

## Surface Mount Zener Diodes

BZX584C2V4~BZX584C75V

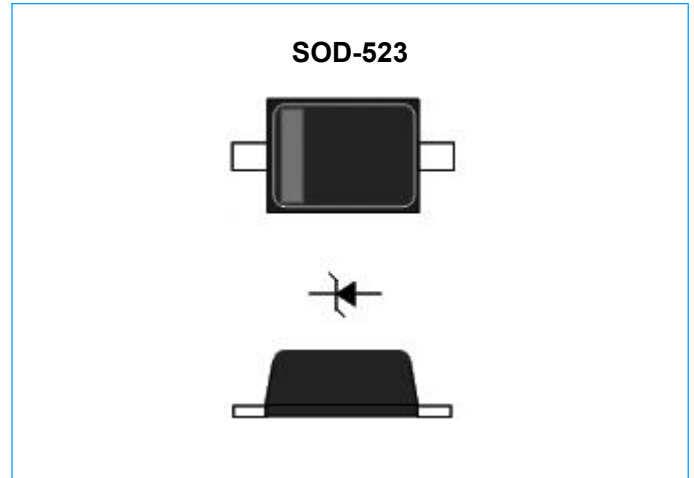
2.4 to 75 V

200mW

SOD-523

### Features

- ◆ Constant voltage control
- ◆ Wide voltage range selection 2.4V to 75V
- ◆ SOD-523 Thin SMD package
- ◆ RoHS compliant / Green EMC
- ◆ Matte Tin (Sn) Lead finish
- ◆ Cathode Band / Device marking
- ◆ Refer to table list



### Maximum Ratings (Ta = 25°C)

Parameter	Symbol	Value	Units
Power Dissipation	$P_D$	200	mW
Junction Temperature	$T_J$	150	°C
Storage Temperature	$T_{STG}$	-55 to +150	°C
Maximum Regulator Current	$I_{ZM}$	$P_D / V_Z$	mA

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**200mW**
**SOD-523**

### Electrical Characteristics

Part Number	V <sub>Z</sub> *1			I <sub>ZT</sub>	Z <sub>ZT</sub> @ I <sub>ZT</sub>	Z <sub>ZK</sub> @ I <sub>ZK</sub>	I <sub>ZK</sub>	I <sub>R</sub>	V <sub>R</sub>
	Nom.(V)	Min.(V)	Max.(V)	(mA)	Max.(Ω)		(mA)	Max.(μA)	(V)
BZX584C2V4	2.4	2.2	2.6	5	100	600	1.0	50	1.0
BZX584C2V7	2.7	2.5	2.9	5	100	600	1.0	20	1.0
BZX584C3V0	3.0	2.8	3.2	5	95	600	1.0	10	1.0
BZX584C3V3	3.3	3.1	3.5	5	95	600	1.0	5	1.0
BZX584C3V6	3.6	3.4	3.8	5	90	600	1.0	5	1.0
BZX584C3V9	3.9	3.7	4.1	5	90	600	1.0	3	1.0
BZX584C4V3	4.3	4.0	4.6	5	90	600	1.0	3	1.0
BZX584C4V7	4.7	4.4	5.0	5	80	500	1.0	3	2.0
BZX584C5V1	5.1	4.8	5.4	5	60	480	1.0	2	2.0
BZX584C5V6	5.6	5.2	6.0	5	40	400	1.0	1	2.0
BZX584C6V2	6.2	5.8	6.6	5	10	150	0.5	3	4.0
BZX584C6V8	6.8	6.4	7.2	5	15	80	0.5	2	4.0
BZX584C7V5	7.5	7.0	7.9	5	15	80	0.5	1	5.0
BZX584C8V2	8.2	7.7	8.7	5	15	80	0.5	0.7	5.0
BZX584C9V1	9.1	8.5	9.6	5	15	100	0.5	0.5	6.0
BZX584C10V	10	9.4	10.6	5	20	150	1.0	0.2	7.0
BZX584C11V	11	10.4	11.6	5	20	150	1.0	0.1	8.0
BZX584C12V	12	11.4	12.7	5	25	150	1.0	0.1	8.0
BZX584C13V	13	12.4	14.1	5	30	170	1.0	0.1	8.0
BZX584C15V	15	13.8	15.6	5	30	200	1.0	0.1	10.5
BZX584C16V	16	15.3	17.1	5	40	200	1.0	0.1	11.2
BZX584C18V	18	16.8	19.1	5	45	225	1.0	0.1	12.6
BZX584C20V	20	18.8	21.2	5	55	225	1.0	0.1	14.0

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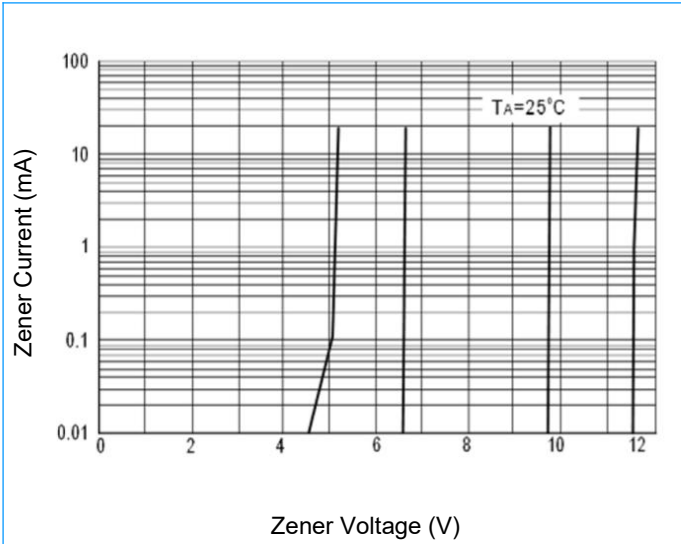
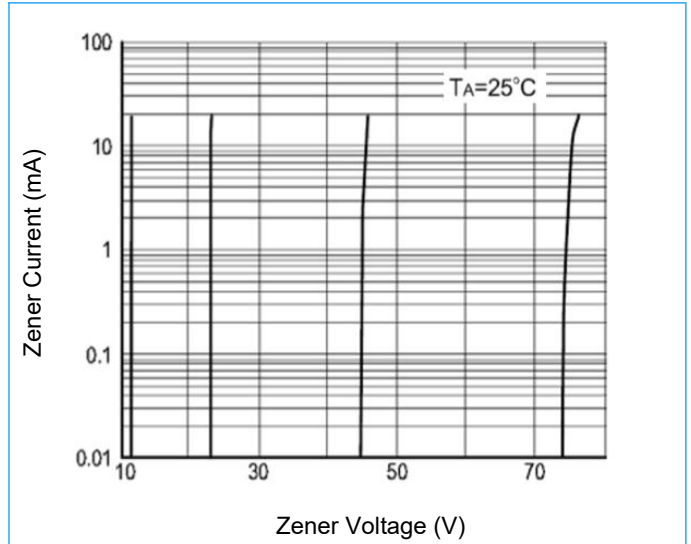
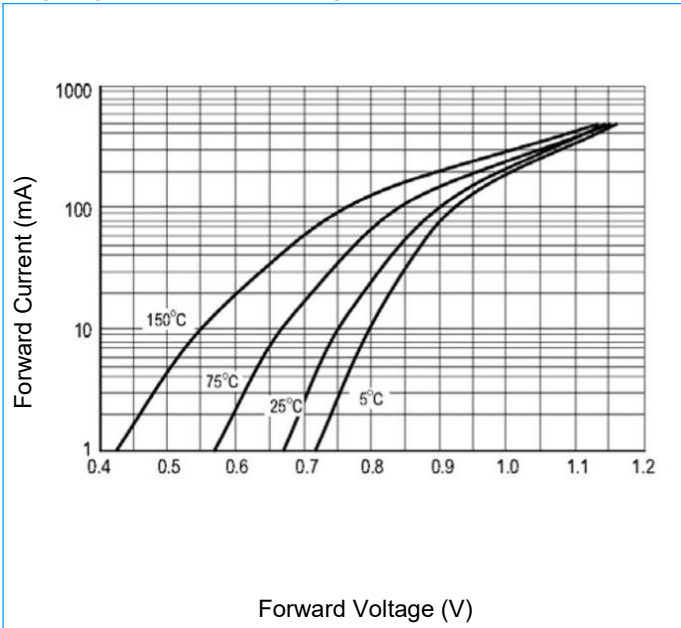
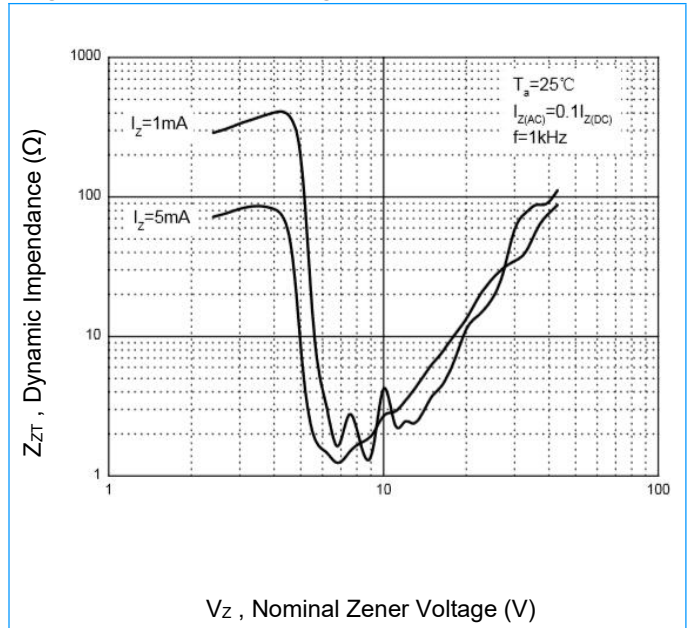
Part Number	V <sub>Z</sub> *1			I <sub>ZT</sub>	Z <sub>ZT</sub> @ I <sub>ZT</sub>	Z <sub>ZK</sub> @ I <sub>ZK</sub>	I <sub>ZK</sub>	I <sub>R</sub>	V <sub>R</sub>
	Nom.(V)	Min.(V)	Max.(V)	(mA)	Max.(Ω)		(mA)	Max.(μA)	(V)
BZX584C22V	22	20.8	23.3	5	55	250	1.0	0.1	15.4
BZX584C24V	24	22.8	25.6	5	70	250	1.0	0.1	16.8
BZX584C27V	27	25.1	28.9	2	80	300	0.5	0.1	18.9
BZX584C30V	30	28.0	32.0	2	80	300	0.5	0.1	21.0
BZX584C33V	33	31.0	35.0	2	80	325	0.5	0.1	23.1
BZX584C36V	36	34.0	38.0	2	90	350	0.5	0.1	25.2
BZX584C39V	39	37.0	41.0	2	130	350	0.5	0.1	27.3
BZX584C43V	43	40.0	46.0	2	100	700	1.0	0.1	32.0
BZX584C47V	47	44.65	49.35	2	170	1000	0.25	0.1	36.0
BZX584C51V	51	48.45	53.55	2	180	1300	0.25	0.1	39.0
BZX584C56V	56	53.2	58.8	2	200	1400	0.25	0.1	43.0
BZX584C62V	62	58.9	65.1	2	225	1400	0.25	0.1	47.0
BZX584C68V	68	64.6	71.4	2	240	1600	0.25	0.1	52.0
BZX584C75V	75	71.25	78.75	2	265	1700	0.25	0.1	56.0

\*1 Pulse width = 10 ms

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## Typical Characteristics

**Fig1. Zener Breakdown Characteristic**

**Fig2. Zener Breakdown Characteristics**

**Fig3. Typical Forward Voltage**

**Fig4. Effect of Zener Voltage on Zener Impedance**


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## Rating and Characteristic Curves (Continue)

Fig5. Typical Capacitance

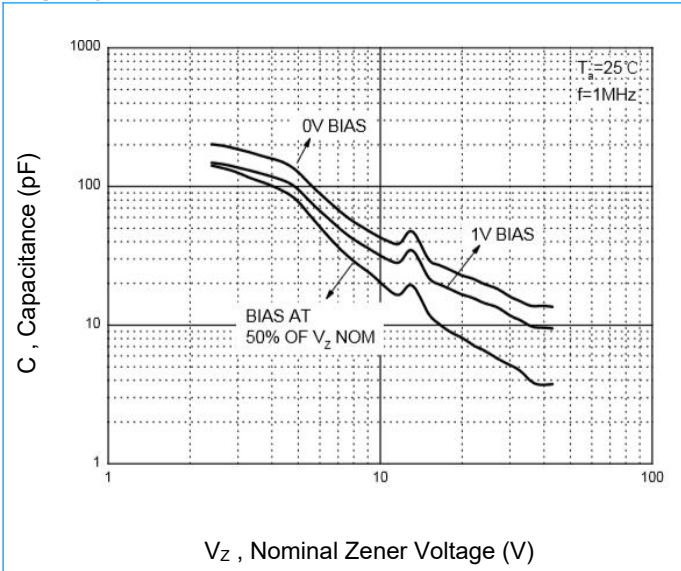


Fig6. Typical Leakage Current

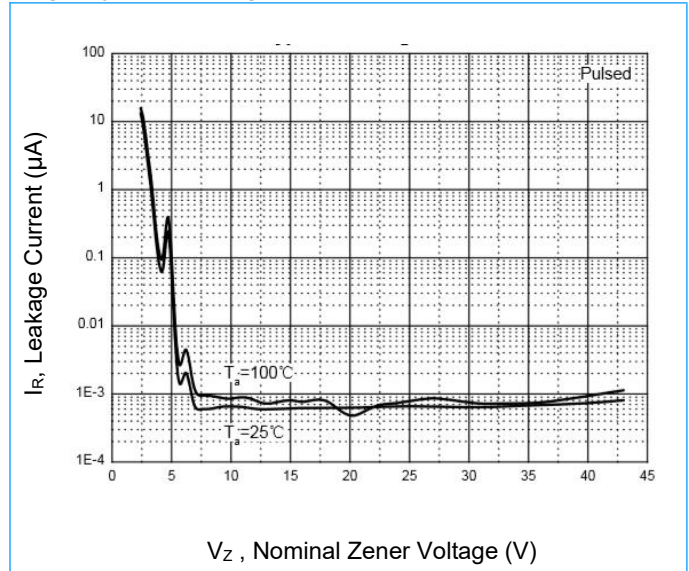
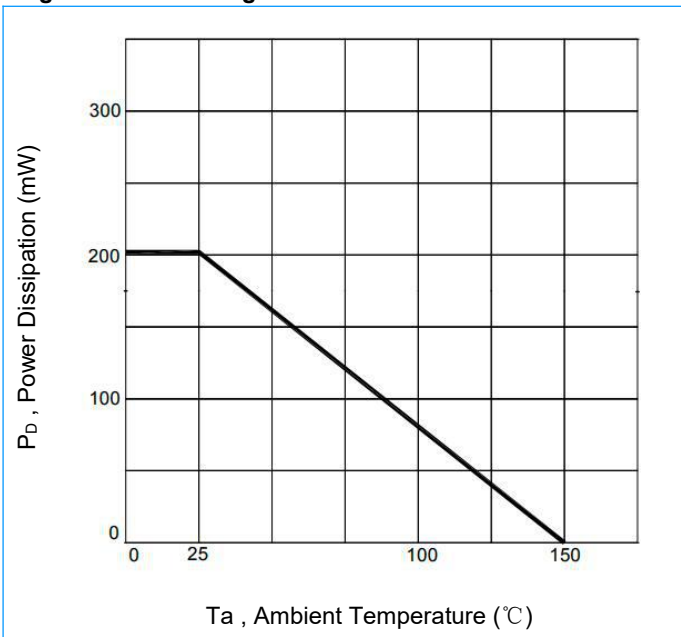


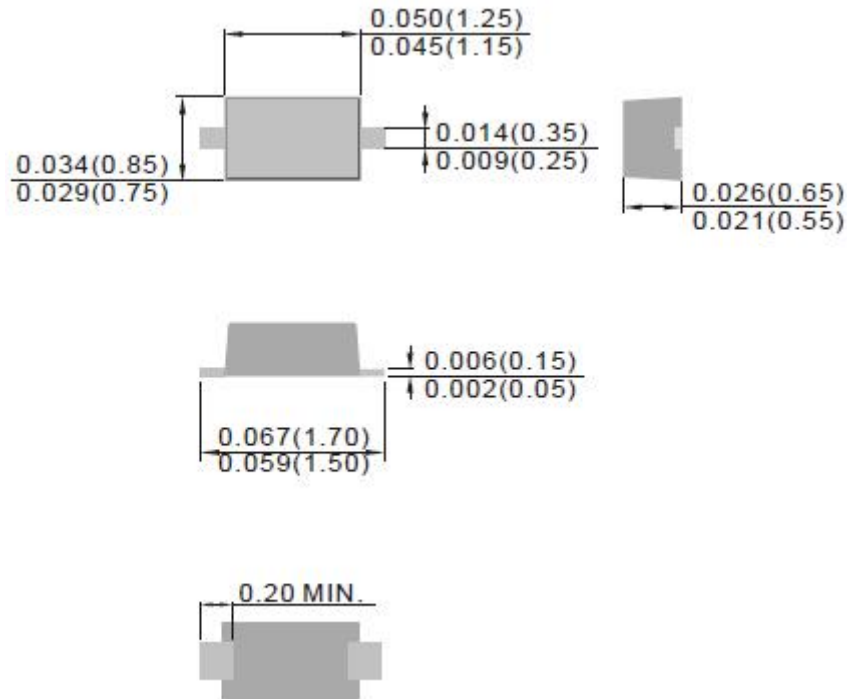
Fig7. Power Derating Curve



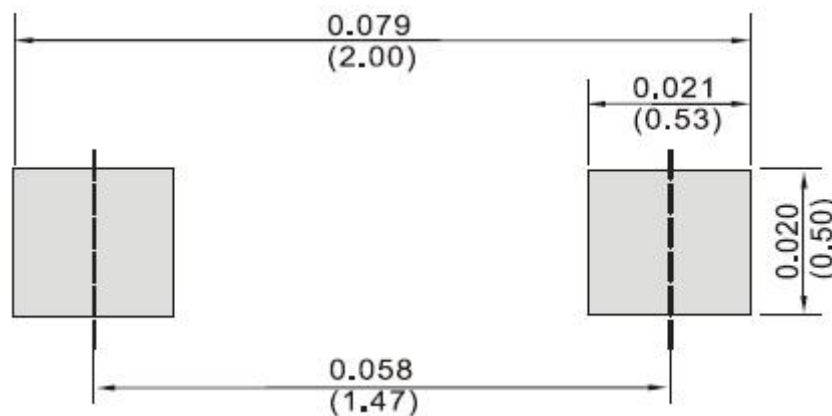
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### SOD-523 Package Outline (Dimensions in inches and (millimeters))



### SOD-523 Mounting Pad Layout (Dimensions in inches and (millimeters))



### Ordering Information

Part Number	Component Package	Shipping
<b>BZX584C2V4~BZX584C75V</b>	SOD-523	Tape & Reel 8000 PCS / 7" Reel