BZT52C5V1S-7-F

Plastic-Encapsulate Zener Diodes

Features

Planar die construction.
200mW power dissipation on ceramic PBC.
General purpose, medium current.
Ideally suited for automated assembly processes.
Available in lead free version.



SOD-323
(SOD-323S)



Package Marking and Ordering Information

Product ID	Pack	Brand	Qty(PCS)
BZT52C5V1S-7-F	SOD-323 (SOD-323S)	HXY MOSFET	3000

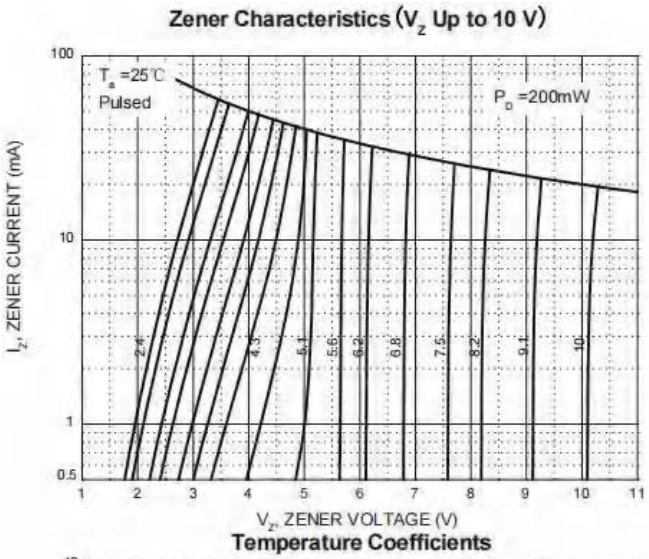
Absolute Maximum Ratings(Ta=25°C)

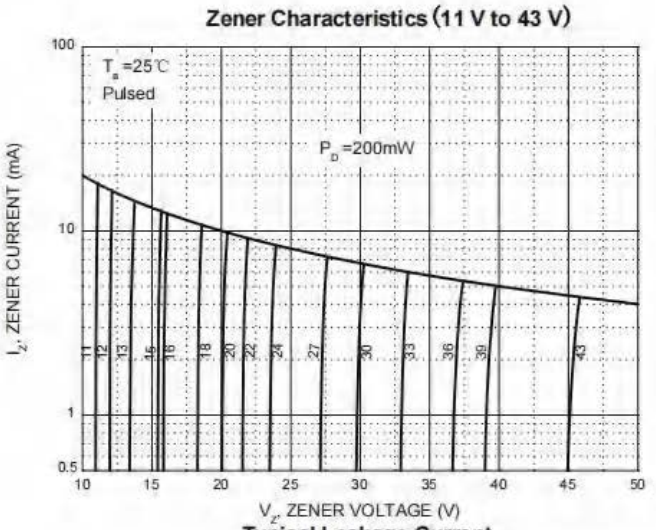
Symbol	Parameter	Value	Unit
V_F	Forward Voltage (Note 2) @ I_F=10mA	0.9	V
P_d	Power Dissipationn (Note 1)	200	mW
$R_{\Theta JA}$	Thermal Resistance From Junction To Ambient	625	°C/W
T_J	Operation Junction Temperature Range	-40~+125	°C
T_{STG}	Storage Temperature Range	-55~+150	°C

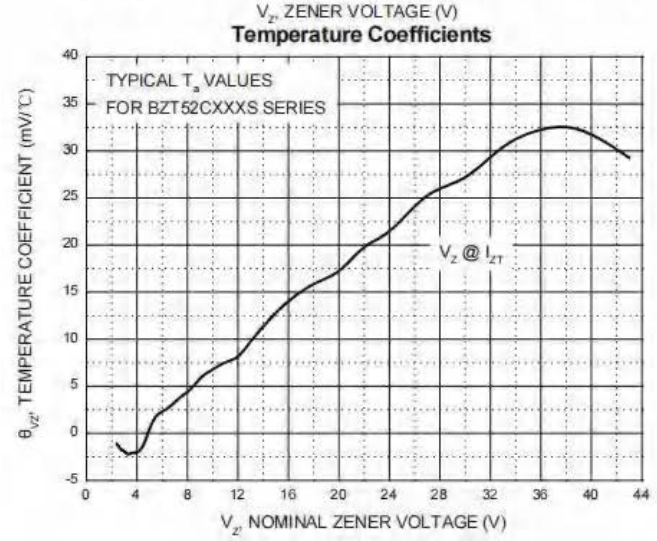
Electrical Characteristics (Ta =25°C unless otherwise specified)

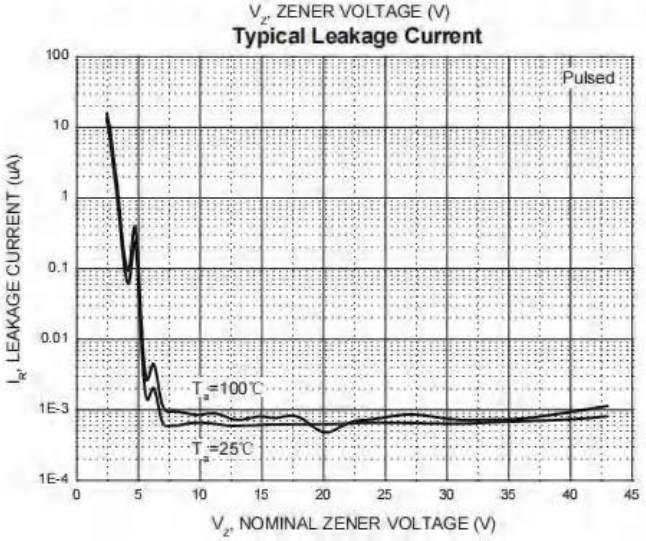
TYPE	Marking	Zener Voltage Range (Note 2)				Maximum Zener Impedance (Note 3)			Maximum Reverse Current (Note 2)		Typical Temperature Coefficient @I_{ZTC} mV/℃		Test Current I_{ZTC}
		V_Z @I_{ZT} (V)			I_{ZT} (mA)	V_Z @I_{ZT}	V_Z @I_{ZK}	I_{ZK} (mA)	I_R	V_R			
		Nom	Min	Max		Ω			μA	V	Min	Max	mA
BZT52C5V1S-7-F	W8	5.1	4.8	5.4	5	60	480	1.0	2	2.0	-2.7	1.2	5

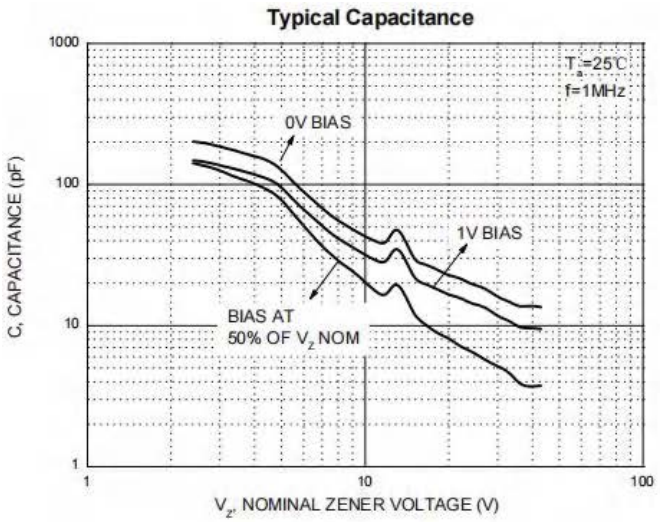
Typical Characteristics

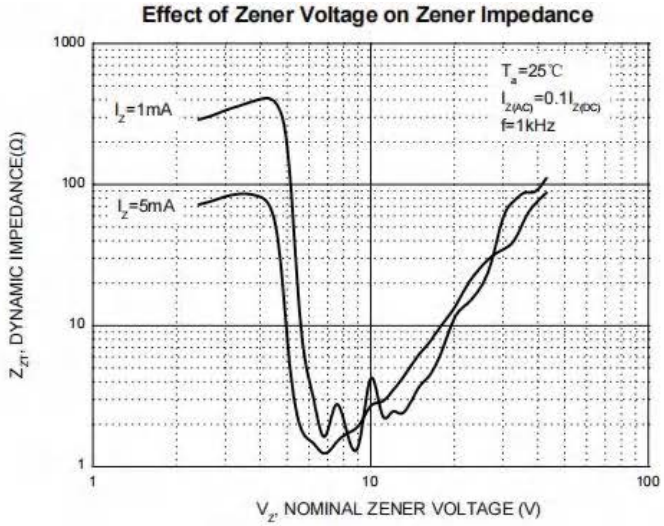


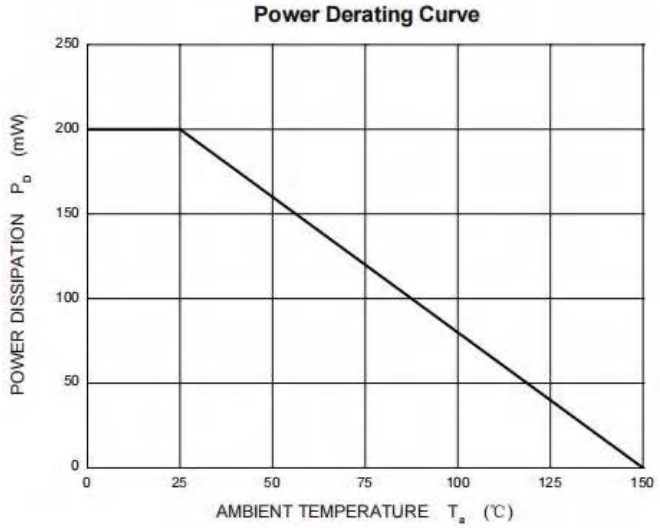






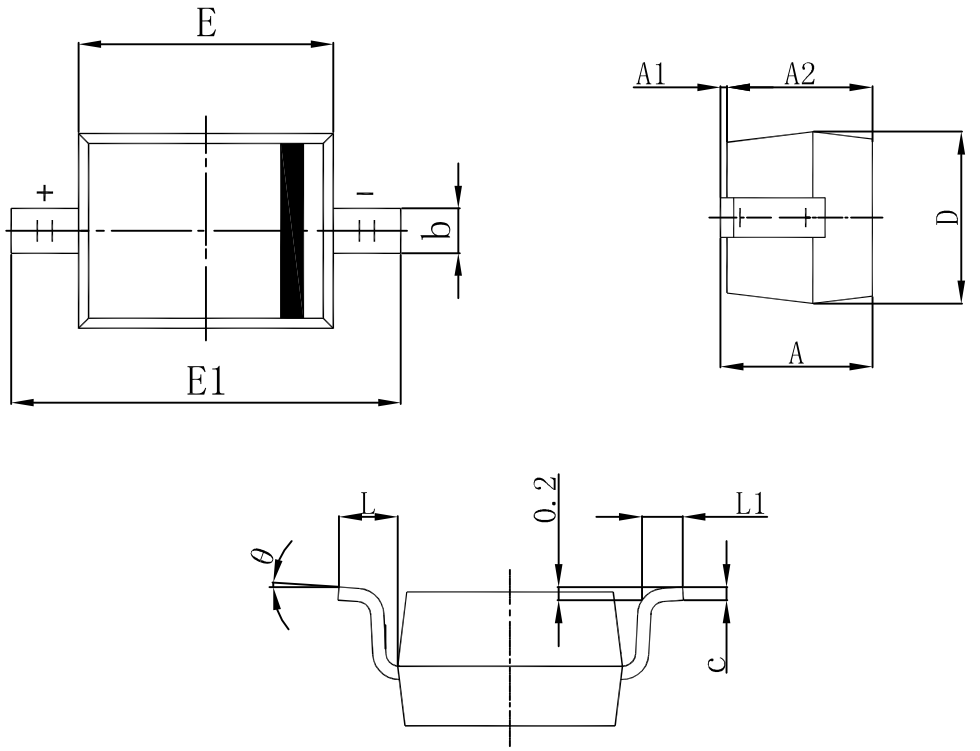

Typical Capacitance
C, CAPACITANCE (pF)
1000
100
10
1
1
10
100
T_a=25℃
f=1MHz
0V BIAS
1V BIAS
BIAS AT
50% OF V_Z NOM
V_Z, NOMINAL ZENER VOLTAGE (V)


Effect of Zener Voltage on Zener Impedance
Z_{ZT}, DYNAMIC IMPEDANCE(Ω)
1000
100
10
1
1
10
100
T_a=25℃
$I_{Z(AC)}$=0.1$I_{Z(DC)}$
f=1kHz
I_Z=1mA
I_Z=5mA
V_Z, NOMINAL ZENER VOLTAGE (V)


Power Derating Curve
POWER DISSIPATION P_D (mW)
250
200
150
100
50
0
0
25
50
75
100
125
150
AMBIENT TEMPERATURE T_a (℃)

Package Outline Dimensions

SOD-323(SOD-323S)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A		1.100		0.043
A1	0.000	0.100	0.000	0.004
A2	0.800	1.000	0.031	0.039
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	1.200	1.400	0.047	0.055
E	1.600	1.800	0.063	0.071
E1	2.500	2.750	0.098	0.108
L	0.475 REF		0.019 REF	
L1	0.250	0.400	0.010	0.016
θ	0°	8°	0°	8°

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HXY MOSFET:

CH440G C6D06065Q-TR TPD1E0B04DPYR 1SMB5934B IRLML2244TRPBF-HXY ISL28133FHZ-T7
MJD127G MUR1040FCT SG3525-HXY TLV74318PDBVR-HXY 1SMB5930BT3G 2N7002-HXY
C3M0040120D BD237STU DSC06065 HBAS40-05LT1G IDL10G65C5XUMA2 S4D15120H
SGM3798YG/TR TPS7A0533PDBZR-HXY AOD403-HXY C4D08120E-TR ISL28233FUZ-T7 S3D08065E
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