

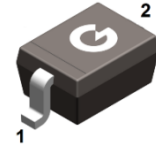
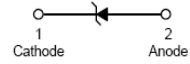
Features

- Ultra low-profile package well suited for automated assembly
- Moisture sensitivity level 1

HF

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
PDZ13B	SOD-323	3000 pcs / Tape & Reel	ZJ

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation ^{*1}	P _D	400	mW
Continuous Forward Current	I _F	200	mA
Thermal Resistance Junction-to-Air	R _{θJA}	312	°C/W
Thermal Resistance Junction-to-Case	R _{θJC}	166	°C/W
Thermal Resistance Junction-to-Lead	R _{θJL}	135	°C/W
Operating Junction Temperature Range	T _J	-55 ~ +150	°C
Storage Temperature Range	T _{STG}	-65 ~ +150	°C

Note 1: Device mounted on an FR4 Printed-Circuit Board (PCB), single-sided copper, tin-plated and standard footprint

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

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Zener Voltage	V _Z	I _{ZT} = 5mA	12.91	-	13.49	V
Forward Voltage	V _F	I _F = 10mA	-	-	0.9	V
		I _F = 100mA	-	-	1.1	V
Maximum Reverse Current	I _R	V _R = 10V	-	-	0.1	μA
Maximum Zener Impedance	Z _{ZT}	I _{ZT} = 5mA	-	-	10	Ω
Maximum Zener Impedance	Z _{ZK}	I _{ZK} = 0.5mA	-	-	80	Ω
Temperature Coefficient	T _C	I _{ZT} = 5mA	-	9.4	-	mV/°C
Diode Capacitance	C _J	V _R = 0V, f = 1 MHz	-	-	103	pF

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

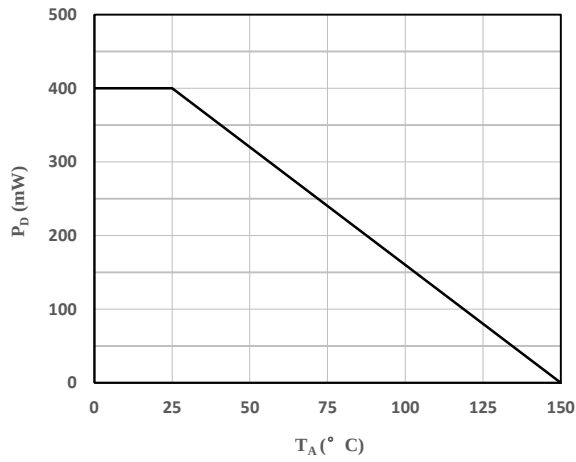


Fig 1 Steady State Power Derating

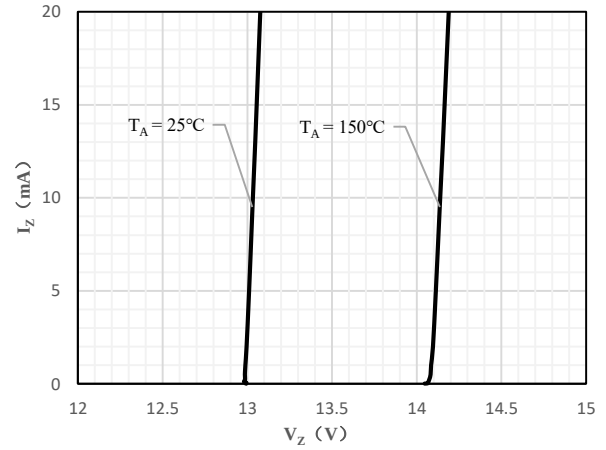


Fig 2 Typical Zener Breakdown Characteristics

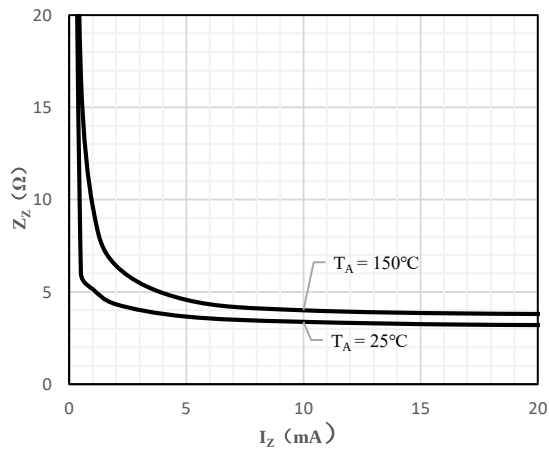


Fig 3 Zener Impedance vs. Zener Current

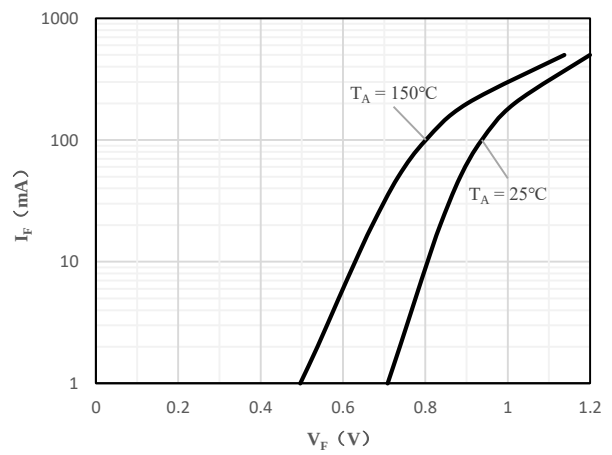


Fig 4 Typical Forward Characteristics

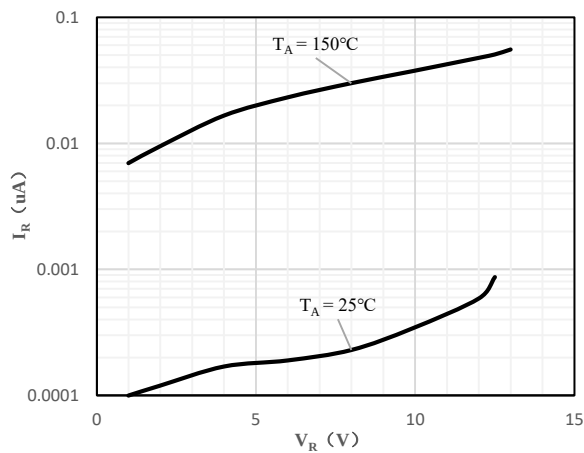
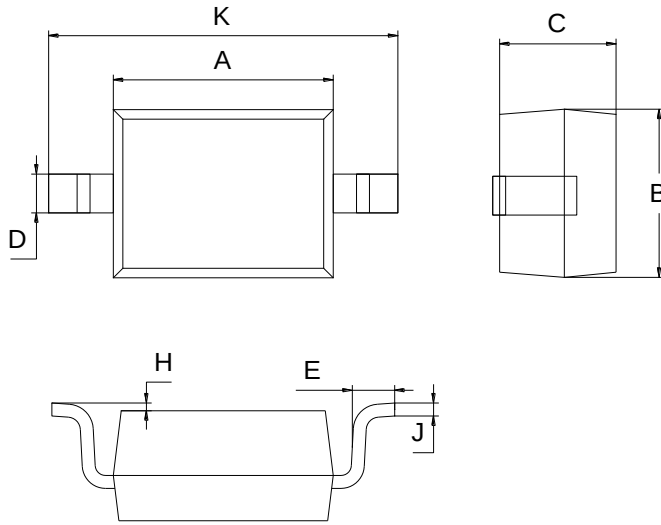


Fig 5 Typical Reverse Characteristics

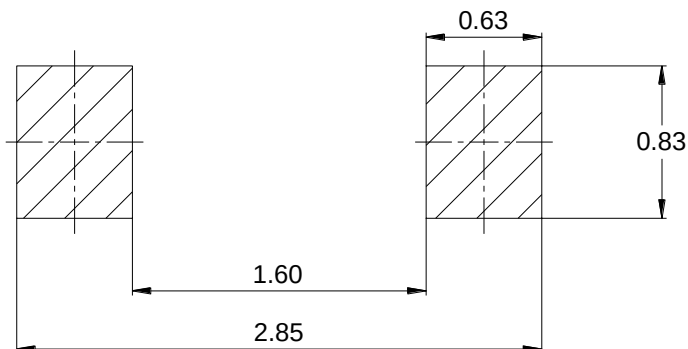
Package Outline Dimensions (Unit: mm)



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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