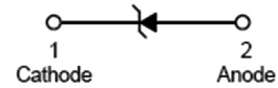


# Surface Mount Zener Diode

multicomp **PRO**



SOD-323

## Features:

- Planar Die Construction
- 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>	200	mW
Thermal resistance, junction to ambient air	R <sub>θjA</sub>	625	°C/W
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature range	T <sub>stg</sub>	-65 to +150	°C

**Note** : Valid provided that device terminals are kept at ambient temperature.  
Short duration test pulse used in minimize self-heating effect.  
f = 1kHz.

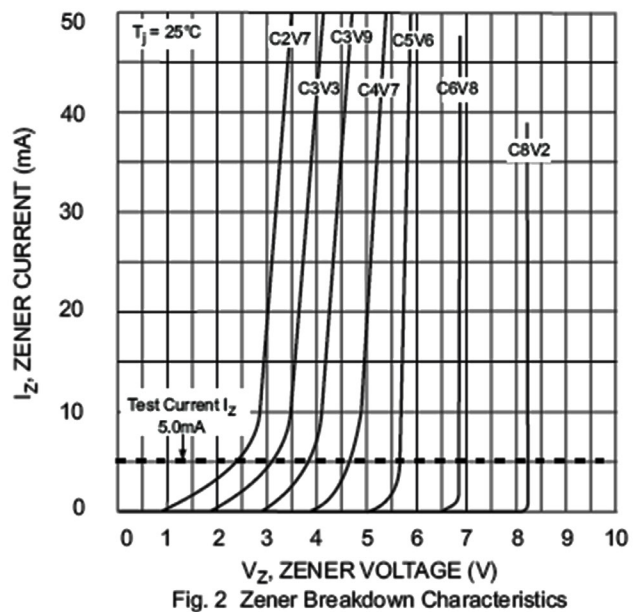
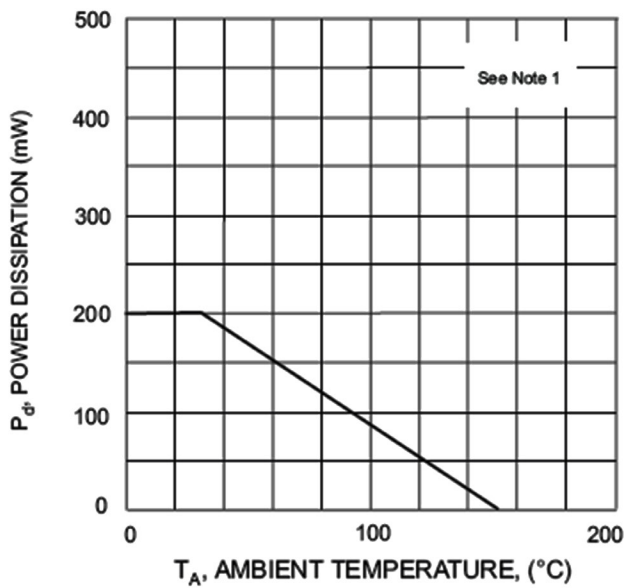
# Surface Mount Zener Diode

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

Type Number	Marking Code	Zener Voltage Range				Maximum Zener Impedance			Maximum Reverse Current		Typical Temperature Coefficient @ $I_{ZTC}$ mV/ $^\circ\text{C}$	
		$V_z @ I_{ZT}$			$I_{ZT}$	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	$I_{ZK}$	$I_R$	@ $V_R$	Min	Max
		Nom(V)	Min(V)	Max(V)	mA	$\Omega$	mA	$\mu\text{A}$	V			
BZT52C18S	WL	18	16.8	19.1	5	45	225	1	0.1	12.6	12.4	16

**Note :** Valid provided that device terminals are kept at ambient temperature.  
 Tested with pulses, period = 5ms, pulse width = 300 $\mu\text{s}$ .  
 $f = 1\text{kHz}$ .

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



# Surface Mount Zener Diode

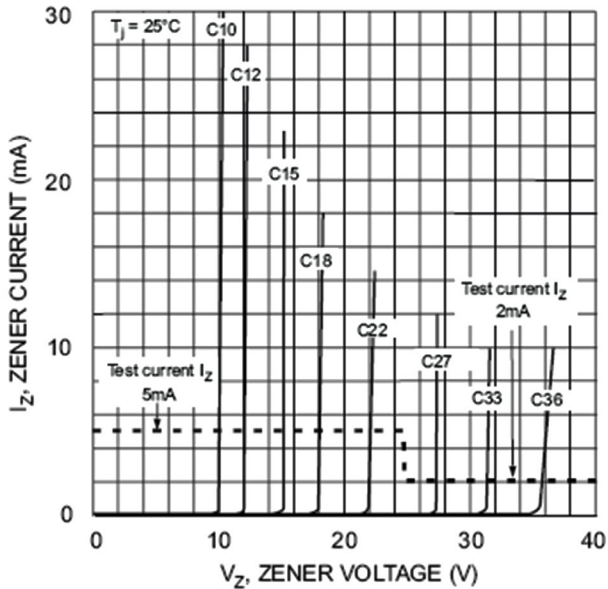


Fig. 3 Zener Breakdown Characteristics

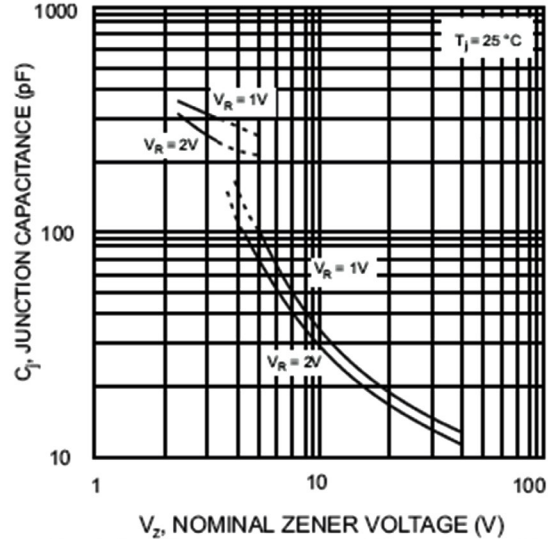
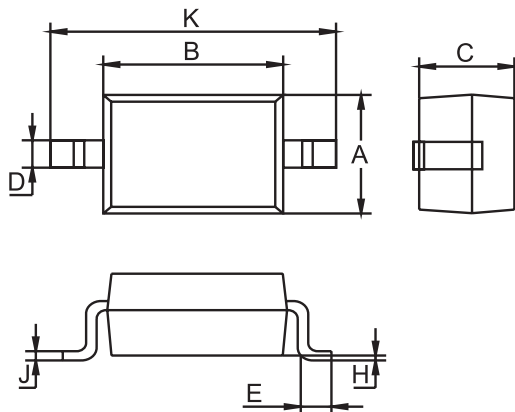


Fig. 4 Junction Capacitance vs Nominal Zener Voltage

## Package Outline

Plastic surface mounted package

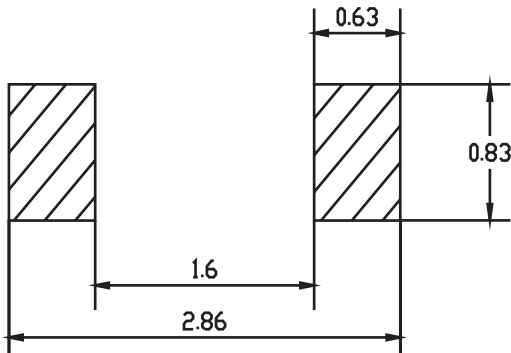


SOD-323		
Dim	Min	Max
A	1.275	1.325
B	1.675	1.725
C	0.9 Typical	
D	0.25	0.35
E	0.27	0.37
H	0.02	0.1
J	0.1 Typical	
K	2.6	2.7
All Dimensions in mm		

# Surface Mount Zener Diode

**multicomp** PRO

## Soldering Footprint



## Package Information

Device	Package	Shipping
BZT52C18S-7-F	SOD-323	3,000/Tape & Reel

## Part Number Table

Description	Part Number
Surface Mount Zener Diode	BZT52C18S-7-F

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