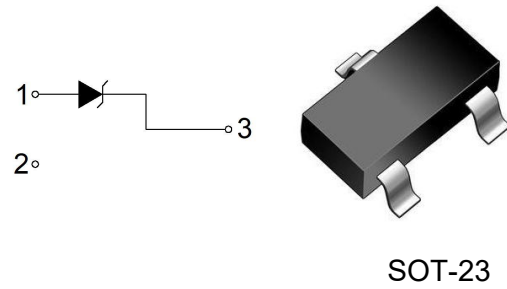


Plastic-Encapsulate Zener Diode

Parameter	Value	Unit
V_Z	2.4~43	V
P_D	300	mW



Features

- Low profile package
- Ideal for automated placement
- Low Zener Impedance
- Power Dissipation of 300mW
- High Stability and High Reliability

Applications

- Surge protection
- Voltage stabilization
- Polarity Protection

Absolute Maximum Ratings (T_A=25°C, RH=45%-75%, unless otherwise noted)

Parameter	Symbol	Value	Unit
Forward Voltage (Note 1) @ I _F = 10mA	V _F	0.9	V
Power Dissipation(Note 2)	P _D	300	mW
Thermal Resistance from Junction to Ambient	R _{θJA}	417	°C/W
Junction Temperature	T _J	-55~+150	°C
Storage Temperature Range	T _{STG}	-55~+150	°C

Electrical Characteristics (T_A=25°C)

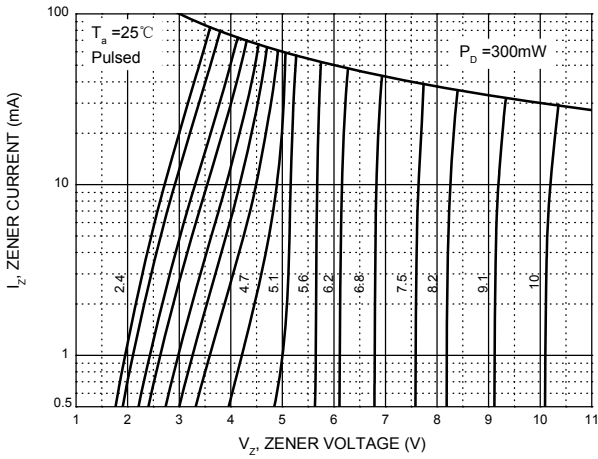
Part Number	Marking	Nominal Zener Voltage @IZT ^①				Maximum Zener impedance ^③			Maximum Reverse Leakage Current		Typical Temperature coefficient @ IZTC=mVrc	
		VZ Nom.(V)	VZ Min.(V)	VZ Max.(V)	IZT (mA)	ZZT@IZT (Ω)	ZZK@IZK (Ω)	IZK (mA)	IR@VR (uA)	VR (V)	Min	Max
BZX84C2V4	Z11	2.4	2.20	2.60	5	100	600	1.0	50	1.0	-3.5	0
BZX84C2V7	Z12	2.7	2.5	2.9	5	100	600	1.0	20	1.0	-3.5	0
BZX84C3V0	Z13	3.0	2.8	3.2	5	95	600	1.0	10	1.0	-3.5	0
BZX84C3V3	Z14	3.3	3.1	3.5	5	95	600	1.0	5	1.0	-3.5	0
BZX84C3V6	Z15	3.6	3.4	3.8	5	90	600	1.0	5	1.0	-3.5	0
BZX84C3V9	Z16	3.9	3.7	4.1	5	90	600	1.0	3	1.0	-3.5	0
BZX84C4V3	Z17	4.3	4.0	4.6	5	90	600	1.0	3	1.0	-3.5	0
BZX84C4V7	Z1	4.7	4.4	5.0	5	80	500	1.0	3	2.0	-3.5	0.2
BZX84C5V1	Z2	5.1	4.8	5.4	5	60	480	1.0	2	2.0	-2.7	1.2
BZX84C5V6	Z3	5.6	5.2	6.0	5	40	400	1.0	1	2.0	-2.0	2.5
BZX84C6V2	Z4	6.2	5.8	6.6	5	10	150	1.0	3	4.0	0.4	3.7
BZX84C6V8	Z5	6.8	6.4	7.2	5	15	80	1.0	2	4.0	1.2	4.5
BZX84C7V5	Z6	7.5	7.0	7.9	5	15	80	1.0	1	5.0	2.5	5.3
BZX84C8V2	Z7	8.2	7.7	8.7	5	15	80	1.0	0.7	5.0	3.2	6.2
BZX84C9V1	Z8	9.1	8.5	9.6	5	15	100	1.0	0.5	6.0	3.8	7.0
BZX84C10	Z9	10	9.4	10.6	5	20	150	1.0	0.2	7.0	4.5	8.0
BZX84C11	Y1	11	10.4	11.6	5	20	150	1.0	0.1	8.0	5.4	9.0
BZX84C12	Y2	12	11.4	12.7	5	25	150	1.0	0.1	8.0	6.0	10.0
BZX84C13	Y3	13	12.4	14.1	5	30	170	1.0	0.1	8.0	7.0	11.0
BZX84C15	Y4	15	13.8	15.6	5	30	200	1.0	0.1	10.5	9.2	13.0
BZX84C16	Y5	16	15.3	17.1	5	40	200	1.0	0.1	11.2	10.4	14.0
BZX84C18	Y6	18	16.8	19.1	5	45	225	1.0	0.1	12.6	12.4	16.0
BZX84C20	Y7	20	18.8	21.2	5	55	225	1.0	0.1	14.0	14.4	18.0
BZX84C22	Y8	22	20.8	23.3	5	55	250	1.0	0.1	15.4	16.4	20.0
BZX84C24	Y9	24	22.8	25.6	5	70	250	1.0	0.1	16.8	18.4	22.0
BZX84C27	Y10	27	25.1	28.9	2	80	300	0.5	0.1	18.9	21.4	25.3
BZX84C30	Y11	30	28.0	32.0	2	80	300	0.5	0.1	21.0	24.4	29.4
BZX84C33	Y12	33	31.0	35.0	2	80	325	0.5	0.1	23.1	27.4	33.4
BZX84C36	Y13	36	34.0	38.0	2	90	350	0.5	0.1	25.2	30.4	37.4
BZX84C39	Y14	39	37.0	41.0	2	130	350	0.5	0.1	27.3	33.4	41.2
BZX84C43	Y15	43	40.0	46.0	2	100	700	1	0.1	32	10	12

Notes:

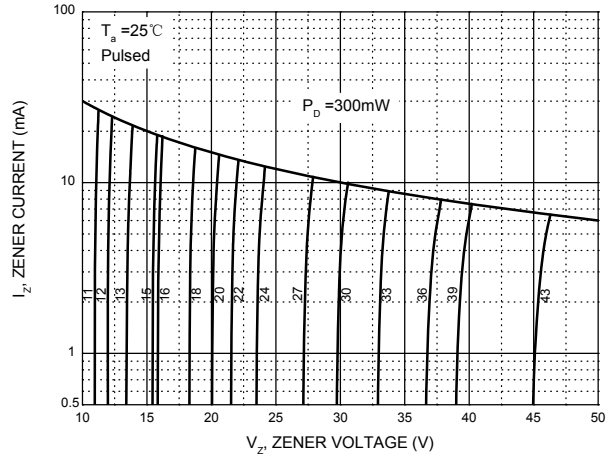
1. Tested with pulses, period=5ms, pulse width=300μs.
2. Valid provided that device terminals are kept at ambient temperature.
3. f=1kHz

Typical Characteristics

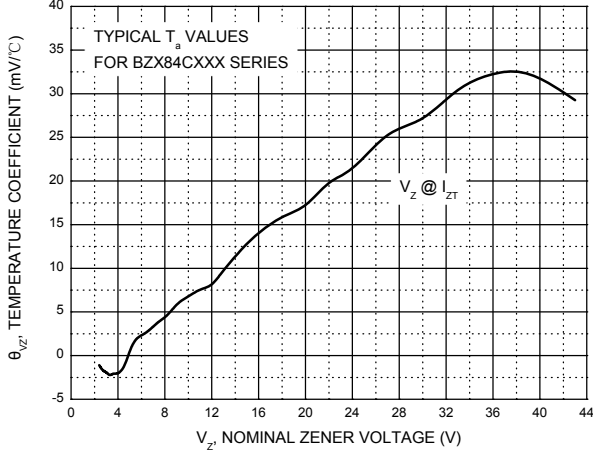
Zener Characteristics (V_z Up to 10 V)



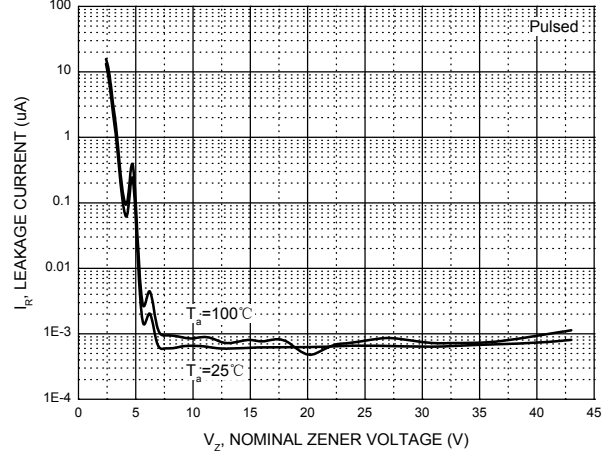
Zener Characteristics (11 V to 43 V)



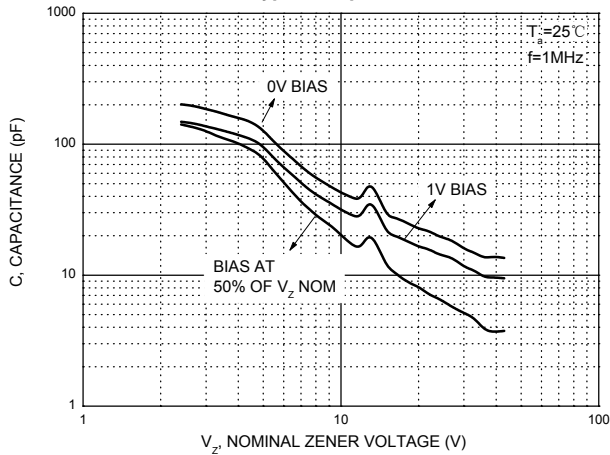
Temperature Coefficients



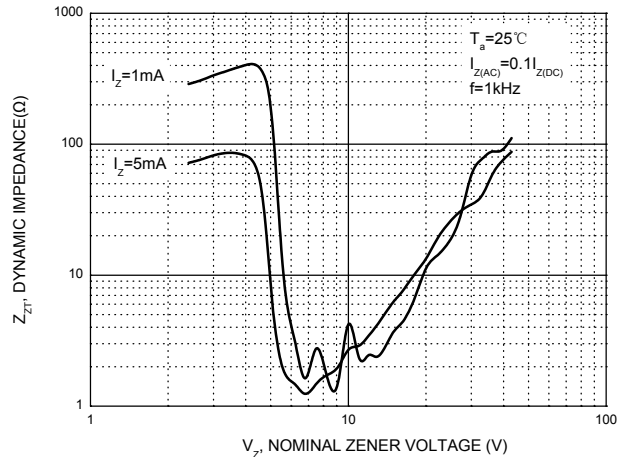
Typical Leakage Current



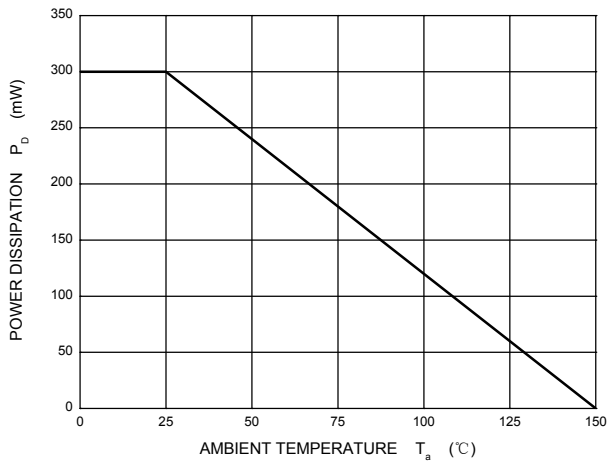
Typical Capacitance



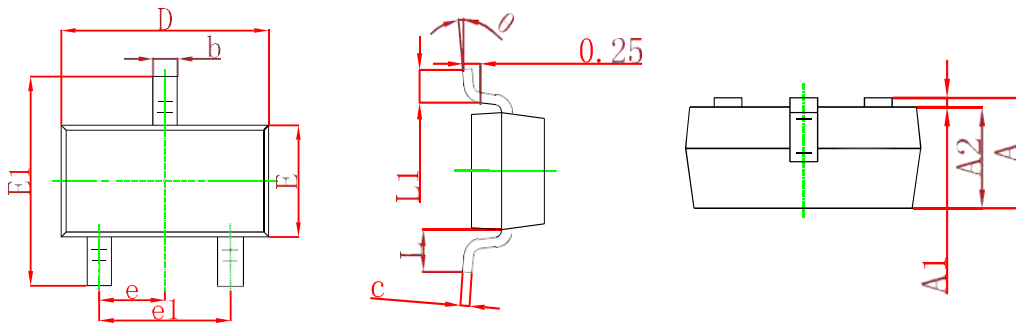
Effect of Zener Voltage on Zener Impedance



Power Derating Curve



Package Outlines (Dimensions in mm)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

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