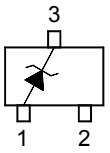
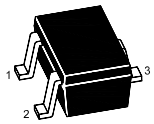
BZX84C…W Series

SILICON PLANAR ZENER DIODES





SOT-323 Plastic Package

1. Anode 3. Cathode

Absolute Maximum Ratings (T_a = 25 °C)

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

Electrical Characteristics (T_a = 25 °C unless otherwise noted, V_F < 0.9 V at I_F = 10 mA)

Type	Marking Code	Zener Voltage Range [1]			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.(Ω)	mA	Max.(Ω)	mA	Max.(μA)	V
BZX84C2V4W	EA	2.2	2.6	5	100	5	600	1	50	1
BZX84C2V7W	EB	2.5	2.9	5	100	5	600	1	20	1
BZX84C3V0W	EC	2.8	3.2	5	95	5	600	1	20	1
BZX84C3V3W	ED	3.1	3.5	5	95	5	600	1	5	1
BZX84C3V6W	EE	3.4	3.8	5	90	5	600	1	5	1
BZX84C3V9W	EF	3.7	4.1	5	90	5	600	1	3	1
BZX84C4V3W	EH	4	4.6	5	90	5	600	1	3	1
BZX84C4V7W	EJ	4.4	5	5	80	5	600	1	3	2
BZX84C5V1W	EK	4.8	5.4	5	60	5	500	1	2	2
BZX84C5V6W	EM	5.2	6	5	40	5	480	1	1	2
BZX84C6V2W	EN	5.8	6.6	5	10	5	400	1	3	4
BZX84C6V8W	EP	6.4	7.2	5	15	5	150	1	2	4
BZX84C7V5W	ER	7	7.9	5	15	5	80	1	1	5
BZX84C8V2W	EX	7.7	8.7	5	15	5	80	1	0.7	5
BZX84C9V1W	EY	8.5	9.6	5	15	5	80	1	0.5	6
BZX84C10W	EZ	9.4	10.6	5	20	5	100	1	0.2	7
BZX84C11W	FA	10.4	11.6	5	20	5	150	1	0.1	8
BZX84C12W	FB	11.4	12.7	5	25	5	150	1	0.1	8
BZX84C13W	FC	12.4	14.1	5	30	5	150	1	0.1	8
BZX84C15W	FD	13.8	15.6	5	30	5	170	1	0.1	10.5
BZX84C16W	FE	15.3	17.1	5	40	5	200	1	0.1	11.2
BZX84C18W	FF	16.8	19.1	5	45	5	200	1	0.1	12.6
BZX84C20W	FH	18.8	21.2	5	55	5	225	1	0.1	14
BZX84C22W	FJ	20.8	23.3	5	55	5	225	1	0.1	15.4
BZX84C24W	FK	22.8	25.6	5	70	5	250	1	0.1	16.8
BZX84C27W	FM	25.1	28.9	2	80	2	250	0.5	0.1	18.9
BZX84C30W	FN	28	32	2	80	2	300	0.5	0.1	21
BZX84C33W	FP	31	35	2	80	2	300	0.5	0.1	23.1
BZX84C36W	FR	34	38	2	90	2	325	0.5	0.1	25.2
BZX84C39W	FX	37	41	2	130	2	350	0.5	0.1	27.3

[1] Tested with pulses tp = 20 ms.

Electrical Characteristics (T_a = 25 °C unless otherwise noted, V_F < 0.9 V at I_F = 10 mA)

Type	Marking Code	Zener Voltage Range [1]			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.(Ω)	mA	Max.(Ω)	mA	Max.(μA)	V
BZX84C43W	FY	40	46	2	150	2	375	0.5	0.1	30.1
BZX84C47W	FZ	44	50	2	170	2	375	0.5	0.1	32.9
BZX84C51W	KA	48	54	2	180	2	400	0.5	0.1	35.7
BZX84C56W	KB	52	60	2	200	2	425	0.5	0.1	39.2
BZX84C62W	KC	58	66	2	215	2	450	0.5	0.1	43.4
BZX84C68W	KD	64	72	2	240	2	475	0.5	0.1	47.6
BZX84C75W	KE	70	79	2	255	2	500	0.5	0.1	52.5

[1] Tested with pulses tp = 20 ms.

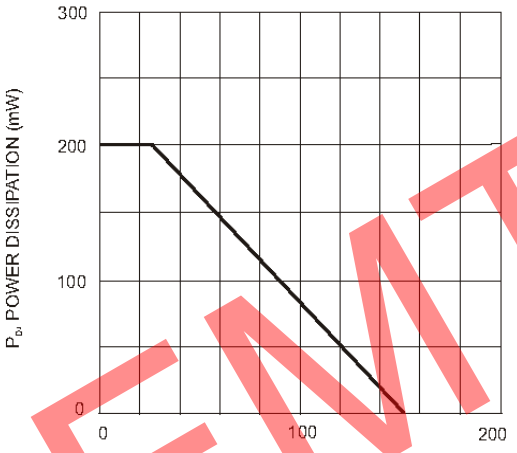


Fig. 1. Power Derating Curve

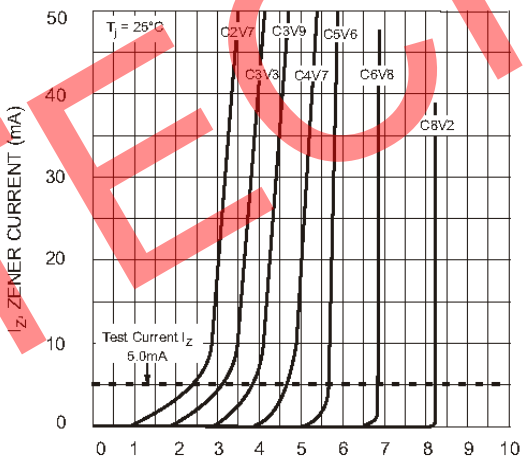


Fig. 2 Zener Breakdown Characteristics

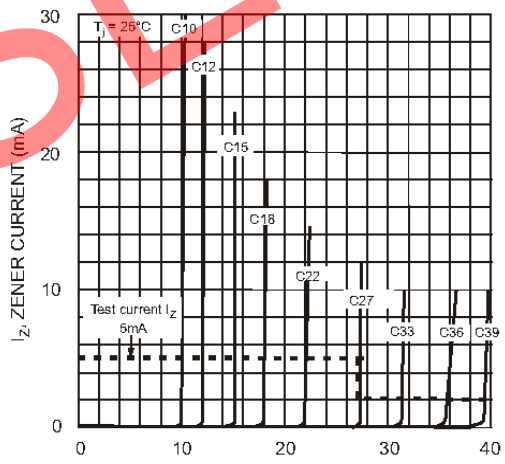


Fig. 3. Zener Breakdown Characteristics

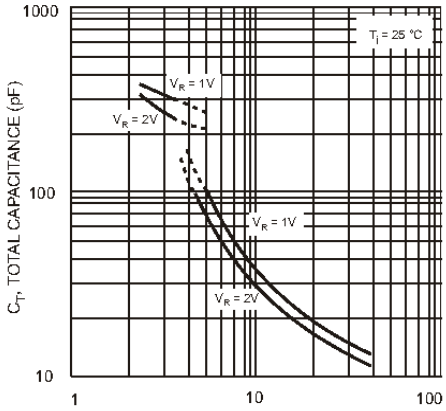


Fig. 4. Total Capacitance vs Nominal Zener Voltage