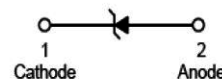


Surface Mount Zener Diode



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_{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		
	Nom(V)	Min(V)	Max(V)	mA	Ω		mA	μA	V	Min.	Max.
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

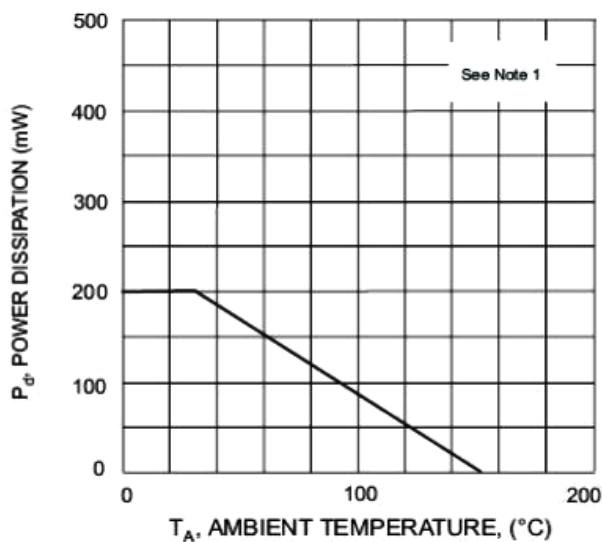


Fig. 1 Power Derating Curve

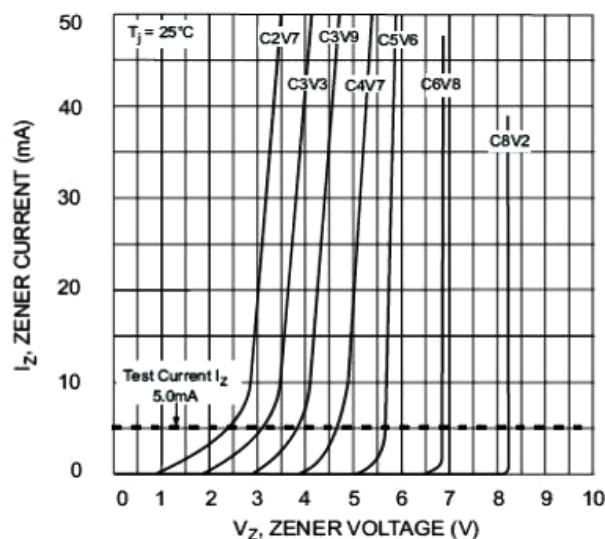


Fig. 2 Zener Breakdown Characteristics

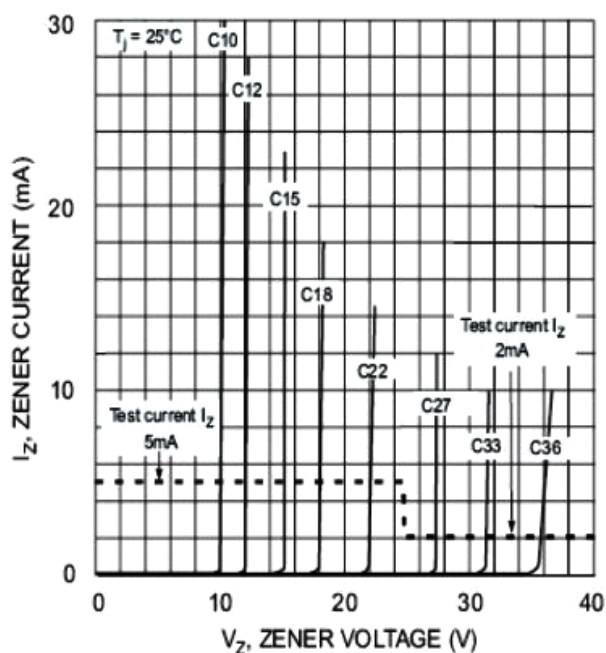


Fig. 3 Zener Breakdown Characteristics

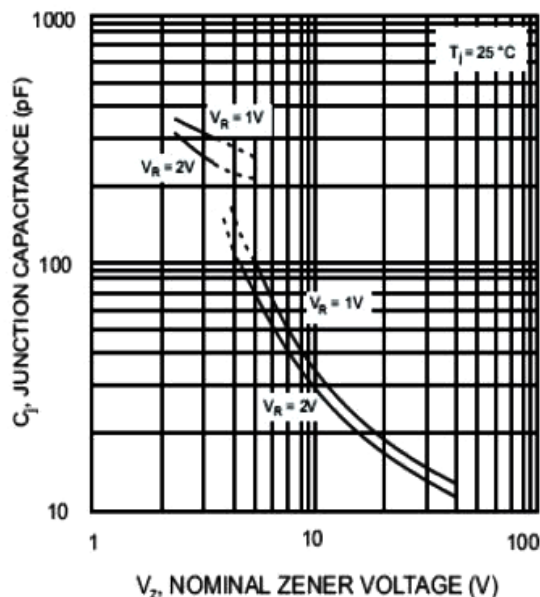
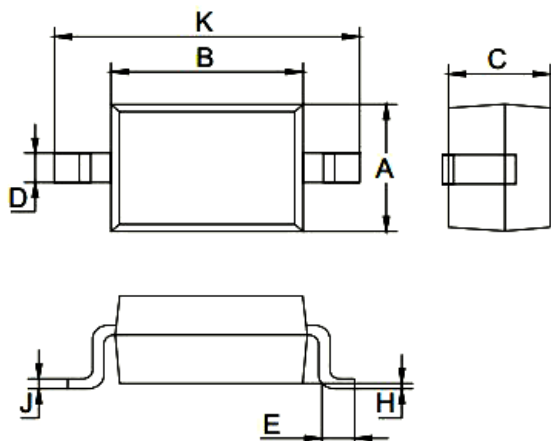


Fig. 4 Junction Capacitance vs Nominal Zener Voltage

Surface Mount Zener Diode

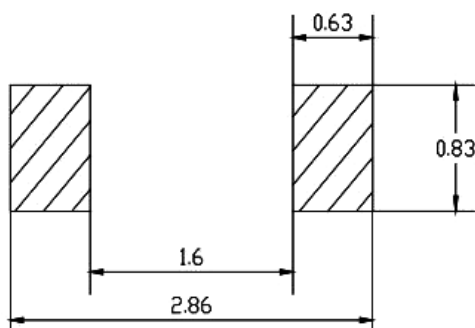


Plastic surface mounted package



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

Important Notice : This data sheet and its contents (the "Information") belong to the members of the Premier Farnell group of companies (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. Multicomp is the registered trademark of the Group. © Premier Farnell plc 2012.