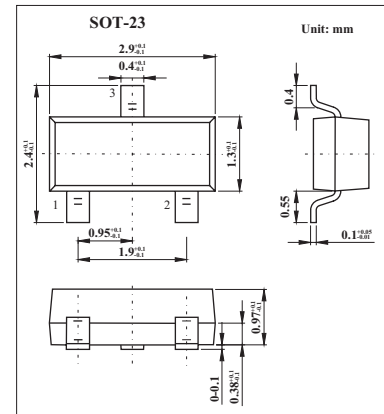


## 350mW Surface Mount Zener Diodes

### BZX84C39

#### ■ Features

- Planar Die Construction
- 350mW Power Dissipation
- Ideally Suited for Automated Assembly Processes



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

Parameter	Symbol	Rating	Unit
Forward Voltage at $I_F = 10\text{ mA}$	$V_F$	0.9	V
Power Dissipation *	$P_D$	350	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_s$	-65 to + 150	$^\circ\text{C}$
Thermal Resistance Junction to Ambient Air *	$R_{thA}$	417	$^\circ\text{C/W}$

\*Device mounted on FR-4 PC board with recommended pad layout,

#### ■ Electrical Characteristics $T_a = 25^\circ\text{C}$ (unless otherwise noted)

Type Number	Zener Voltage Range *1			Maximum Zener Impedance *2			Maximum Reverse Current *1		Typical Temperature Coefficient @ $I_{zT}$ mV/ $^\circ\text{C}$		
	$V_z @ I_{zT}$			$Z_{zT} @ I_{zT}$	$Z_{zK} @ I_{zK}$		$I_R$	$V_R$	Min	Max	
	Nom (V)	Min (V)	Max (V)	mA	$\Omega$	$\Omega$	mA	$\mu\text{A}$			V
BZX84C39	39	37.0	41.0	2.0	130	350	0.5	0.1	27.3	33.4	41.2

\*1. Short duration test pulse used to minimize self-heating effect.

\*2.  $f = 1\text{ KHz}$ .

#### ■ Marking

Marking	Y14
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### BZX84C39

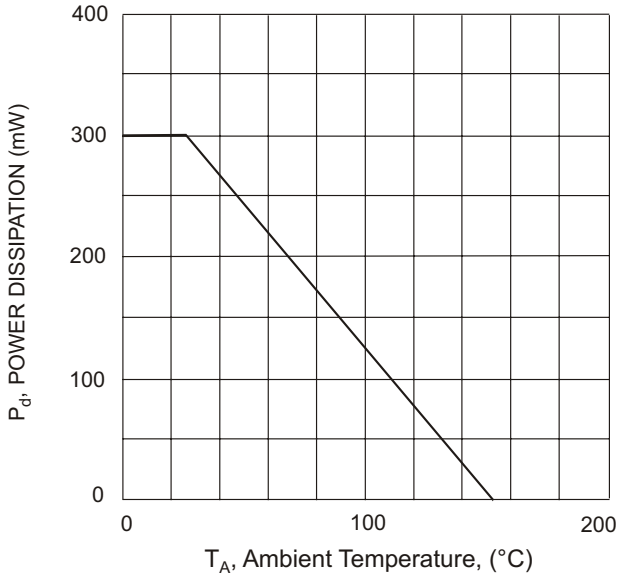


Fig. 1 Power Derating Curve

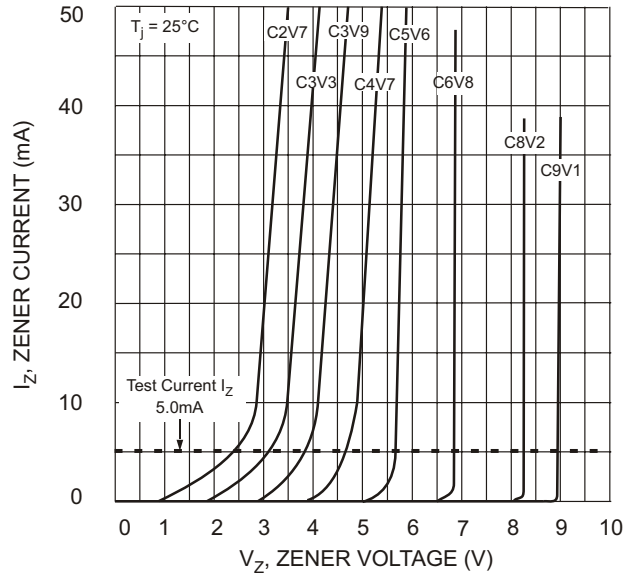


Fig. 2 Zener Breakdown Characteristics

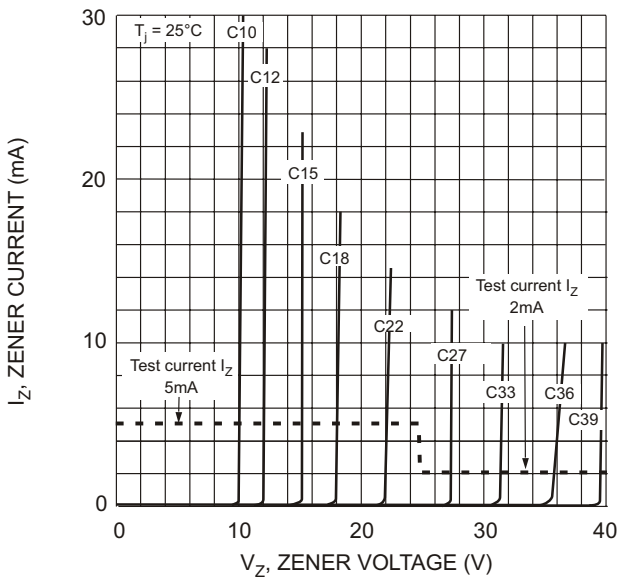


Fig. 3 Zener Breakdown Characteristics

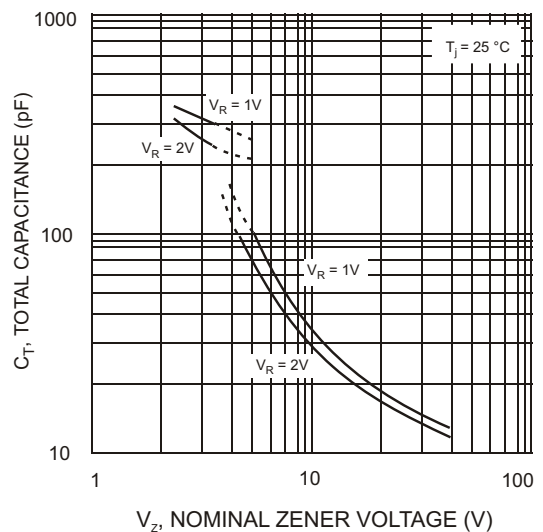


Fig. 4 Total Capacitance vs. Nominal Zener Voltage