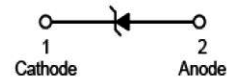


Surface Mount Zener Diode



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

Max. Rating @ T_A = 25°C unless otherwise specified

Parameter	Symbol	Limits	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
Operating junction temperature range	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 @ T_A = 25°C unless otherwise specified

Marking Code	Zener Voltage Range				Max. Zener Impedance			Max. Reverse Current		Typical Temperature Coefficient@ I _{ZTC} mV/°C		Test Current I _{ZTC}
	V _Z @ I _{ZT}			I _{ZT}	Z _{ZT} @I _{ZT}	Z _{ZK} @I _{ZK}	I _{ZK}	I _R	V _R			
	Nom(V)	Min(V)	Max(V)	mA	Ω		mA	μA	V	Min.	Max.	mA
WI	13	12.4	14.1	5	30	170	1	0.1	8	7	11	5

Surface Mount Zener Diode



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

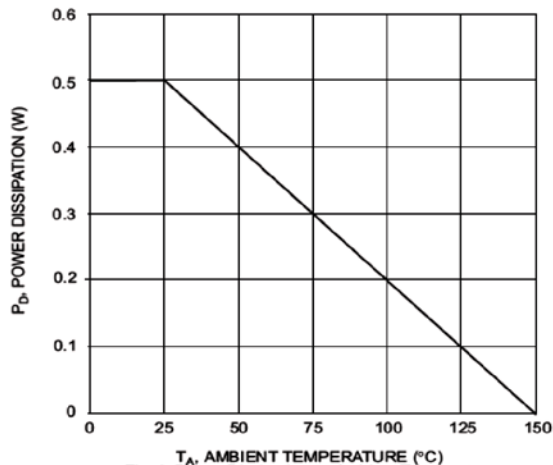


Fig. 1 Power Dissipation vs Ambient Temperature

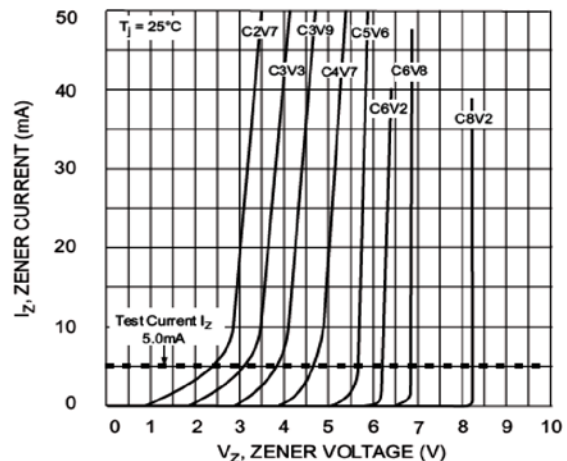


Fig. 2 Zener Breakdown Characteristics

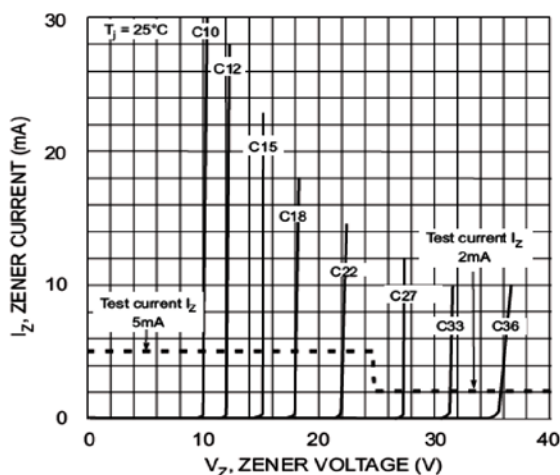


Fig. 3 Zener Breakdown Characteristics

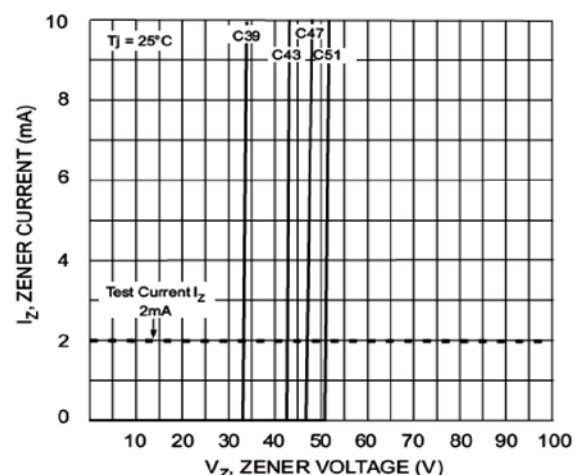


Fig. 4 Zener Breakdown Characteristics

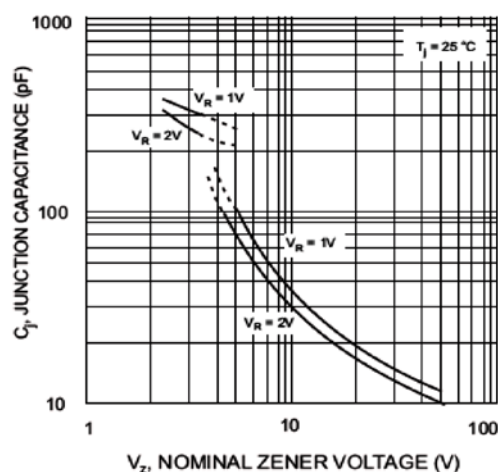
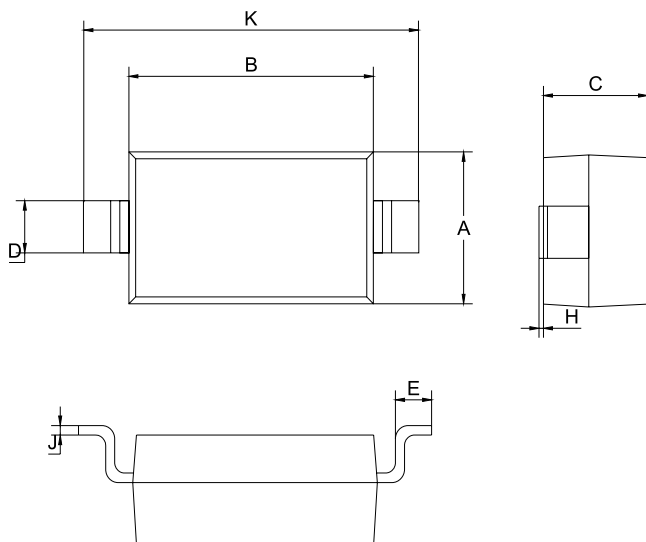


Fig. 5 Junction Capacitance vs Nominal Zener Voltage

Surface Mount Zener Diode

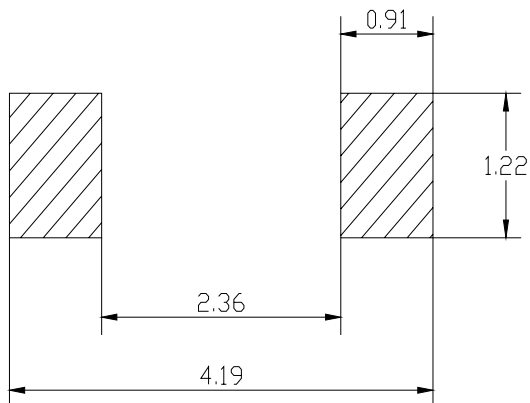


Plastic surface mounted package



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		

Soldering Footprint



Unit : mm

Package Information

Device	Package	Shipping
BZT52C13-7-F	SOD-123	3,000 / Tape & Reel

Part Number Table

Description	Part Number
Surface mount zener diode	BZT52C13-7-F

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