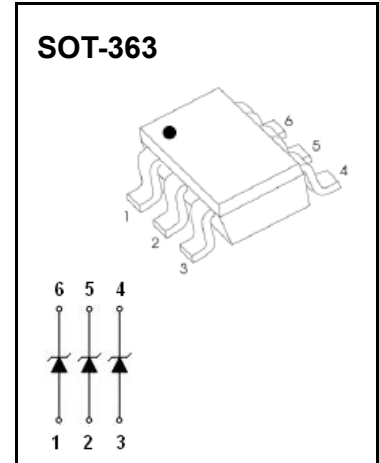


SOT-363 Plastic-Encapsulate Diodes

BZX84C2V4TW-BZX84C39TW ZENER DIODE

FEATURES

- Planar Die Construction
- 200mW Power Dissipation
- Zener Voltages from 2.4V - 39V
- Three isolated diode elements in single Ultra-Small Surface Mount Package



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(Note 1)	P_D	200	mW
Thermal Resistance from Junction to Ambient (Note 1)	$R_{\theta JA}$	625	$^\circ\text{C}/\text{W}$
Operation Junction and Storage Temperature Range	T_J, T_{stg}	-55 ~ +150	$^\circ\text{C}$



ELECTRICAL CHARACTERISTICS

T_a=25°C unless otherwise specified

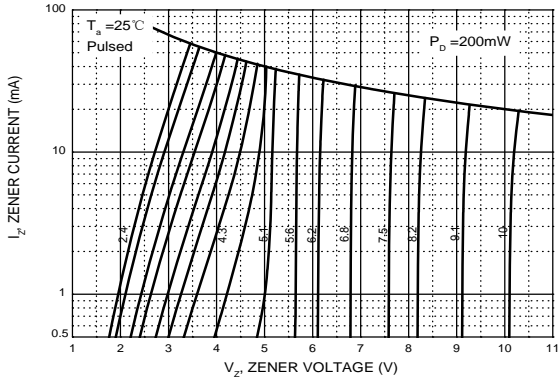
Type Number	Type Code	Zener Voltage Range (Note 2)				Maximum Zener Impedance (Note 3)			Maximum Reverse Current (Note 2)		Typical Temperature Coefficient @I _{ZTC} mV/°C		Test Current I _{ZTC} mA
		V _Z @I _{ZT}			I _{ZT}	Z _{ZT} @I _{ZT}	Z _{ZK} @I _{ZK}	I _{ZK}	I _R	V _R	Min	Max	
		Nom(V)	Min(V)	Max(V)	mA	Ω		mA	μA	V			
BZX84C2V4TW	KRB	2.4	2.2	2.6	5	100	600	0.5	50	1.0	-3.5	0	5
BZX84C2V7TW	KRC	2.7	2.5	2.9	5	100	600	1.0	20	1.0	-3.5	0	5
BZX84C3V0TW	KRD	3.0	2.8	3.2	5	95	600	1.0	10	1.0	-3.5	0	5
BZX84C3V3TW	KRE	3.3	3.1	3.5	5	95	600	1.0	5	1.0	-3.5	0	5
BZX84C3V6TW	KRF	3.6	3.4	3.8	5	90	600	1.0	5	1.0	-3.5	0	5
BZX84C3V9TW	KRG	3.9	3.7	4.1	5	90	600	1.0	3	1.0	-3.5	0	5
BZX84C4V3TW	KRH	4.3	4.0	4.6	5	90	600	1.0	3	1.0	-3.5	0	5
BZX84C4V7TW	KR1	4.7	4.4	5.0	5	80	500	1.0	3	2.0	-3.5	0.2	5
BZX84C5V1TW	KR2	5.1	4.8	5.4	5	60	480	1.0	2	2.0	-2.7	1.2	5
BZX84C5V6TW	KR3	5.6	5.2	6.0	5	40	400	1.0	1	2.0	-2.0	2.5	5
BZX84C6V2TW	KR4	6.2	5.8	6.6	5	10	150	1.0	3	4.0	0.4	3.7	5
BZX84C6V8TW	KR5	6.8	6.4	7.2	5	15	80	1.0	2	4.0	1.2	4.5	5
BZX84C7V5TW	KR6	7.5	7.0	7.9	5	15	80	1.0	1	5.0	2.5	5.3	5
BZX84C8V2TW	KR7	8.2	7.7	8.7	5	15	80	1.0	0.7	5.0	3.2	6.2	5
BZX84C9V1TW	KR8	9.1	8.5	9.6	5	15	100	1.0	0.5	6.0	3.8	7.0	5
BZX84C10TW	KR9	10	9.4	10.6	5	20	150	1.0	0.2	7.0	4.5	8.0	5
BZX84C11TW	KP1	11	10.4	11.6	5	20	150	1.0	0.1	8.0	5.4	9.0	5
BZX84C12TW	KP2	12	11.4	12.7	5	25	150	1.0	0.1	8.0	6.0	10.0	5
BZX84C13TW	KP3	13	12.4	14.1	5	30	170	1.0	0.1	8.0	7.0	11.0	5
BZX84C15TW	KP4	15	13.8	15.6	5	30	200	1.0	0.1	10.5	9.2	13.0	5
BZX84C16TW	KP5	16	15.3	17.1	5	40	200	1.0	0.1	11.2	10.4	14.0	5
BZX84C18TW	KP6	18	16.8	19.1	5	45	225	1.0	0.1	12.6	12.4	16.0	5
BZX84C20TW	KP7	20	18.8	21.2	5	55	225	1.0	0.1	14.0	14.4	18.0	5
BZX84C22TW	KP8	22	20.8	23.3	5	55	250	1.0	0.1	15.4	16.4	20.0	5
BZX84C24TW	KP9	24	22.8	25.6	5	70	250	1.0	0.1	16.8	18.4	22.0	5
BZX84C27TW	KPA	27	25.1	28.9	2	80	300	0.5	0.1	18.9	21.4	25.3	5
BZX84C30TW	KPB	30	28.0	32.0	2	80	300	0.5	0.1	21.0	24.4	29.4	5
BZX84C33TW	KPC	33	31.0	35.0	2	80	325	0.5	0.1	23.1	27.4	33.4	5
BZX84C36TW	KPD	36	34.0	38.0	2	90	350	0.5	0.1	25.2	30.4	37.4	5
BZX84C39TW	KPE	39	37.0	41.0	2	130	350	0.5	0.1	27.3	33.4	41.2	5

- Notes: 1. Valid provided that device terminals are kept at ambient temperature.
 2. Short duration pulse test used to minimize self-heating effect.
 3. f = 1kHz.

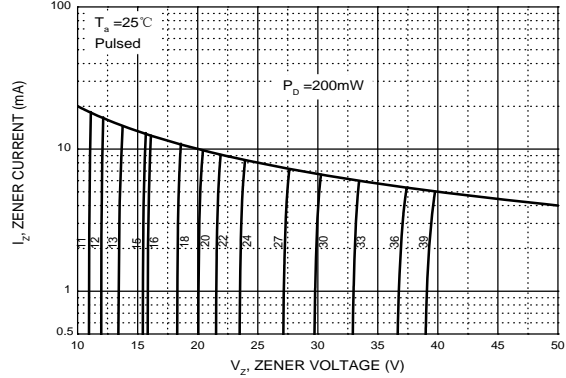


Typical Characteristics

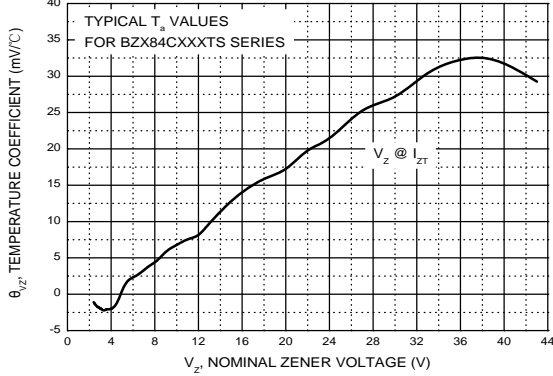
Zener Characteristics (V_z Up to 10 V)



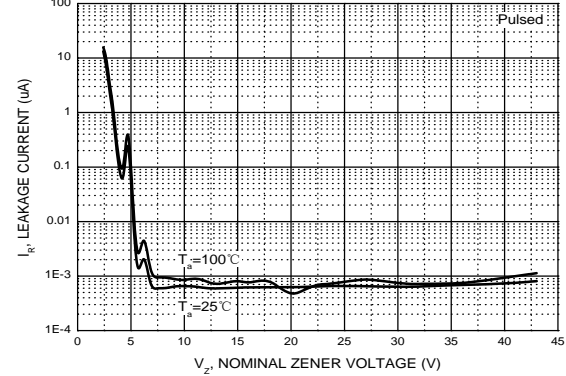
Zener Characteristics (11 V to 39 V)



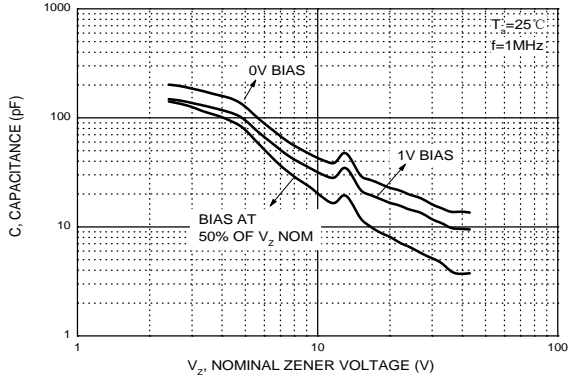
Temperature Coefficients



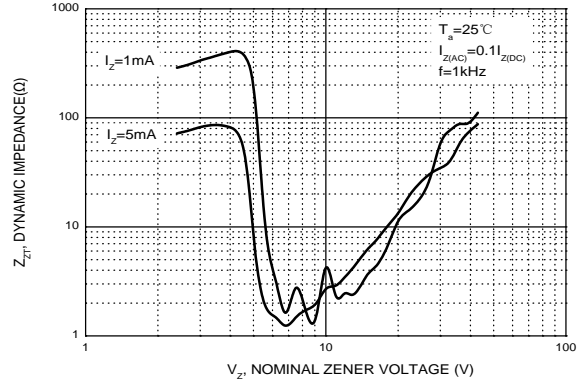
Typical Leakage Current



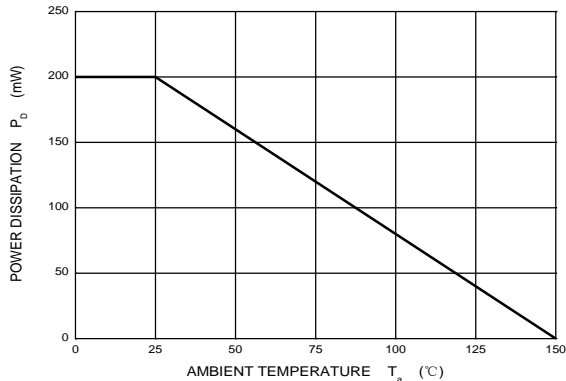
Typical Capacitance



Effect of Zener Voltage on Zener Impedance

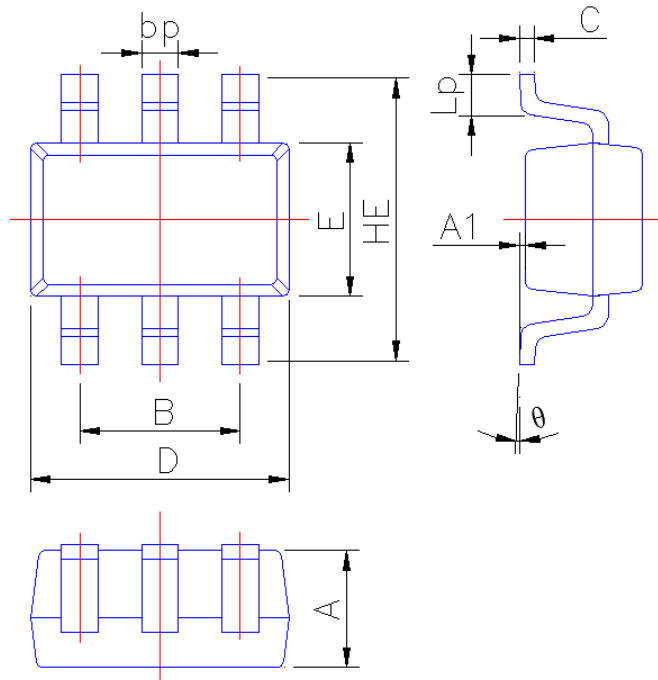


Power Derating Curve





SOT-363 Package Outline Dimensions



Symbol	Dimension in Millimeters	
	Min	Max
A	0.90	1.00
A1	0.010	0.100
B	1.20	1.40
bp	0.25	0.45
C	0.09	0.15
D	2.00	2.20
E	1.15	1.35
HE	2.15	2.55
Lp	0.25	0.46
θ	0°	6°