

Plastic-Encapsulate Diode

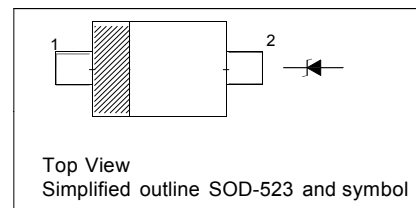
ZENER DIODE

FEATURES

- Planar Die Construction
- 100mW Power Dissipation
- Zener Voltages from 2.4 – 75V

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Maximum Ratings($T_a=25^{\circ}\text{C}$ unless otherwise specified)

Characteristic	Symbol	Value	Unit
Forward Voltage @ $I_F=10\text{mA}$	V_F	0.9	V
Power Dissipation	P_D	150	mW
Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	625	$^{\circ}\text{C}/\text{W}$
Operating and Storage Temperature Range	T_j, T_{STG}	-65 ~ +150	$^{\circ}\text{C}$

Electrical Characteristics (25 °C unless otherwise specitied)

Type Number	Type Code	Zener Voltage Range (Note 2)				Maximum Zener Impedance (Note 3)			Maximum Reverse Current	
		V _Z @ I _{ZT}			I _{ZT}	Z _{zt} @ I _{ZT}	Z _{zk} @ I _{ZK}		I _R	V _R
		Nom(V)	Min(V)	Max(V)	(mA)	(Ω)	(mA)		(uA)	(V)
BZX585C2V4	Z11	2.4	2.20	2.60	5	100	600	1.0	50	1.0
BZX585C2V7	Z12	2.7	2.5	2.9	5	100	600	1.0	20	1.0
BZX585C3V0	Z13	3.0	2.8	3.2	5	95	600	1.0	10	1.0
BZX585C3V3	Z14	3.3	3.1	3.5	5	95	600	1.0	5	1.0
BZX585C3V6	Z15	3.6	3.4	3.8	5	90	600	1.0	5	1.0
BZX585C3V9	Z16	3.9	3.7	4.1	5	90	600	1.0	3	1.0
BZX585C4V3	Z17	4.3	4.0	4.6	5	90	600	1.0	3	1.0
BZX585C4V7	Z1	4.7	4.4	5.0	5	80	500	1.0	3	2.0
BZX585C5V1	Z2	5.1	4.8	5.4	5	60	480	1.0	2	2.0
BZX585C5V6	Z3	5.6	5.2	6.0	5	40	400	1.0	1	2.0
BZX585C6V2	Z4	6.2	5.8	6.6	5	10	150	1.0	3	4.0
BZX585C6V8	Z5	6.8	6.4	7.2	5	15	80	1.0	2	4.0
BZX585C7V5	Z6	7.5	7.0	7.9	5	15	80	1.0	1	5.0
BZX585C8V2	Z7	8.2	7.7	8.7	5	15	80	1.0	0.7	5.0
BZX585C9V1	Z8	9.1	8.5	9.6	5	15	100	1.0	0.5	6.0
BZX585C10	Z9	10	9.4	10.6	5	20	150	1.0	0.2	7.0
BZX585C11	Y1	11	10.4	11.6	5	20	150	1.0	0.1	8.0
BZX585C12	Y2	12	11.4	12.7	5	25	150	1.0	0.1	8.0
BZX585C13	Y3	13	12.4	14.1	5	30	170	1.0	0.1	8.0
BZX585C15	Y4	15	13.8	15.6	5	30	200	1.0	0.1	10.5
BZX585C16	Y5	16	15.3	17.1	5	40	200	1.0	0.1	11.2
BZX585C18	Y6	18	16.8	19.1	5	45	225	1.0	0.1	12.6
BZX585C20	Y7	20	18.8	21.2	5	55	225	1.0	0.1	14.0
BZX585C22	Y8	22	20.8	23.3	5	55	250	1.0	0.1	15.4
BZX585C24	Y9	24	22.8	25.6	5	70	250	1.0	0.1	16.8
BZX585C27	Y10	27	25.1	28.9	2	80	300	0.5	0.1	18.9
BZX585C30	Y11	30	28.0	32.0	2	80	300	0.5	0.1	21.0
BZX585C33	Y12	33	31.0	35.0	2	80	325	0.5	0.1	23.1
BZX585C36	Y13	36	34.0	38.0	2	90	350	0.5	0.1	25.2
BZX585C39	Y14	39	37.0	41.0	2	130	350	0.5	0.1	27.3
BZX585C43	Y15	43	40	46	2.5	130	500	1	2	33
BZX585C47	Y16	47	44	50	2.5	150	500	1	2	36
BZX585C51	Y17	51	48	54	2.5	180	500	1	1	39
BZX585C56	Y18	56	52	60	2.5	180	500	1	1	43
BZX585C62	Y19	62	58	66	2.5	200	500	1	0.2	47
BZX585C68	Y20	68	64	72	2.5	250	500	1	0.2	52
BZX585C75	Y21	75	70	79	2.5	300	500	1	0.2	57

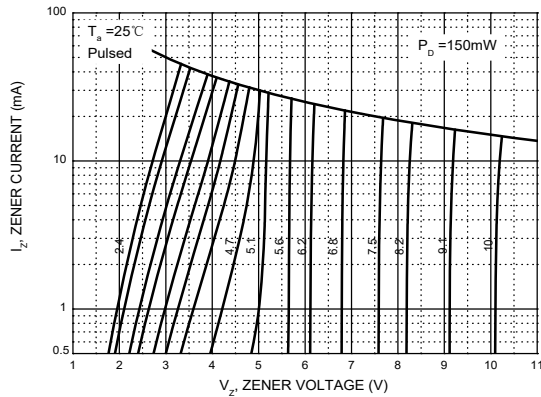
Notes: 1. Valid provided that device terminals are kept at ambient temperature.

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

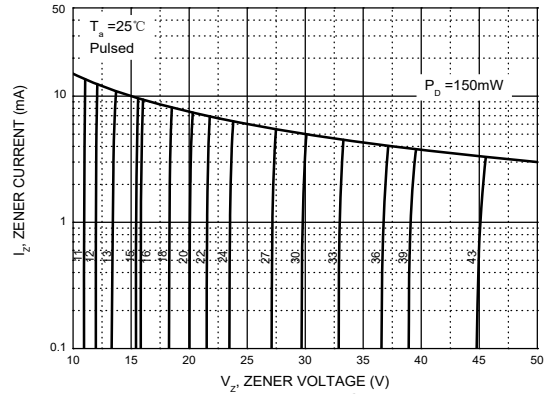
3. f = 1KHz

Typical Characteristics

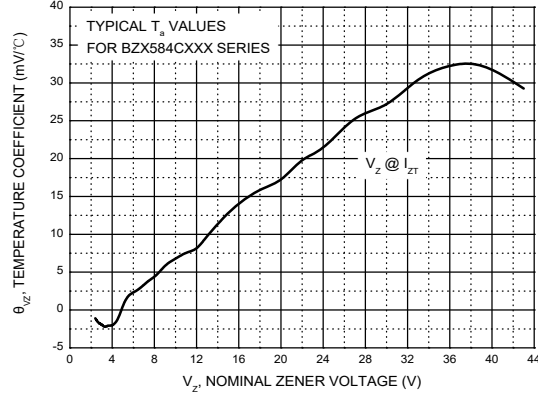
Zener Characteristics (V_Z Up to 10 V)



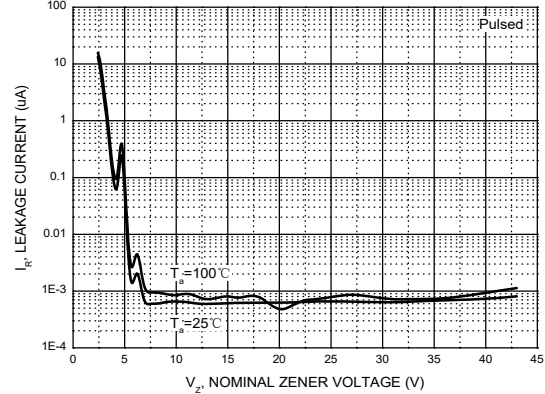
Zener Characteristics (11 V to 43 V)



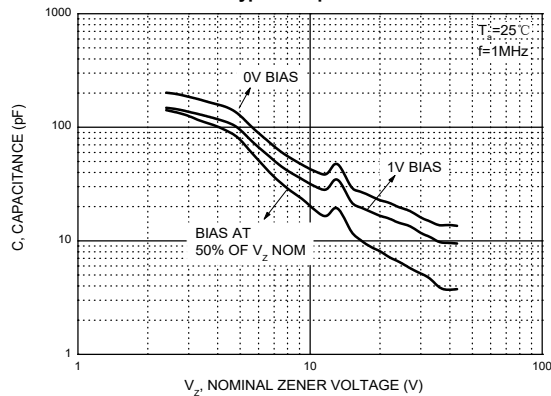
Temperature Coefficients



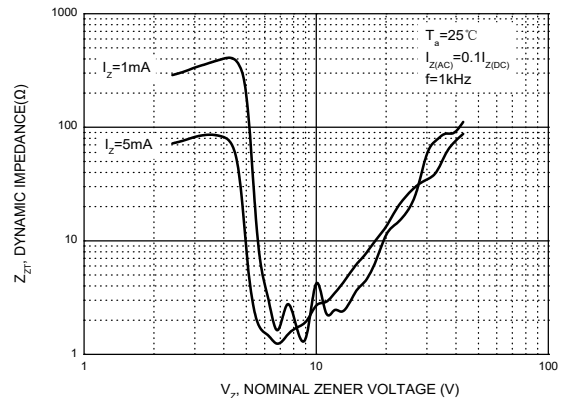
Typical Leakage Current



Typical Capacitance



Effect of Zener Voltage on Zener Impedance



Power Derating Curve

