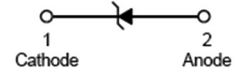
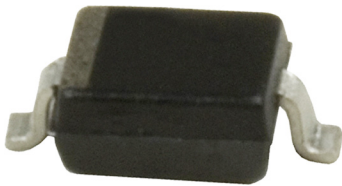


# Surface Mount Zener Diode



SOD-123

## Features:

- Planar Die Construction
- 500mW Power Dissipation On Ceramic PCB
- General Purpose, Medium Current
- Ideally Suited for Automated Assembly Processes

## Applications:

- Zener diode
- Ultra-small surface mount package

## Maximum Rating @ T<sub>A</sub> = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Forward voltage @ I <sub>F</sub> =10mA	V <sub>F</sub>	0.9	V
Power dissipation	P <sub>D</sub>	500	mW
Thermal resistance, junction to ambient air	R <sub>θJA</sub>	305	°C/W
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature range	T <sub>stg</sub>	-65 to +150	°C

**Note** : Device mounted on ceramic PCB; 7.6mm × 9.4mm × 0.87mm with pad areas 25mm<sup>2</sup>

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

When provided, otherwise, parts are provided with date code only, and type number identifications appears on reel only.

f = 1kHz

## Electrical Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified

Type Number	Marking Code	Zener Voltage Range				Maximum Zener Impedance			Maximum Reverse Current		Typical Temperature Coefficient@ I <sub>ZTC</sub> mV/°C		Test Current I <sub>ZTC</sub> mA
		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>	I <sub>ZTC</sub> mV/°C		
		Nom(V)	Min(V)	Max(V)	mA	Ω	mA	μA	V	Min	Max		
BZT52C30	WQ	30	28	32	2	80	300	0.5	0.1	21	24.4	29.4	2

# Surface Mount Zener Diode

Typical Characteristics @  $T_A = 25^\circ\text{C}$  unless otherwise specified

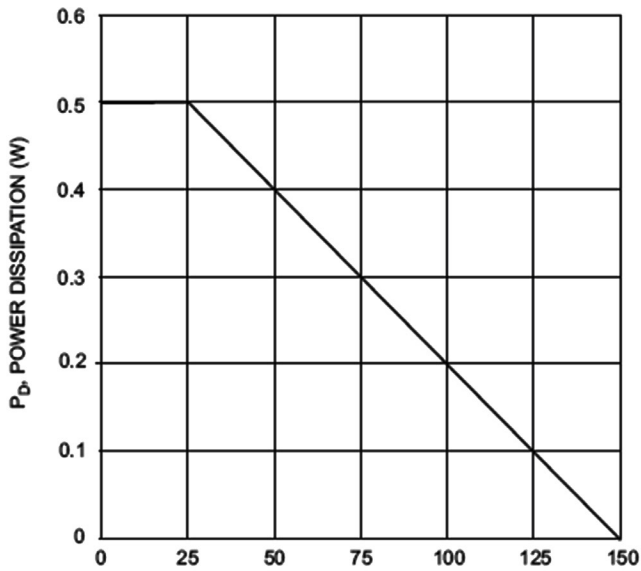


Fig. 1 Power Dissipation vs Ambient Temperature

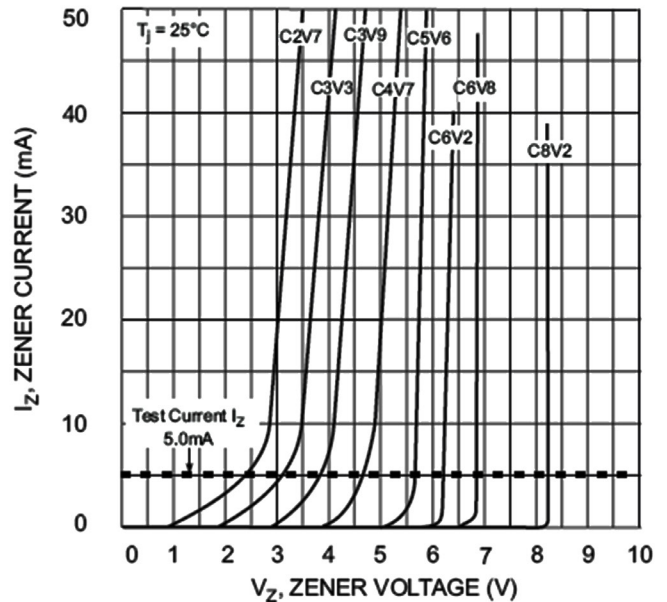


Fig. 2 Zener Breakdown Characteristics

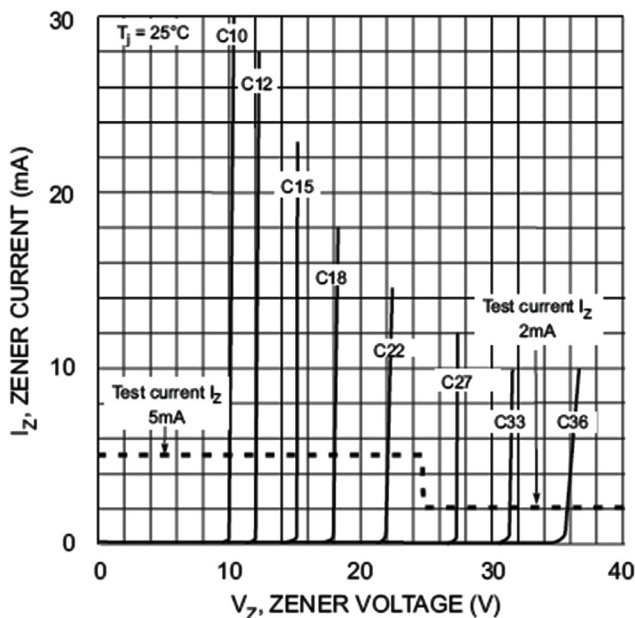


Fig. 3 Zener Breakdown Characteristics

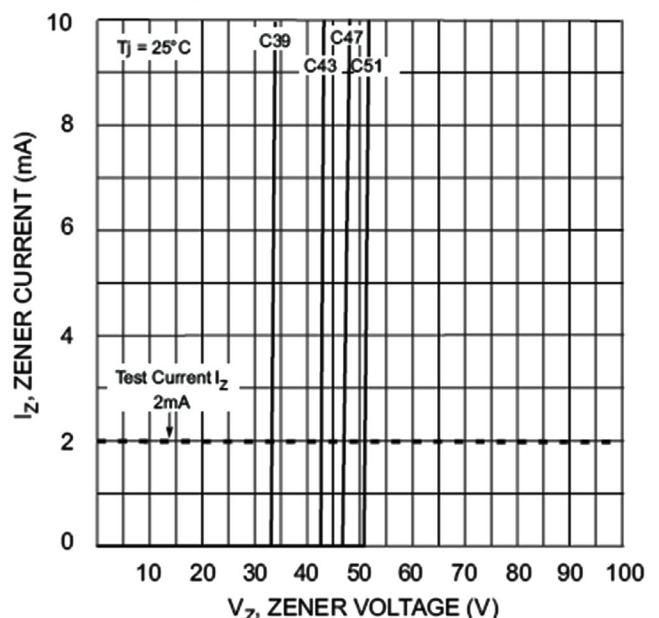


Fig. 4 Zener Breakdown Characteristics

# Surface Mount Zener Diode

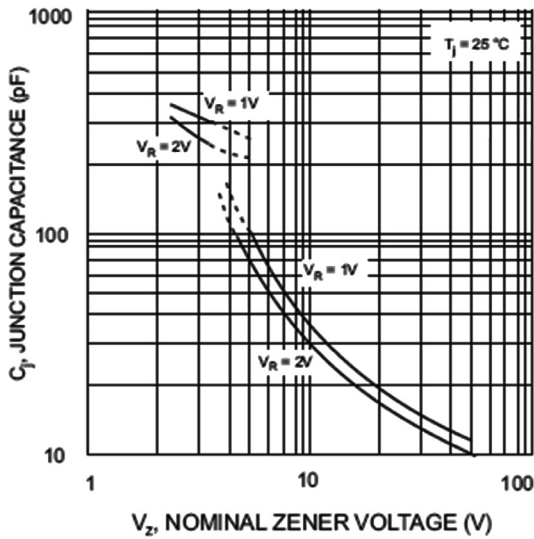
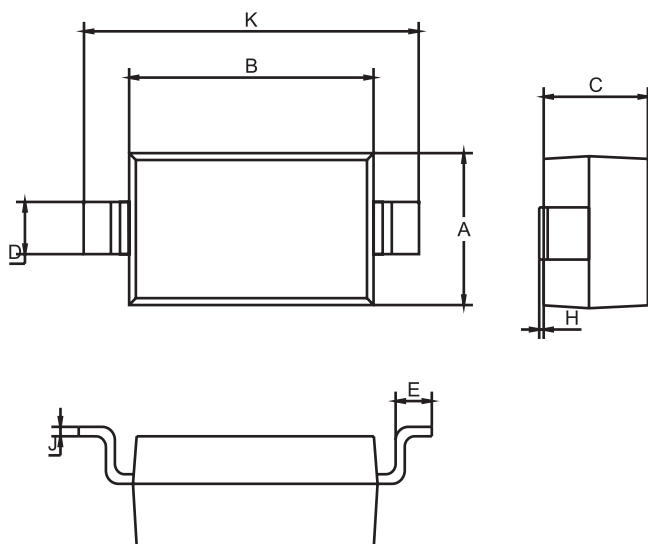


Fig. 5 Junction Capacitance vs Nominal Zener Voltage

## Package Outline

Plastic surface mounted package

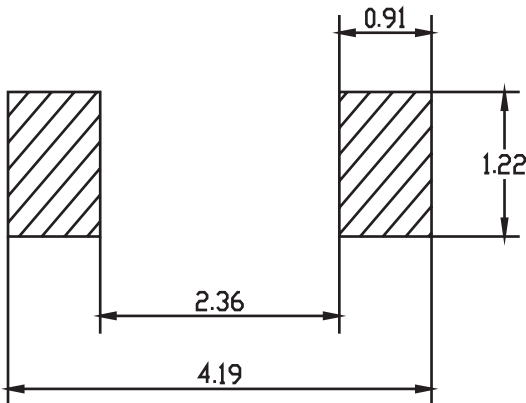


SOD-123		
Dim	Min	Max
A	1.4	1.8
B	2.55	2.85
C	1.15 Typical	
D	0.5	0.6
E	0.3	0.4
H	0.02	0.10
J	0.1 Typical	
K	3.55	3.85
All Dimensions in mm		

# Surface Mount Zener Diode

**multicomp** PRO

## Soldering Footprint



## Package Information

Device	Package	Shipping
BZT52C30-7-F	SOD-123	3,000/Tape & Reel

## Part Number Table

Description	Part Number
Surface Mount Zener Diode	BZT52C30-7-F

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