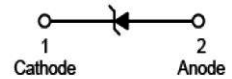


# Surface Mount Zener Diode



### Features:

- Planar Die Construction
- General Purpose, Medium Current
- Ideally Suited For Automated Assembly Processes



### Applications:

Zener diode  
Ultra-small surface mount package

### Max. Rating @ TA = 25°C unless otherwise specified

Parameter	Symbol	Limits	Unit
Forward voltage @ IF = 10mA	VF	0.9	V
Power dissipation	PD	200	mW
Thermal resistance junction to ambient air	RθJA	625	°C/W
Operating junction temperature range	Tj	150	°C
Storage temperature range	TSTG	-65 to +150	°C

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

### Electrical Characteristics @ TA = 25°C unless otherwise specified

Marking Code	Zener Voltage Range				Max. Zener Impedance			Max. Reverse Current		Typical Temperature Coefficient@ IZTC mV/°C	
	Vz @ IZT			IZT	ZzT@IZT	ZzK@IzK	IzK	IR	@VR	Min.	Max.
	Nom(V)	Min(V)	Max(V)	mA	Ω	mA	μA	V			
WH	12	11.4	12.7	5	25	150	1	0.1	8	6	10

**Note** : Valid provided that device terminals are kept at ambient temperature  
Tested with pulses, period = 5ms, pulse width = 300μs  
f = 1kHz

# Surface Mount Zener Diode

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

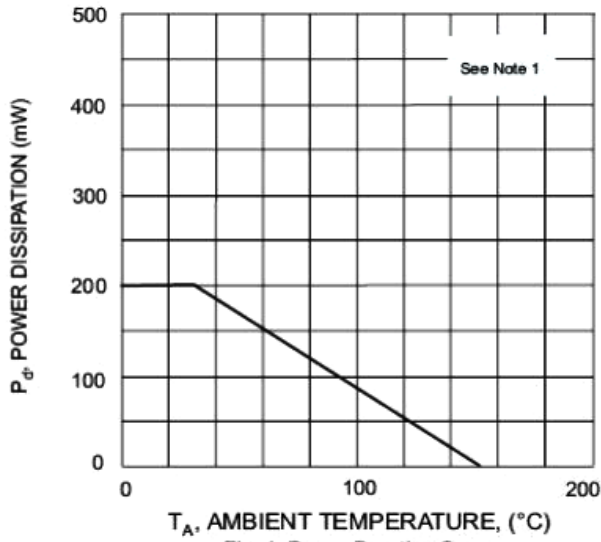


Fig. 1 Power Derating Curve

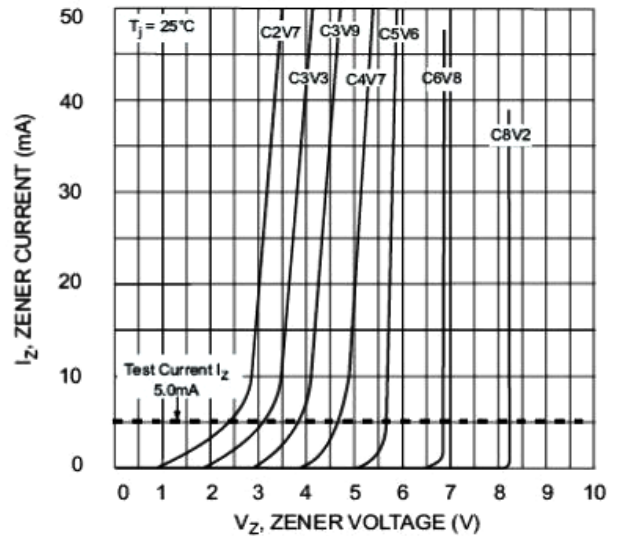


Fig. 2 Zener Breakdown Characteristics

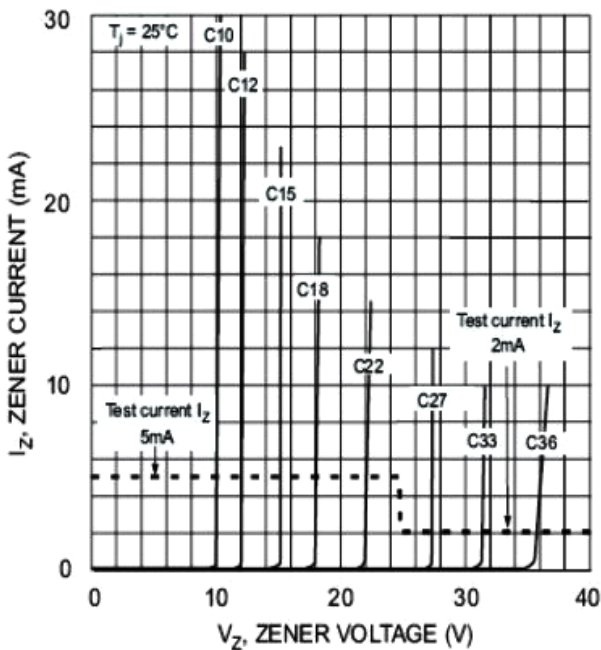


Fig. 3 Zener Breakdown Characteristics

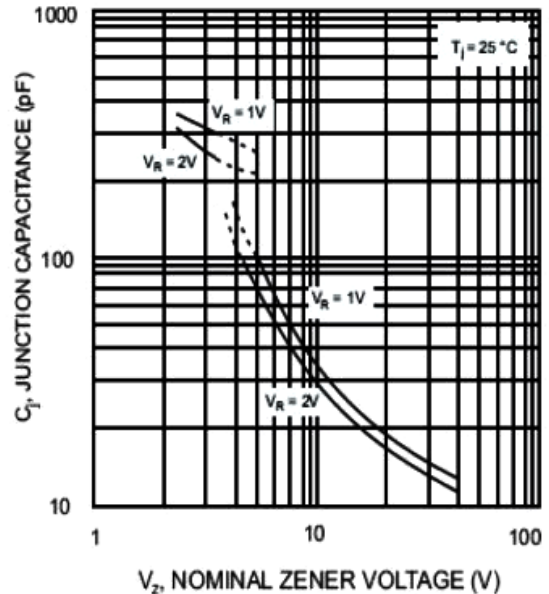
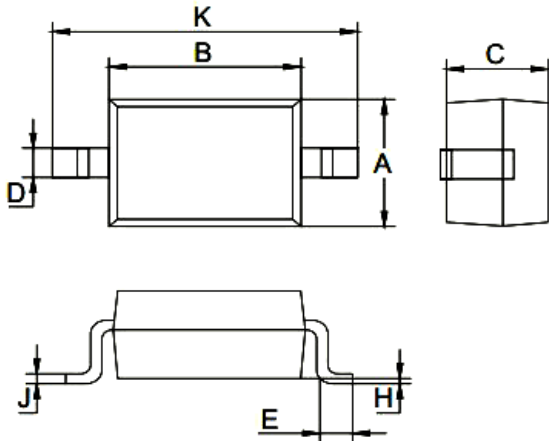


Fig. 4 Junction Capacitance vs Nominal Zener Voltage

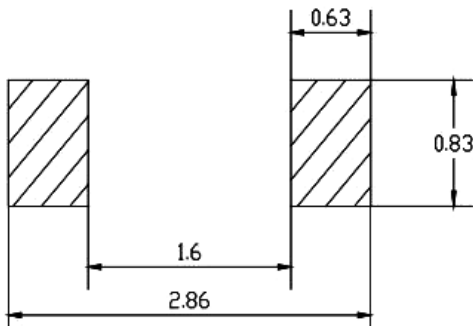
# Surface Mount Zener Diode

## 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		

## Soldering Footprint



Unit : mm

## Package Information

Device	Package	Shipping
BZT52C12S-7-F	SOD-323	3,000 / Tape & Reel

## Part Number Table

Description	Part Number
Surface mount zener diode	BZT52C12S-7-F

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