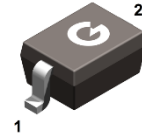
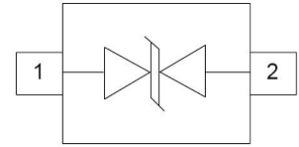


Features

- Unidirectional & Bidirectional configuration
- Ideally suited for automated assembly processes
- Moisture sensitivity level 1
- RoHS compliant with Halogen-free
- Qualified to AEC-Q101 Standards
- ESD / transient protection of high speed data lines
 - IEC 61000-4-2 (ESD): $\pm 30\text{kV}$ (air), $\pm 30\text{kV}$ (contact)

HF



SOD-323

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

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
TBZ18VC	SOD-323	3000 pcs / Tape & Reel	18VC

Thermal Characteristics

Parameter	Symbol	Value	Unit
IEC 61000-4-2; ESD (Air)	V_{ESD-A}	± 30	kV
IEC 61000-4-2; ESD (Contact)	V_{ESD-C}	± 30	kV
JESD22-A114-B; ESD (Human Body)	V_{ESD-HB}	± 8	kV
JESD22-A114-B; ESD (Machine)	V_{ESD-M}	± 0.8	kV
Power Dissipation	P_D	200	mW
Thermal Resistance Junction-to-Air	$R_{\theta JA}$	625	$^{\circ}\text{C/W}$
Operating Junction Temperature Range	T_J	$-55 \sim +150$	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	$-65 \sim +150$	$^{\circ}\text{C}$

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

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Zener Voltage	V_Z	$I_{ZT} = \pm 1\text{mA}$	16.2	18.6	19.8	V
Maximum Reverse Current	I_R	$V_R = \pm 18\text{V}$	-	-	0.1	μA
Total Capacitance	C_J	$V_R = 0\text{V}, f = 1.0\text{MHz}$	-	13	30	pF

TYPICAL CHARACTERISTICS (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

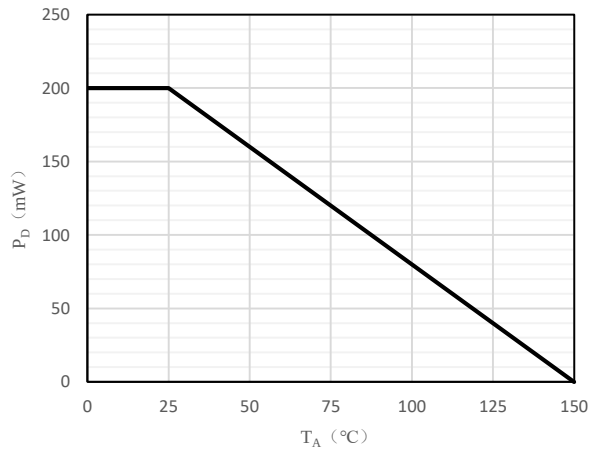


Fig 1 Steady State Power Derating

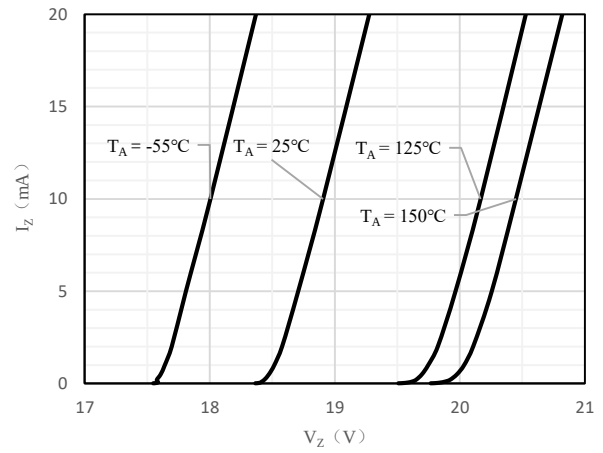


Fig 2 Typical Zener Breakdown Characteristics

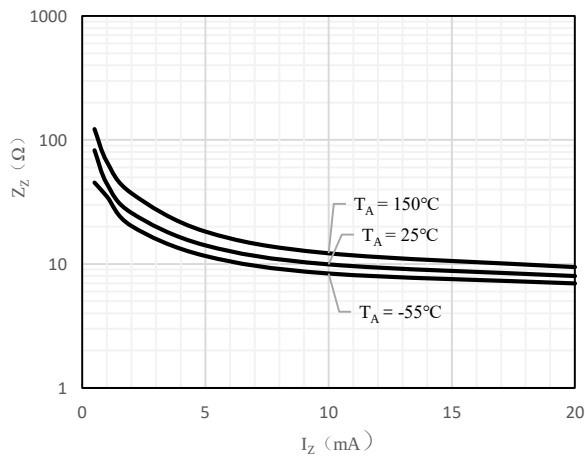


Fig 3 Zener Impedance vs. Zener Current

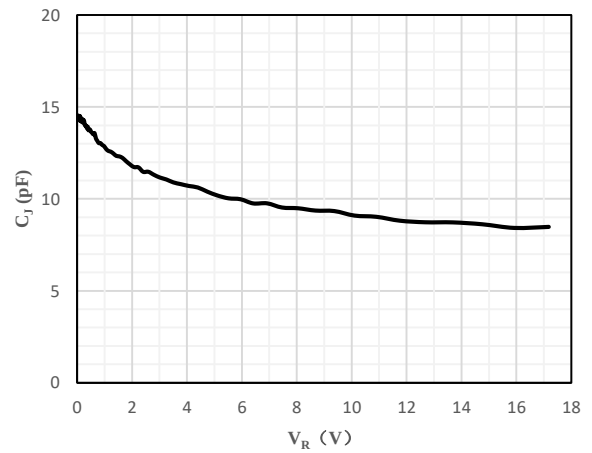


Fig 4 Capacitance vs. Reverse Voltage

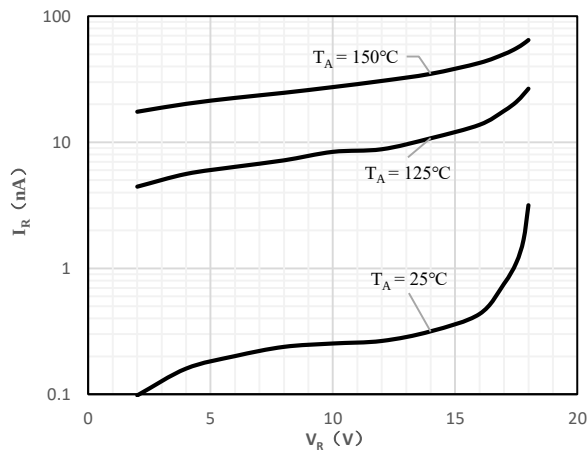


Fig 5 Typical Reverse Characteristic

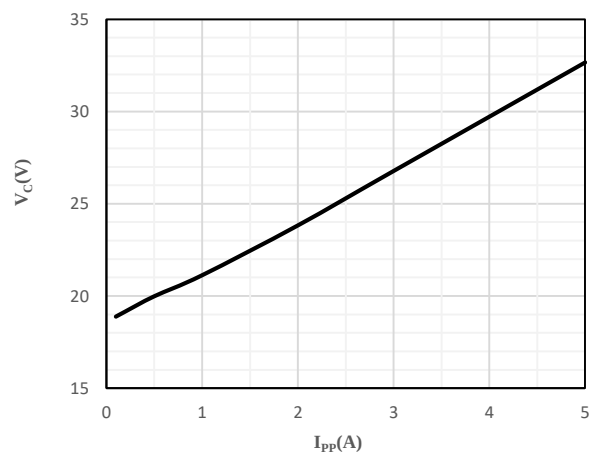
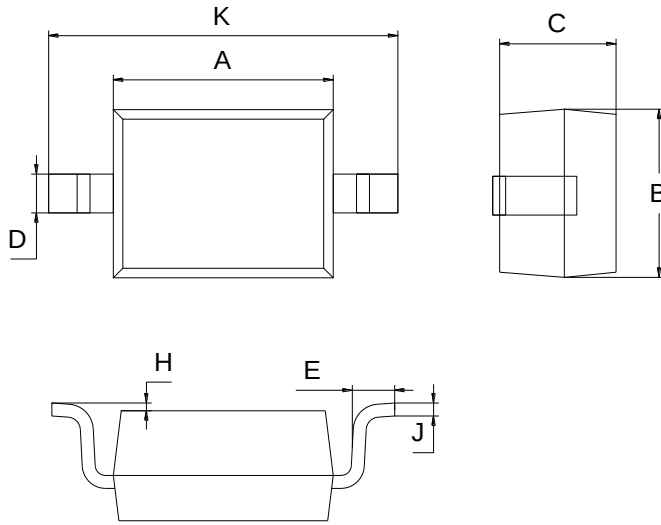


Fig 6 Clamping Voltage vs. Peak Pulse Current

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

