

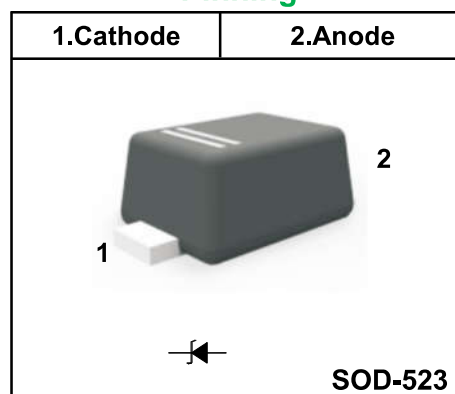
Plastic-Encapsulate Diode

ZENER DIODE

FEATURES

- ◆ Planar Die Construction
- ◆ 150mW Power Dissipation
- ◆ Zener Voltages from 2.4 – 39V

Pinning



MAXIMUM RATINGS(Ta=25℃ unless otherwise specified)

Characteristic	Symbol	Value	Unit
Forward Voltage @I _F =10mA	V _F	0.9	V
Power Dissipation (Note 1)	P _D	150	mW
Thermal Resistance from Junction to Ambient	R _{θJA}	833	℃/W
Junction Temperature	T _J	150	℃
Storage Temperature	T _{stg}	-55~+150	℃

Ta=25°C unless otherwise specified

Type Number	Type Code	Zener Voltage Range (Note 2)				Maximum Zener Impedance (Note 3)			Maximum Reverse Current		Typical Temperature Coefficient @I _{ZT} =5 mA mV/°C	
		V _Z @I _{ZT}			I _{ZT}	Z _{ZT} @I _{ZT}	Z _{ZK} @I _{ZK}	I _{ZK}	I _R	V _R		
		Nom(V)	Min(V)	Max(V)	mA	Ω		mA	μA	V	Min	Max
BZX584B2V4	XY	2.4	2.35	2.45	5	100	600	1	50	1	-3.5	0
BZX584B2V7	XZ	2.7	2.65	2.75	5	100	600	1	20	1	-3.5	0
BZX584B3V0	FR	3	2.94	3.06	5	95	600	1	10	1	-3.5	0
BZX584B3V3	FX	3.3	3.23	3.37	5	95	600	1	5	1	-3.5	0
BZX584B3V6	FY	3.6	3.53	3.67	5	90	600	1	5	1	-3.5	0
BZX584B3V9	FZ	3.9	3.82	3.98	5	90	600	1	3	1	-3.5	0
BZX584B4V3	HA	4.3	4.21	4.39	5	90	600	1	3	1	-3.5	0
BZX584B4V7	HB	4.7	4.61	4.79	5	80	500	1	3	2	-3.5	0.2
BZX584B5V1	HC	5.1	5	5.2	5	60	480	1	2	2	-2.7	1.2
BZX584B5V6	HD	5.6	5.49	5.71	5	40	400	1	1	2	-2	2.5
BZX584B6V2	HE	6.2	6.08	6.32	5	10	150	1	3	4	0.4	3.7
BZX584B6V8	HF	6.8	6.66	6.94	5	15	80	1	2	4	1.2	4.5
BZX584B7V5	HH	7.5	7.35	7.65	5	15	80	1	1	5	2.5	5.3
BZX584B8V2	HJ	8.2	8.04	8.36	5	15	80	1	0.7	5	3.2	6.2
BZX584B9V1	HK	9.1	8.92	9.28	5	15	100	1	0.5	6	3.8	7
BZX584B10	HM	10	9.8	10.2	5	20	150	1	0.2	7	4.5	8
BZX584B11	HN	11	10.78	11.22	5	20	150	1	0.1	8	5.4	9
BZX584B12	HP	12	11.76	12.24	5	25	150	1	0.1	8	6	10
BZX584B13	HR	13	12.74	13.26	5	30	170	1	0.1	8	7	11
BZX584B15	HX	15	14.7	15.3	5	30	200	1	0.1	10.5	9.2	13
BZX584B16	HY	16	15.68	16.32	5	40	200	1	0.1	11.2	10.4	14
BZX584B18	HZ	18	17.64	18.36	5	45	225	1	0.1	12.6	12.4	16
BZX584B20	JA	20	19.6	20.4	5	55	225	1	0.1	14	14.4	18
BZX584B22	JB	22	21.56	22.44	5	55	250	1	0.1	15.4	16.4	20
BZX584B24	JC	24	23.52	24.48	5	70	250	1	0.1	16.8	18.4	22
BZX584B27	JD	27	26.46	27.54	2	80	300	0.5	0.1	18.9	21.4	25.3
BZX584B30	JE	30	29.4	30.6	2	80	300	0.5	0.1	21	24.4	29.4
BZX584B33	JF	33	32.34	33.66	2	80	325	0.5	0.1	23.1	27.4	33.4
BZX584B36	JH	36	35.28	36.72	2	90	350	0.5	0.1	25.2	30.4	37.4
BZX584B39	JJ	39	38.22	39.78	2	130	350	0.5	0.1	27.3	33.4	41.2

Notes:

1.Valid provided that device terminals are kept at ambient temperature.

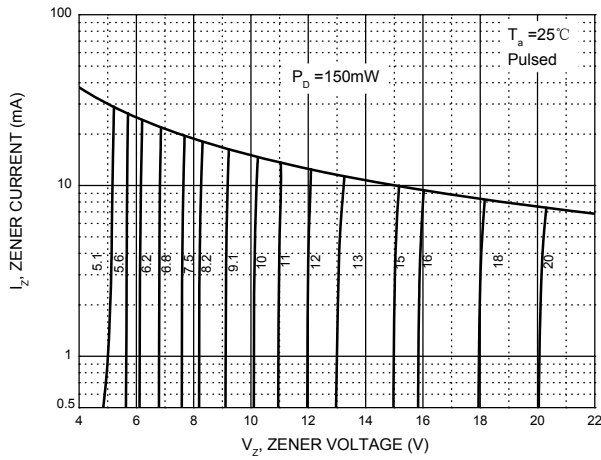
2.Tested with pulses, period=5ms,pulse width =300μs.

3.f=1kHz.

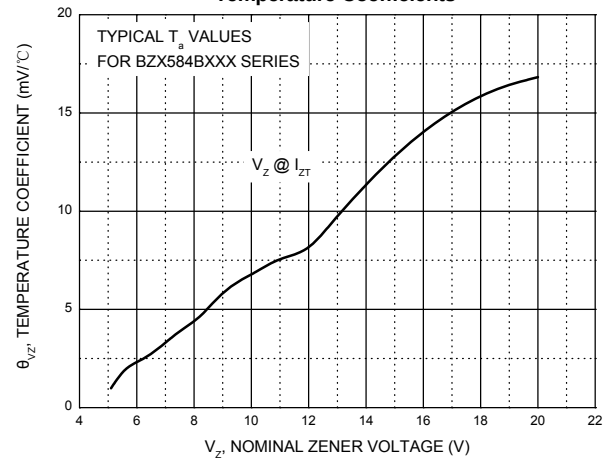
Typical Characteristics

Notes: Our company currently provide 5.1V-20 V products only

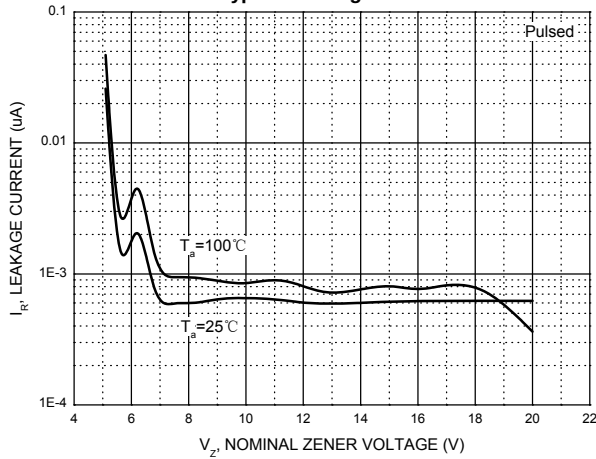
Zener Characteristics (V_z 5.1V to 20 V)



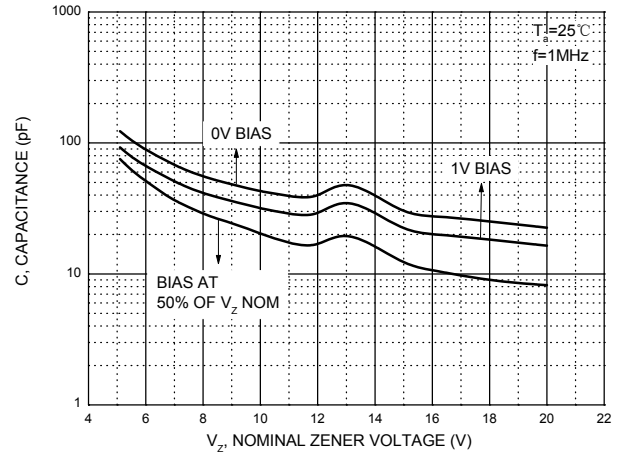
Temperature Coefficients



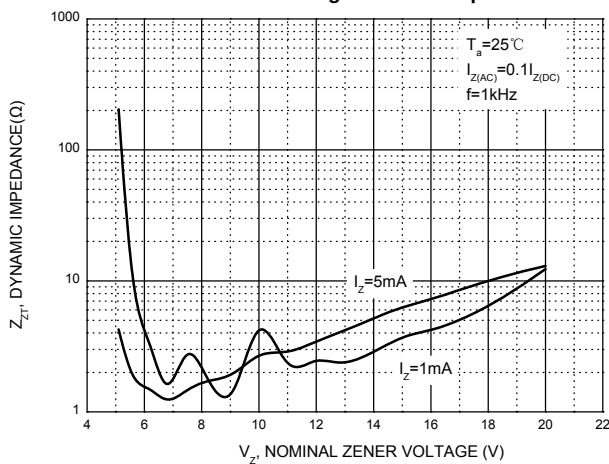
Typical Leakage Current



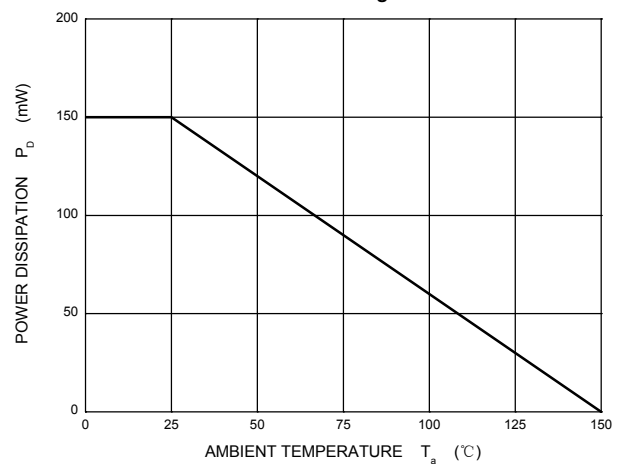
Typical Capacitance



Effect of Zener Voltage on Zener Impedance



Power Derating Curve



Ordering information

Package	Packing Description	Packing Quantity
SOD-523	Tape/Reel, 7" reel	3000PCS/Reel 120000PCS/Carton

Package Dimensions

SOD-523

Top view of a rectangular component. Dimension A is the height, HE is the length, and C is the thickness. A note indicates 'ALL ROUND' for the corners.

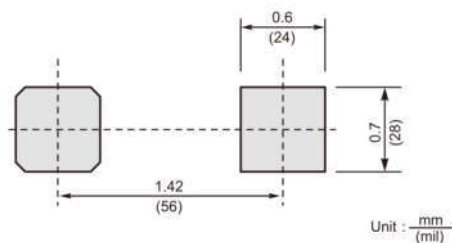
Side view of the component. Dimension A is the height, E is the length, and P is the radius of the corner.

Bottom view of the component. Dimension D is the width, E is the height, e is the thickness, and L is the length of the mounting tabs.

Bottom view of the component. Dimension N is the width of the mounting tabs. The label '底视图 bottom view' is present.

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	0.51	0.77	20	30
e	0.25	0.35	10	14
C	0.08	0.15	3	6
D	1.10	1.30	43	51
E	0.75	0.99	30	39
HE	1.50	1.70	59	67
N	0.35ref		14ref	
L	0.2ref		8ref	
P	R0.1 ALL ROUND		R4.0 ALL ROUND	
∠	10°			

The recommended mounting pad size



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