Zener Diode
BZT52C6V2S

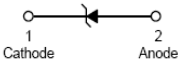
Features

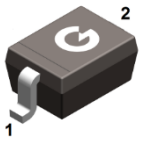
HF

- Tight voltage tolerance: ±5%
- Ultra low-profile package well suited for automated assembly
- Moisture sensitivity level 1

Mechanical Data

- Case: SOD-323
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208





SOD-323

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
BZT52C6V2S	SOD-323	3000 pcs / Tape & Reel	WA

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation	P_D	200	mW
Thermal Resistance Junction-to-Air *1	$R_{\theta JA}$	426	°C/W
Thermal Resistance Junction-to-Case *1	$R_{\theta JC}$	230	°C/W
Thermal Resistance Junction-to-Lead *1	$R_{\theta JL}$	297	°C/W
Operating Junction Temperature Range	T_J	-55 ~ +150	°C
Storage Temperature Range	T_{STG}	-65 ~ +150	°C

Note 1: The data tested by surface mounted on a 15mm * 15mm * 1mm FR4-epoxy P.C.B

Electrical Characteristics (@ T_A = 25°C unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Zener Voltage	V_Z	I_{ZT} = 5mA	5.89	6.20	6.51	V
Forward Voltage	V_F	I_F = 10mA	-	-	0.9	V
Maximum Reverse Current	I_R	V_R = 4V	-	-	3	μA
Maximum Zener Impedance	Z_{ZT}	I_{ZT} = 5mA	-	-	10	Ω
Maximum Zener Impedance	Z_{ZK}	I_{ZK} = 1mA	-	-	150	Ω
Temperature Coefficient	T_C	I_{ZT} = 5mA	0.4	2.29	3.7	mV/°C

TYPICAL CHARACTERISTICS (@ TA = 25°C unless otherwise specified)

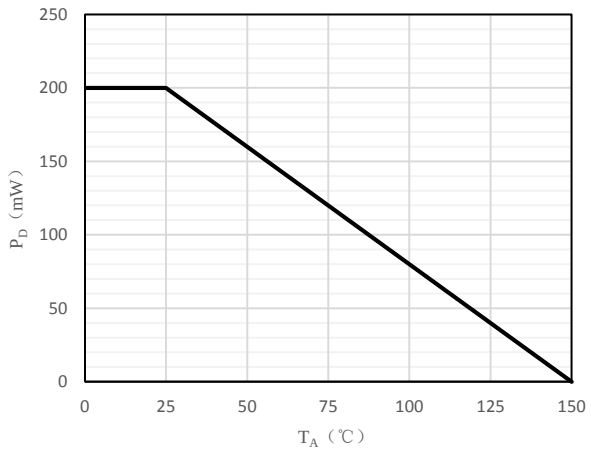


Fig 1 Steady State Power Derating

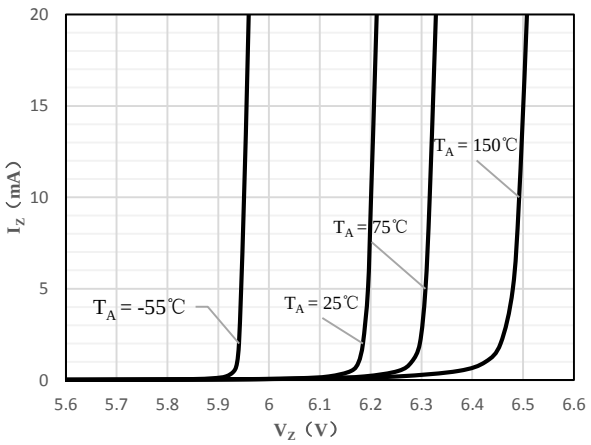


Fig 2 Typical Zener Breakdown Characteristics

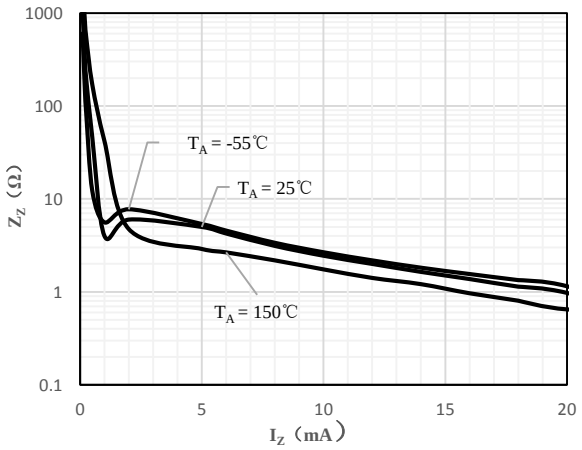


Fig 3 Zener Impedance vs. Zener Current

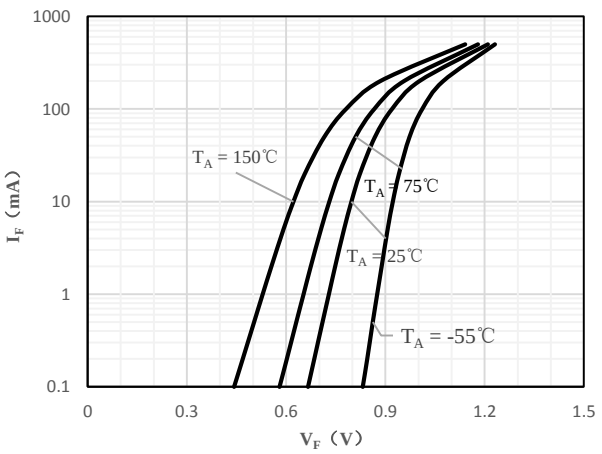


Fig 4 Typical Forward Characteristics

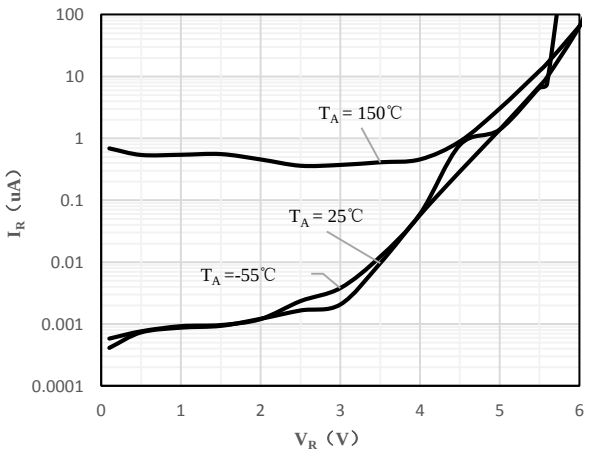
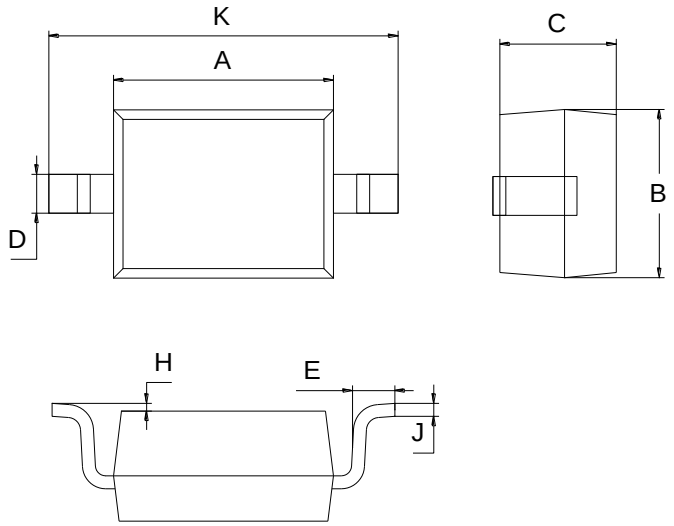


Fig 5 Typical Reverse Characteristics

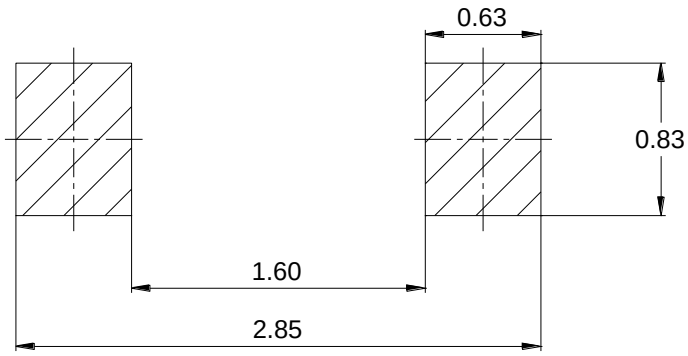
Package Outline Dimensions (Unit: mm)



SOD-323		
Dimension	**Min.**	**Max.**
A	1.60	1.80
B	1.20	1.40
C	0.80	0.90
D	0.25	0.35
E	0.22	0.42
H	0.02	0.10
J	0.05	0.15
K	2.55	2.75

Mounting Pad Layout (Unit: mm)

SOD-323



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