TECH PUBLIC
台舟电子

BZX584C Series
SOD523 Zener Diodes

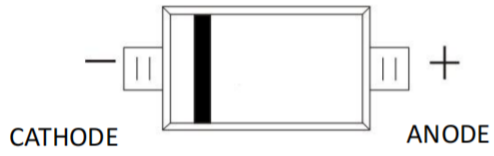
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Features

- Low Zener Impedance
- Power Dissipation of 200mW
- High Stability and High Reliability
- Halogen free and RoHS compliant
- SOD523 surface mount package

Applications

- General voltage regulation
- Mobile & handheld systems



SOD523



Pin Configuration

Maximum Ratings& Thermal Characteristics

(Tamb=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Forward Voltage @ IF=10mA	VF	0.9	V
Power Dissipation	PD	200	mW
Thermal Resistance (Junction-to-Ambient)	RθJA	833	°C/W
Thermal Resistance (Junction-to-Case)	RθJC	550	°C/W
Junction Temperature Range	TJ	-55 ~ +150	°C
Storage Temperature Range	TSTG	-65 ~ +150	°C

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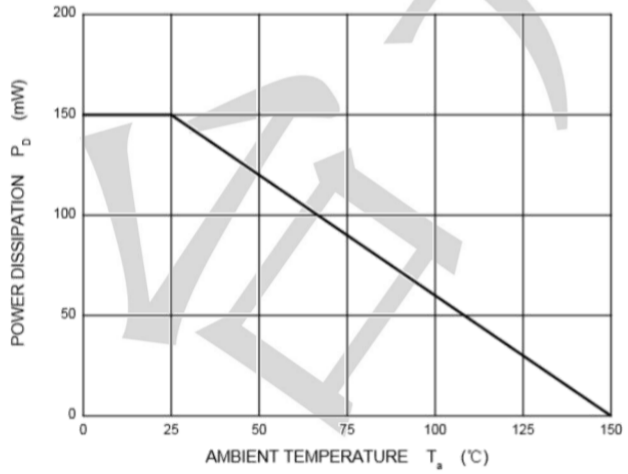
Electrical Characteristics (TA=25°C unless otherwise specified)

Type Number	Device Marking	Vz (V) *1			I_{ZT}	Z_{ZT}@ I_{ZT}	Z_{ZK}@ I_{ZK}	Izk	I_R	V_R
		Nom(V)	Min(V)	Max(V)	mA	Ω		(mA)	(uA)	(V)
BZX584C2V4	Z11	2.4	2.20	2.60	5	100	600	1.0	50	1.0
BZX584C2V7	Z12	2.7	2.5	2.9	5	100	600	1.0	20	1.0
BZX584C3V0	Z13	3.0	2.8	3.2	5	95	600	1.0	10	1.0
BZX584C3V3	Z14	3.3	3.1	3.5	5	95	600	1.0	5	1.0
BZX584C3V6	Z15	3.6	3.4	3.8	5	90	600	1.0	5	1.0
BZX584C3V9	Z16	3.9	3.7	4.1	5	90	600	1.0	3	1.0
BZX584C4V3	Z17	4.3	4.0	4.6	5	90	600	1.0	3	1.0
BZX584C4V7	Z1	4.7	4.4	5.0	5	80	500	1.0	3	2.0
BZX584C5V1	Z2	5.1	4.8	5.4	5	60	480	1.0	2	2.0
BZX584C5V6	Z3	5.6	5.2	6.0	5	40	400	1.0	1	2.0
BZX584C6V2	Z4	6.2	5.8	6.6	5	10	150	1.0	3	4.0
BZX584C6V8	Z5	6.8	6.4	7.2	5	15	80	1.0	2	4.0
BZX584C7V5	Z6	7.5	7.0	7.9	5	15	80	1.0	1	5.0
BZX584C8V2	Z7	8.2	7.7	8.7	5	15	80	1.0	0.7	5.0
BZX584C9V1	Z8	9.1	8.5	9.6	5	15	100	1.0	0.5	6.0
BZX584C10	Z9	10.0	9.4	10.6	5	20	150	1.0	0.2	7.0
BZX584C11	Y1	11.0	10.4	11.6	5	20	150	1.0	0.1	8.0
BZX584C12	Y2	12.0	11.40	12.7	5	25	150	1.0	0.1	8.0
BZX584C13	Y3	13.0	12.40	14.10	5	30	170	1.0	0.1	8.0
BZX584C15	Y4	15.0	13.8	15.6	5	30	200	1.0	0.1	10.5
BZX584C16	Y5	16.0	15.3	17.1	5	40	200	1.0	0.1	11.2
BZX584C18	Y6	18.0	16.8	19.1	5	45	225	1.0	0.1	12.6
BZX584C20	Y7	20.0	18.8	21.2	5	55	225	1.0	0.1	14.0
BZX584C22	Y8	22.0	20.8	23.3	5	55	250	1.0	0.1	15.4
BZX584C24	Y9	24.0	22.80	25.6	5	70	250	1.0	0.1	16.8
BZX584C27	Y10	27.0	25.1	28.9	2	80	300	0.5	0.1	18.9

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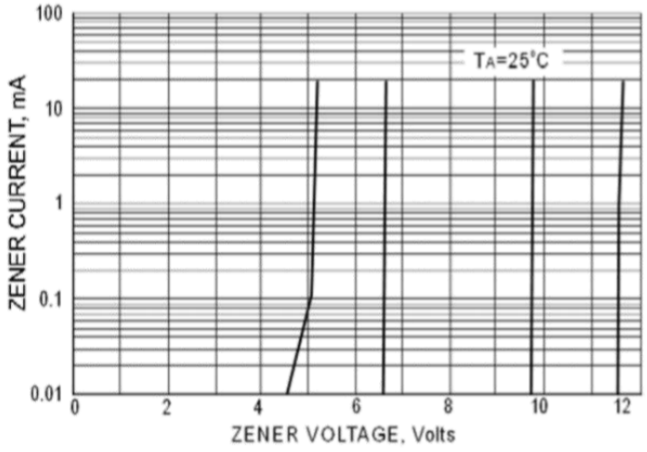
Type Number	Device Marking	Vz (V) *1			I_{ZT}	Z_{ZT}@ I_{ZT}	Z_{ZK}@ I_{ZK}	Izk	I_R	V_R
		Nom(V)	Min(V)	Max(V)	mA	Ω		(mA)	(uA)	(V)
BZX584C30	Y11	30.0	28.0	32.0	2	80	300	0.5	0.1	21.0
BZX584C33	Y12	33.0	31.0	35.0	2	80	325	0.5	0.1	23.1
BZX584C36	Y13	36.0	34.0	38.0	2	90	350	0.5	0.1	25.2
BZX584C39	Y14	39.0	37.0	41.0	2	130	350	0.5	0.1	27.3
BZX584C43	Y15	43.0	40.0	46.0	2	100	700	1	0.1	32
BZX584C47	V1	47.0	44.65	49.35	2	170	1000	0.25	0.1	36
BZX584C51	V2	51	48.45	53.55	2	180	1300	0.25	0.1	39
BZX584C56	V3	56	53.20	58.80	2	200	1400	0.25	0.1	43
BZX584C62	V4	62	58.90	65.10	2	225	1400	0.25	0.1	47
BZX584C68	V5	68	64.60	71.40	2	240	1600	0.25	0.1	52
BZX584C75	V6	75	71.25	78.75	2	265	1700	0.25	0.1	56

Typical Characteristics Curves

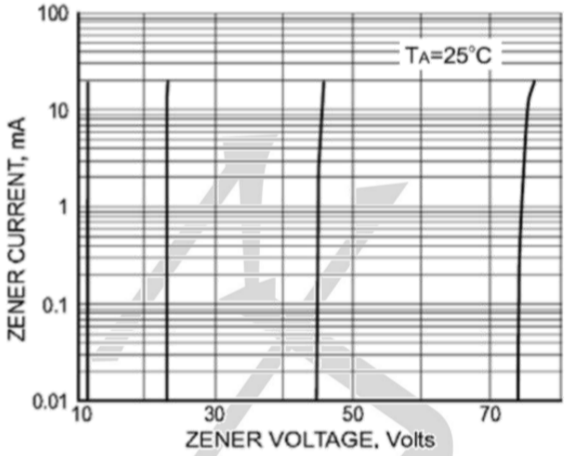


Power Derating Curve

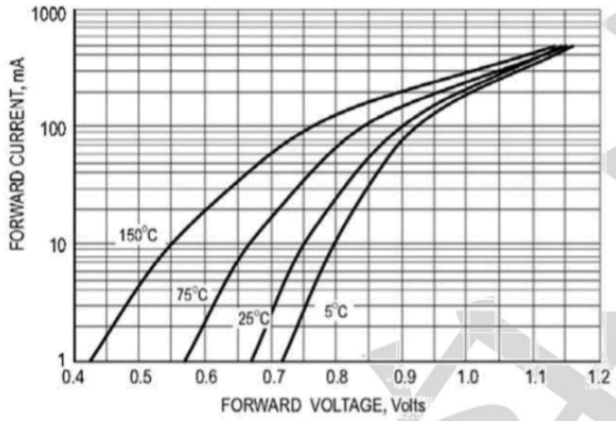
Typical Characteristics Curves



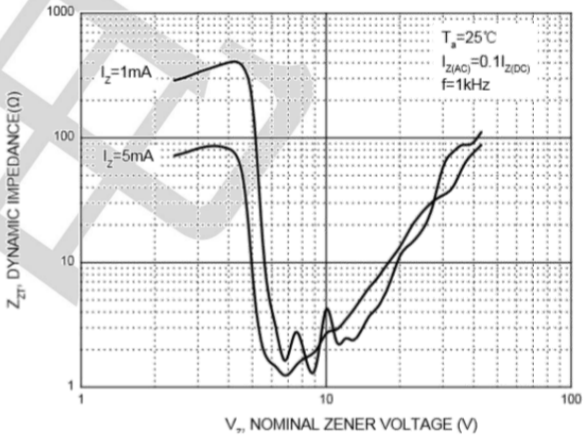
ZENER BREAKDOWN CHARACTERISTIC



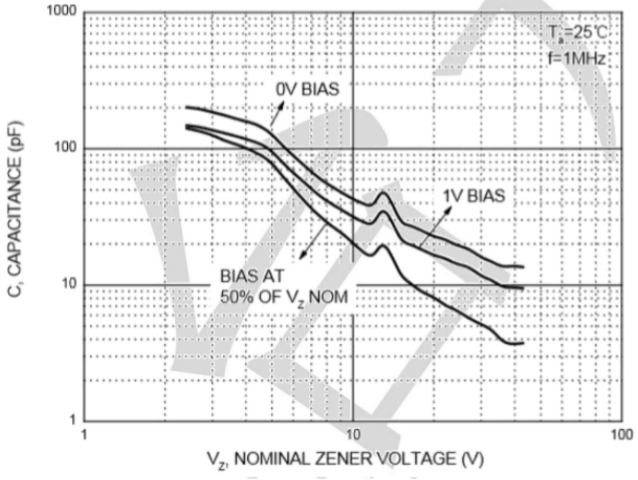
ZENER BREAKDOWN CHARACTERISTICS



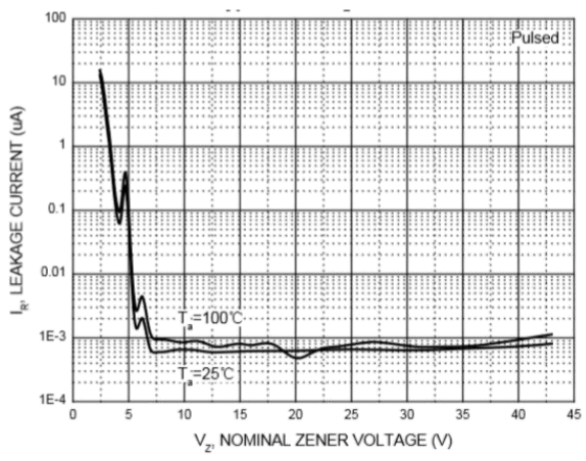
TYPICAL FORWARD VOLTAGE



Effect of Zener Voltage on Zener Impedance



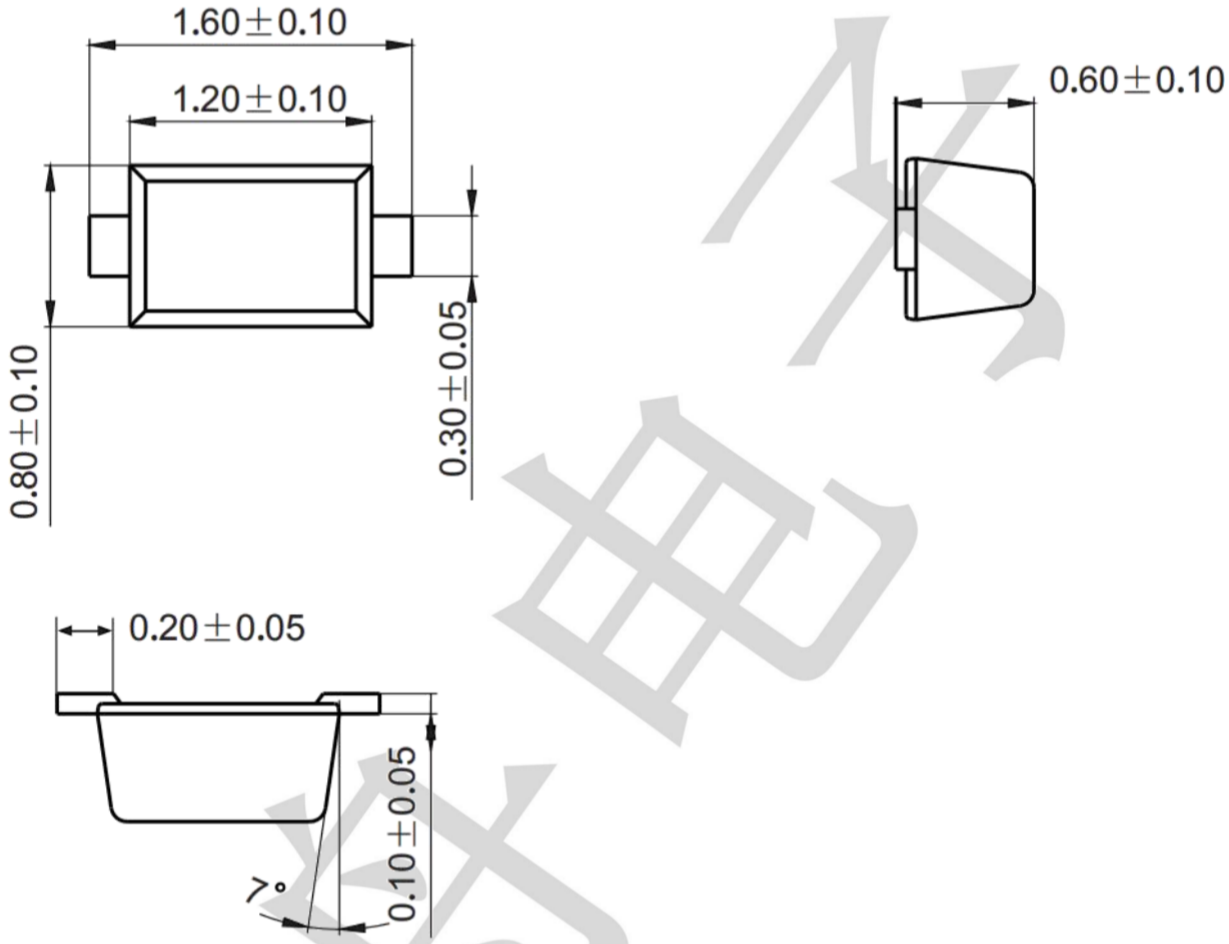
Typical Capacitance



Typical Leakage Current

Package Outline Dimensions (unit: mm)

SOD523



Mounting Pad Layout (unit: mm)

