

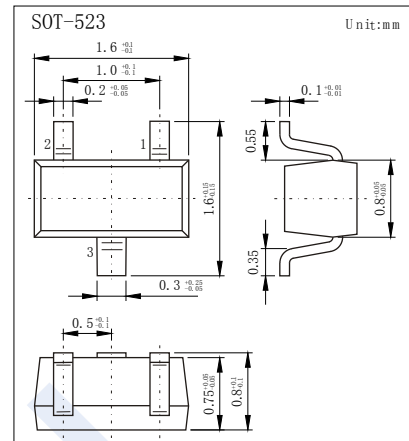
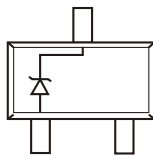
## ZENER DIODES

### BZX84C2V4T-BZX84C39T

(KZX84C2V4T-KZX84C39T)

#### ■ Features

- Ultra-Small Surface Mount Package
- Planar Die Construction
- Lead Free/ROHS Compliant



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

Parameter	Symbol	Rating	Unit
Forward voltage @ $I_F=10\text{mA}$	$V_F$	0.9	V
Power Dissipation	$P_D$	150	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	833	$^\circ\text{C/W}$
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage temperature range	$T_{stg}$	-65 to 150	

## BZX84C2V4T-BZX84C39T

### (KZX84C2V4T-KZX84C39T)

■ Electrical Characteristics Ta = 25°C

Type Number	Marking Code	Zener Voltage Range (Note 1)				Maximum Zener Impedance (Note 2)			Maximum Reverse Current (Note 1)		Temperature Coefficient of Zener Voltage @ I <sub>ZT</sub> = 5mA (mV/°C)	
		V <sub>Z</sub> @ I <sub>ZT</sub>			I <sub>ZT</sub>	Z <sub>ZT</sub> @ I <sub>ZT</sub>	Z <sub>ZK</sub> @ I <sub>ZK</sub>	I <sub>ZK</sub>	I <sub>R</sub>	@V <sub>R</sub>	Min	Max
		Nom (V)	Min (V)	Max (V)	mA	Ω	mA	μA	V			
BZX84C2V4T	RB	2.4	2.2	2.6	5.0	100	600	1.0	50	1.0	-3.5	0
BZX84C2V7T	RC	2.7	2.5	2.9	5.0	100	600	1.0	20	1.0	-3.5	0
BZX84C3V0T	RD	3.0	2.8	3.2	5.0	95	600	1.0	20	1.0	-3.5	0
BZX84C3V3T	RE	3.3	3.1	3.5	5.0	95	600	1.0	5.0	1.0	-3.5	0
BZX84C3V6T	RF	3.6	3.4	3.8	5.0	90	600	1.0	5.0	1.0	-3.5	0
BZX84C3V9T	RG	3.9	3.7	4.1	5.0	90	600	1.0	3.0	1.0	-3.5	0
BZX84C4V3T	RH	4.3	4.0	4.6	5.0	90	600	1.0	3.0	1.0	-3.5	0
BZX84C4V7T	R1	4.7	4.4	5.0	5.0	80	600	1.0	3.0	2.0	-3.5	0.2
BZX84C5V1T	R2	5.1	4.8	5.4	5.0	60	500	1.0	2.0	2.0	-2.7	1.2
BZX84C5V6T	R3	5.6	5.2	6.0	5.0	40	480	1.0	1.0	2.0	-2.0	2.5
BZX84C6V2T	R4	6.2	5.8	6.6	5.0	10	400	1.0	3.0	4.0	0.4	3.7
BZX84C6V8T	R5	6.8	6.4	7.2	5.0	15	150	1.0	2.0	4.0	1.2	4.5
BZX84C7V5T	R6	7.5	7.0	7.9	5.0	15	80	1.0	1.0	5.0	2.5	5.3
BZX84C8V2T	R7	8.2	7.7	8.7	5.0	15	80	1.0	0.7	5.0	3.2	6.2
BZX84C9V1T	R8	9.1	8.5	9.6	5.0	15	80	1.0	0.5	6.0	3.8	7.0
BZX84C10T	R9	10	9.4	10.6	5.0	20	100	1.0	0.2	7.0	4.5	8.0
BZX84C11T	P1	11	10.4	11.6	5.0	20	150	1.0	0.1	8.0	5.4	9.0
BZX84C12T	P2	12	11.4	12.7	5.0	25	150	1.0	0.1	8.0	6.0	10.0
BZX84C13T	P3	13	12.4	14.1	5.0	30	150	1.0	0.1	8.0	7.0	11.0
BZX84C15T	P4	15	13.8	15.6	5.0	30	170	1.0	0.1	10.5	9.2	13.0
BZX84C16T	P5	16	15.3	17.1	5.0	40	200	1.0	0.1	11.2	10.4	14.0
BZX84C18T	P6	18	16.8	19.1	5.0	45	200	1.0	0.1	12.6	12.4	16.0
BZX84C20T	P7	20	18.8	21.2	5.0	55	225	1.0	0.1	14.0	14.4	18.0
BZX84C22T	P8	22	20.8	23.3	5.0	55	225	1.0	0.1	15.4	16.4	20.0
BZX84C24T	P9	24	22.8	25.6	5.0	70	250	1.0	0.1	16.8	18.4	22.0
BZX84C27T	PA	27	25.1	28.9	2.0	80	250	0.5	0.1	18.9	21.4	25.3
BZX84C30T	PB	30.0	28.0	32.0	2.0	80	300	0.5	0.1	21.0	24.4	29.4
BZX84C33T	PC	33.0	31.0	35.0	2.0	80	300	0.5	0.1	23.1	27.4	33.4
BZX84C36T	PD	36.0	34.0	38.0	2.0	90	325	0.5	0.1	25.2	30.4	37.4
BZX84C39T	PE	39.0	37.0	41.0	2.0	130	350	0.5	0.1	27.3	33.4	41.2

- Notes: 1. Short duration pulse test used to minimize self-heating effect.  
2. f = 1KHz.

# BZX84C2V4T-BZX84C39T

(KZX84C2V4T-KZX84C39T)

■ Typical Characteristics

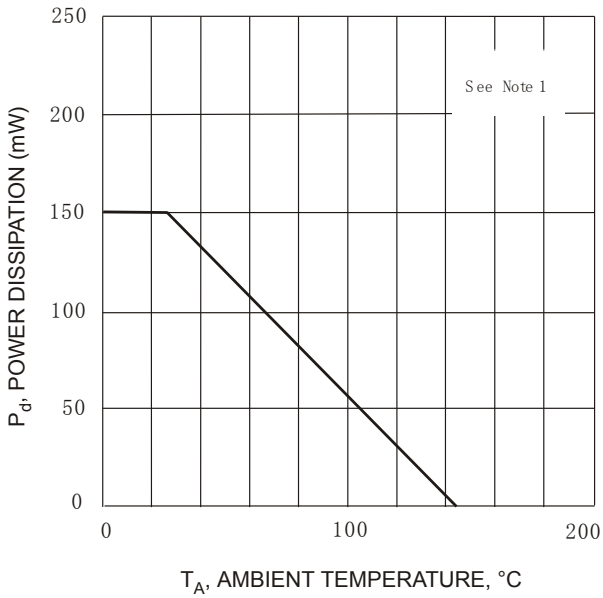


Fig. 1. Power Derating Curve

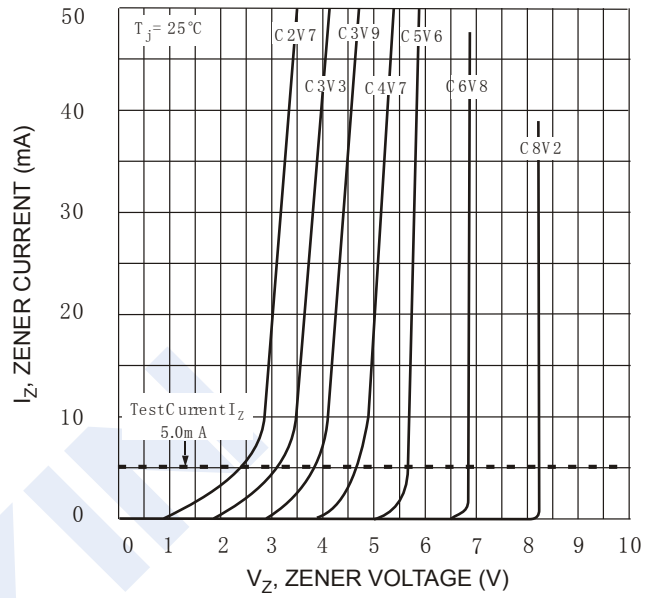


Fig. 2. Zener Breakdown Characteristics

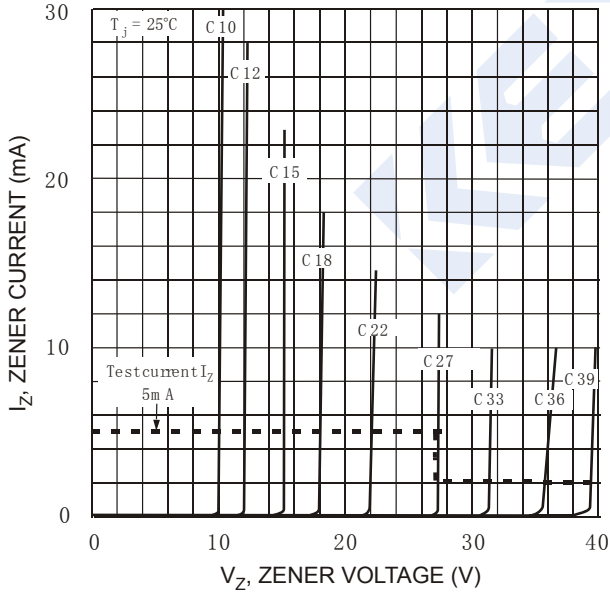


Fig. 3. Zener Breakdown Characteristics

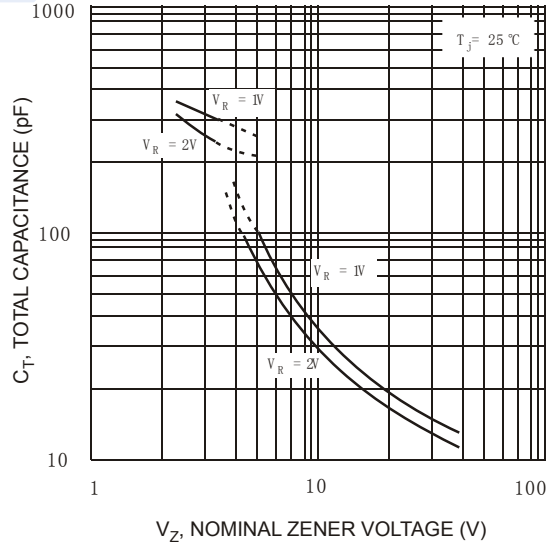


Fig. 4. Total Capacitance vs Nominal Zener Voltage