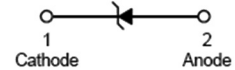


Surface Mount Zener Diode

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Features:

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



SOD-123

Applications:

- Zener diode
- Ultra-small surface mount package

Maximum Rating @ Ta = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Forward voltage @ I _F = 10mA	V _F	0.9	V
Power dissipation	P _D	500	mW
Thermal resistance, junction to ambient air	R _{θJA}	305	°C/W
Junction temperature	T _J	150	°C
Storage temperature range	T _{stg}	-65 to +150	°C

Note : Device mounted on ceramic PCB; 7.6mm × 9.4mm × 0.87mm with pad areas 25mm²

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 @ Ta = 25°C unless otherwise specified

Type Number	Marking Code	Zener Voltage Range				Maximum Zener Impedance			Maximum Reverse Current		Typical Temperature Coefficient@ I _{ZTC} mV/°C		Test Current I _{ZTC}
		V _Z @I _{ZT}			I _{ZT}	Z _{1%} @I _{ZT}	Z _{5%} @I _{ZK}	I _{ZK}	I _R	@V _R			
		Nom(V)	Min(V)	Max(V)	mA	Ω		mA	μA	V	Min	Max	mA
BZT52C3V9	W5	3.9	3.7	4.1	5	90	600	1	3	1	-3.5	0	5

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Surface Mount Zener Diode

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

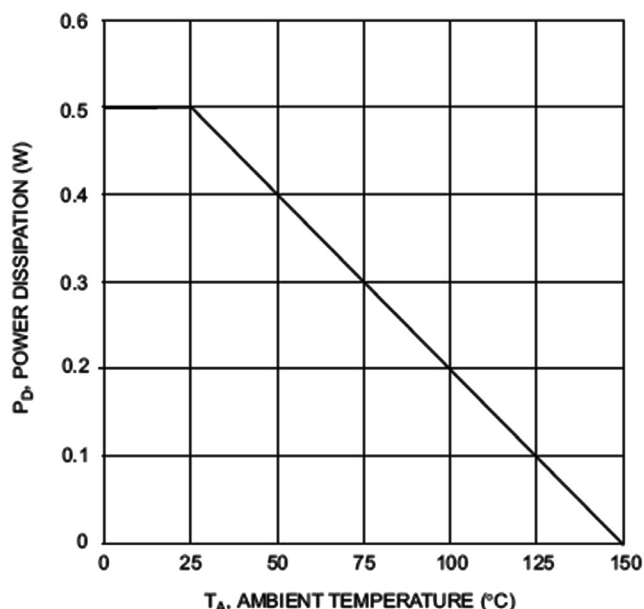


Fig. 1 Power Dissipation vs Ambient Temperature

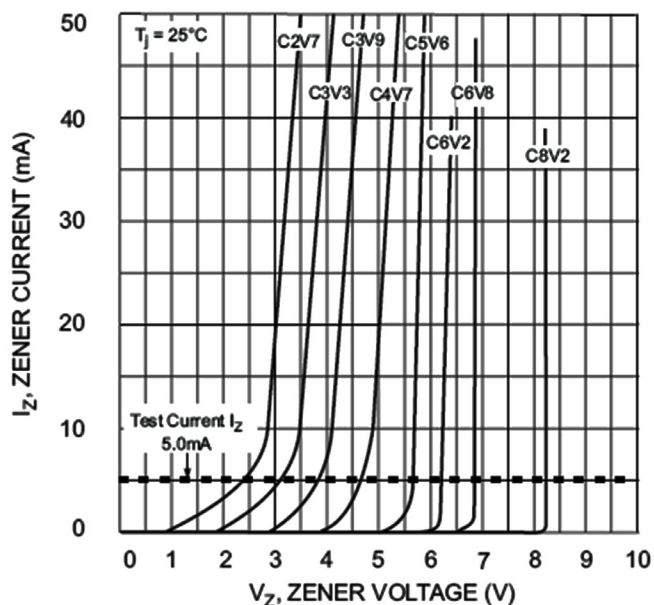


Fig. 2 Zener Breakdown Characteristics

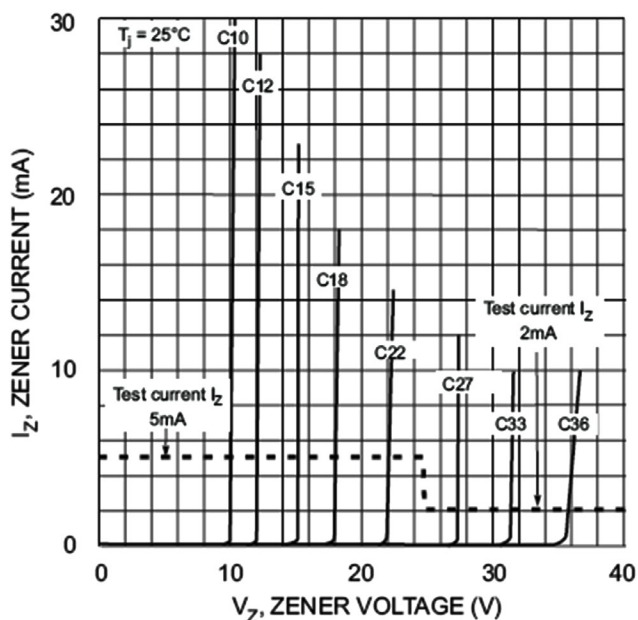


Fig. 3 Zener Breakdown Characteristics

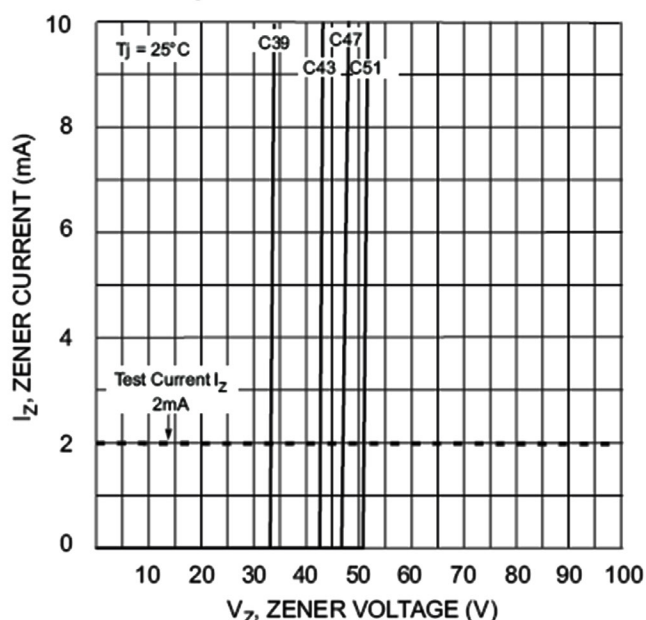


Fig. 4 Zener Breakdown Characteristics

Surface Mount Zener Diode

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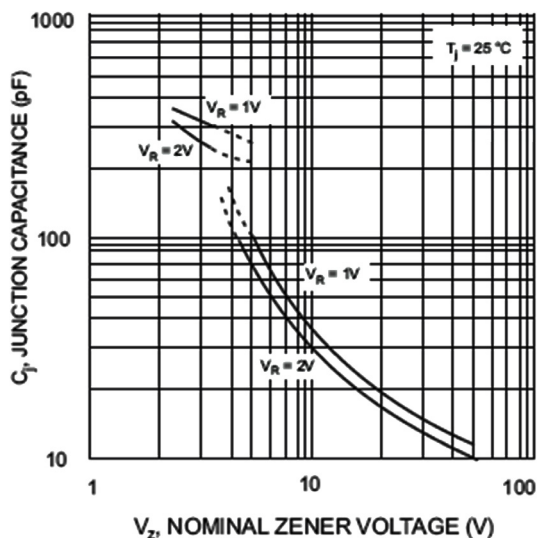
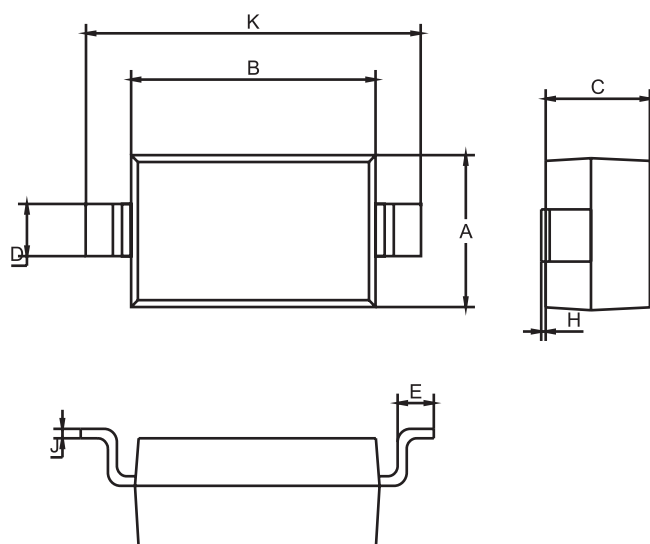


Fig. 5 Junction Capacitance vs Nominal Zener Voltage

Package Outline

Plastic surface mounted package

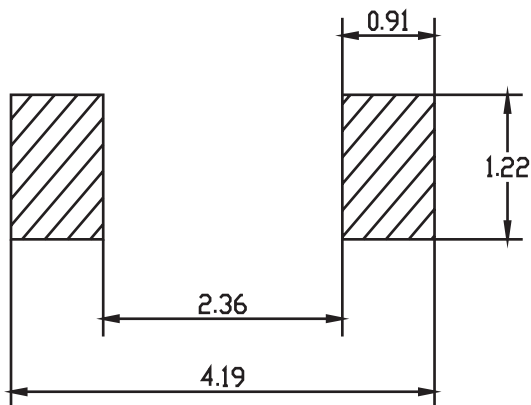


SOD-123		
Dim	Min	Max
A	1.4	1.8
B	2.55	2.85
C	1.15 Typical	
D	0.5	0.6
E	0.3	0.4
H	0.02	0.10
J	0.1 Typical	
K	3.55	3.85
All Dimensions in mm		

Surface Mount Zener Diode

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Soldering Footprint



Dimensions : Millimetres

Package Information

Device	Package	Shipping
BZT52C3V9-7-F	SOD-123	3,000/Tape & Reel

Part Number Table

Description	Part Number
Surface Mount Zener Diode	BZT52C3V9-7-F

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