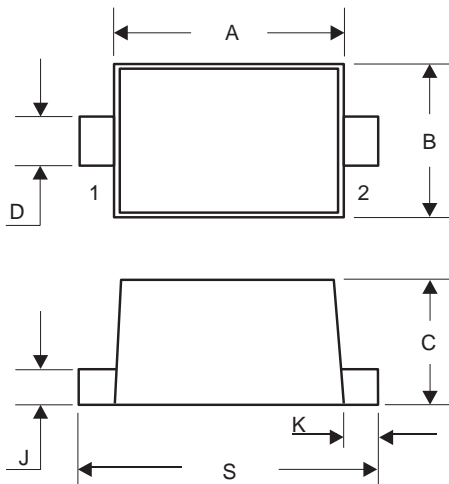
**Figure 6. Zener Voltage versus Zener Current (12 V to 75 V)**



**Figure 7. Steady State Power Derating**

»Package Information

SOD-523



DIM	Millimeters		Inches	
	Min	Max	Min	Max
A	1.10	1.30	0.043	0.051
B	0.70	0.90	0.028	0.035
C	0.50	0.70	0.020	0.028
D	0.25	0.35	0.010	0.014
J	0.07	0.20	0.0028	0.0079
K	0.15	0.25	0.006	0.010
S	1.50	1.70	0.059	0.067