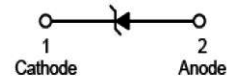


Surface Mount Zener Diode



Features:

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



SOD-323

Applications:

Zener diode
Ultra-small surface mount package

Max. Rating @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Limits	Unit
Forward voltage @ $I_F = 10\text{mA}$	V_F	0.9	V
Power dissipation	P_D	200	mW
Thermal resistance junction to ambient air	$R_{\theta JA}$	625	$^\circ\text{C/W}$
Operating junction temperature range	T_j	150	$^\circ\text{C}$
Storage temperature range	T_{STG}	-65 to +150	$^\circ\text{C}$

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

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

Marking Code	Zener Voltage Range				Max. Zener Impedance			Max. Reverse Current		Typical Temperature Coefficient @ I_{ZT} $\text{mV}/^\circ\text{C}$	
	$V_Z @ I_{ZT}$			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	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 = 300 μs
 $f = 1\text{kHz}$

Surface Mount Zener Diode



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

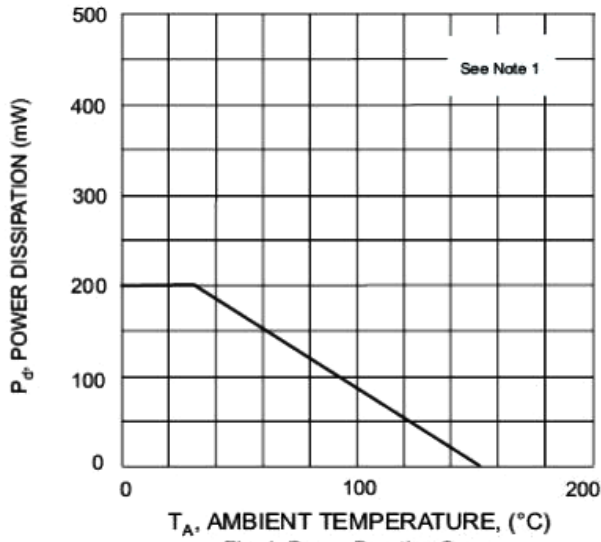


Fig. 1 Power Derating Curve

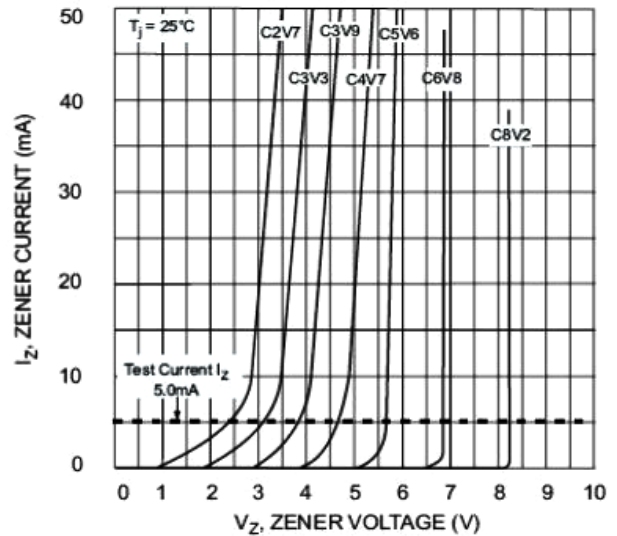


Fig. 2 Zener Breakdown Characteristics

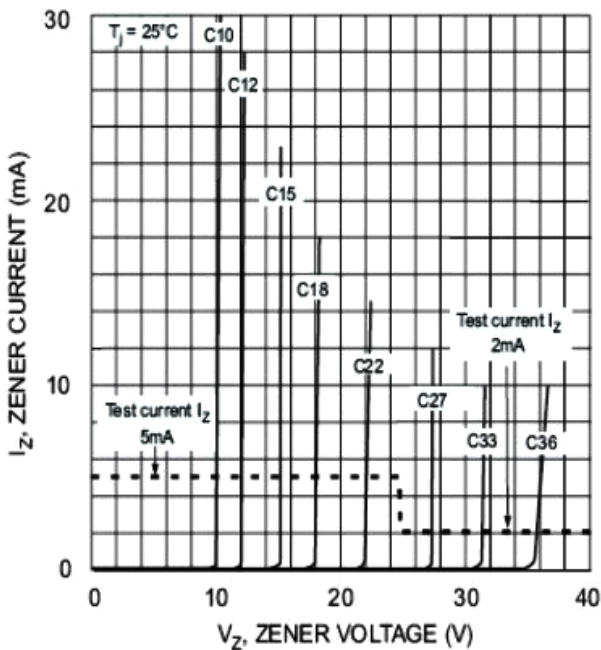


Fig. 3 Zener Breakdown Characteristics

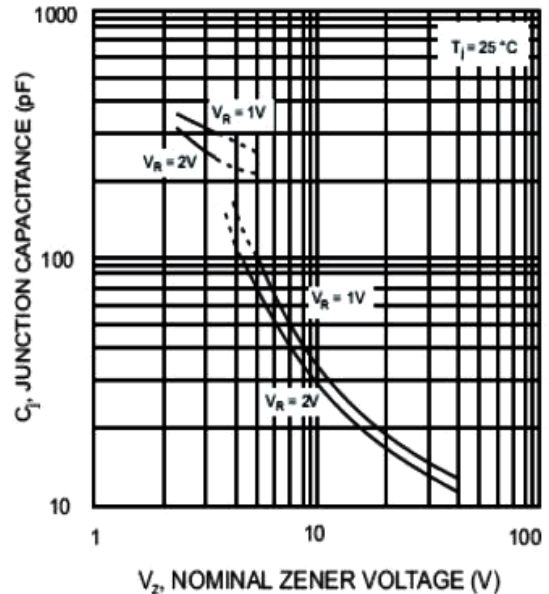


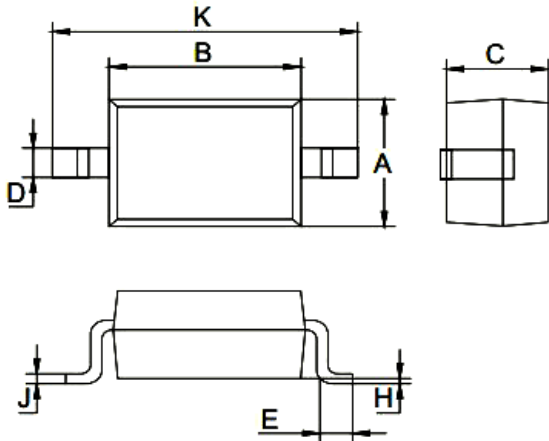
Fig. 4 Junction Capacitance vs Nominal Zener Voltage



Surface Mount Zener Diode

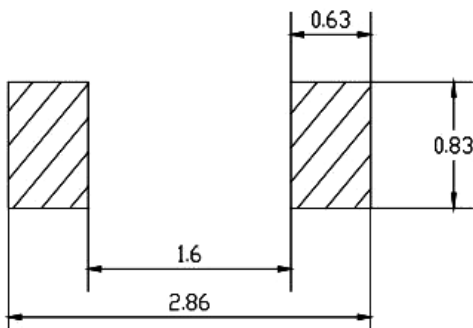


Plastic surface mounted package



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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