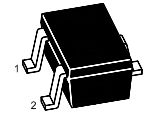
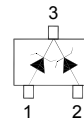


# BZX84C...CCW Series

## SILICON PLANAR ZENER DIODES



SOT-323 Plastic Package

1. Anode 2. Anode 3. Cathode

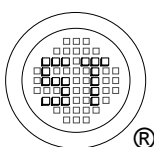
### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Power Dissipation	$P_D$	200	mW
Operating Junction and Storage Temperature Range	$T_j, T_{Stg}$	- 55 to + 150	$^\circ\text{C}$

### Electrical Characteristics at $T_a = 25\text{ }^\circ\text{C}$ ( $V_F = 0.9\text{ V Max. at } I_F = 10\text{ mA}$ )

Type	Marking Code	Zener Voltage Range <sup>1)</sup>			Dynamic Resistance				Reverse Current	
		$V_Z$		at $I_{ZT}$	$Z_{ZT}$	at $I_{ZT}$	$Z_{ZK}$	at $I_{ZK}$	$I_R$	at $V_R$
		Min.(V)	Max.(V)	mA	Max.( $\Omega$ )	mA	Max.( $\Omega$ )	mA	Max.( $\mu\text{A}$ )	V
BZX84C2V4CCW	NA	2.2	2.6	5	100	5	600	1	50	1
BZX84C2V7CCW	NB	2.5	2.9	5	100	5	600	1	20	1
BZX84C3V0CCW	NC	2.8	3.2	5	95	5	600	1	20	1
BZX84C3V3CCW	ND	3.1	3.5	5	95	5	600	1	5	1
BZX84C3V6CCW	NE	3.4	3.8	5	90	5	600	1	5	1
BZX84C3V9CCW	NF	3.7	4.1	5	90	5	600	1	3	1
BZX84C4V3CCW	NH	4	4.6	5	90	5	600	1	3	1
BZX84C4V7CCW	NJ	4.4	5	5	80	5	600	1	3	2
BZX84C5V1CCW	NK	4.8	5.4	5	60	5	500	1	2	2
BZX84C5V6CCW	NM	5.2	6	5	40	5	480	1	1	2
BZX84C6V2CCW	NN	5.8	6.6	5	10	5	400	1	3	4
BZX84C6V8CCW	NP	6.4	7.2	5	15	5	150	1	2	4
BZX84C7V5CCW	NR	7	7.9	5	15	5	80	1	1	5
BZX84C8V2CCW	NX	7.7	8.7	5	15	5	80	1	0.7	5
BZX84C9V1CCW	NY	8.5	9.6	5	15	5	80	1	0.5	6
BZX84C10CCW	NZ	9.4	10.6	5	20	5	100	1	0.2	7
BZX84C11CCW	PA	10.4	11.6	5	20	5	150	1	0.1	8
BZX84C12CCW	PB	11.4	12.7	5	25	5	150	1	0.1	8
BZX84C13CCW	PC	12.4	14.1	5	30	5	150	1	0.1	8
BZX84C15CCW	PD	13.8	15.6	5	30	5	170	1	0.1	10.5
BZX84C16CCW	PE	15.3	17.1	5	40	5	200	1	0.1	11.2
BZX84C18CCW	PF	16.8	19.1	5	45	5	200	1	0.1	12.6
BZX84C20CCW	PH	18.8	21.2	5	55	5	225	1	0.1	14
BZX84C22CCW	PJ	20.8	23.3	5	55	5	225	1	0.1	15.4
BZX84C24CCW	PK	22.8	25.6	5	70	5	250	1	0.1	16.8
BZX84C27CCW	PM	25.1	28.9	2	80	2	250	0.5	0.1	18.9
BZX84C30CCW	PN	28	32	2	80	2	300	0.5	0.1	21
BZX84C33CCW	PP	31	35	2	80	2	300	0.5	0.1	23.1
BZX84C36CCW	PR	34	38	2	90	2	325	0.5	0.1	25.2
BZX84C39CCW	PX	37	41	2	130	2	350	0.5	0.1	27.3

<sup>1)</sup> Tested with pulses  $t_p = 20\text{ ms}$ .



**SEMTECH ELECTRONICS LTD.**  
Subsidiary of Sino-Tech International (BVI) Limited



Dated : 11/09/2008

# BZX84C...CCW Series

Electrical Characteristics at  $T_a = 25^\circ\text{C}$  ( $V_F = 0.9\text{ V Max. at } I_F = 10\text{ mA}$ )

Type	Marking Code	Zener Voltage Range <sup>1)</sup>			Dynamic Resistance				Reverse Current	
		$V_Z$		at $I_{ZT}$	$Z_{ZT}$	at $I_{ZT}$	$Z_{ZK}$	at $I_{ZK}$	$I_R$	at $V_R$
		Min.(V)	Max.(V)	mA	Max.( $\Omega$ )	mA	Max.( $\Omega$ )	mA	Max.( $\mu\text{A}$ )	V
BZX84C43CCW	PY	40	46	2	150	2	375	0.5	0.1	30.1
BZX84C47CCW	PZ	44	50	2	170	2	375	0.5	0.1	32.9
BZX84C51CCW	RA	48	54	2	180	2	400	0.5	0.1	35.7
BZX84C56CCW	RB	52	60	2	200	2	425	0.5	0.1	39.2
BZX84C62CCW	RC	58	66	2	215	2	450	0.5	0.1	43.4
BZX84C68CCW	RD	64	72	2	240	2	475	0.5	0.1	47.6
BZX84C75CCW	RE	70	79	2	255	2	500	0.5	0.1	52.5

<sup>1)</sup> Tested with pulses  $t_p = 20\text{ ms}$ .

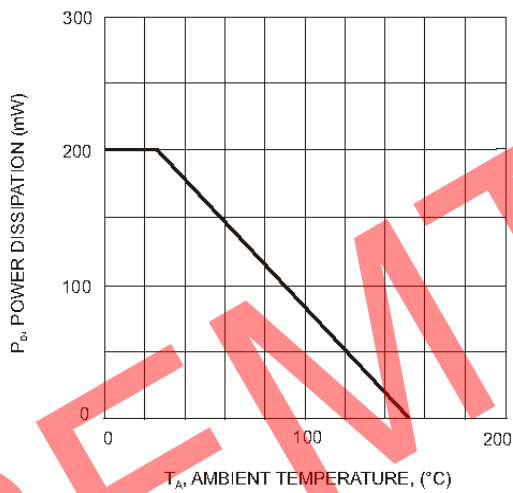


Fig. 1. Power Derating Curve

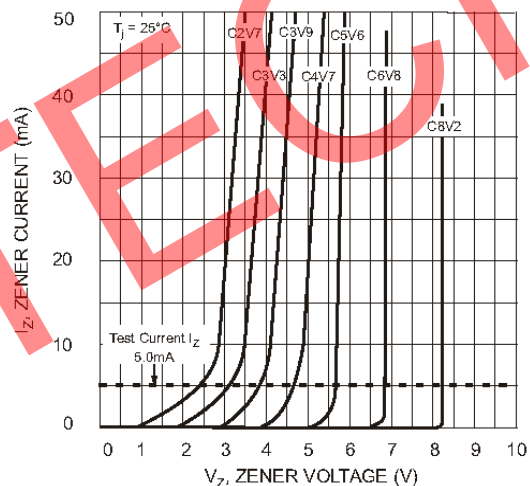


Fig. 2. Zener Breakdown Characteristics

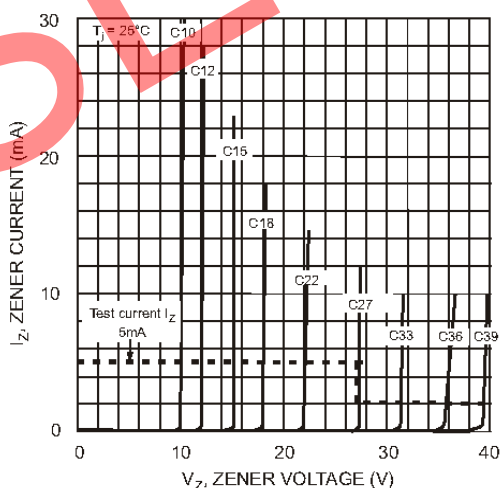


Fig. 3. Zener Breakdown Characteristics

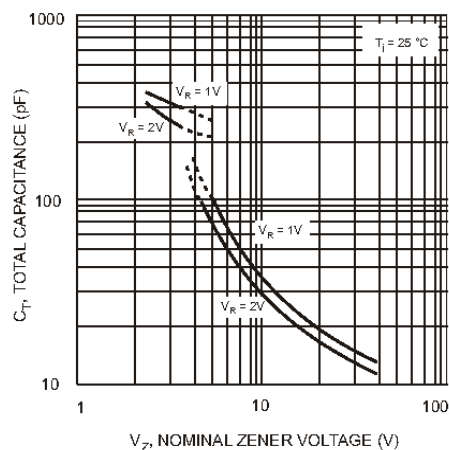
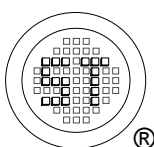


Fig. 4. Total Capacitance vs Nominal Zener Voltage



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