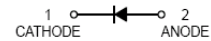




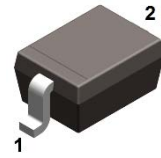
Features

- Fast switching speed
- High conductance



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
1N4148WS	SOD-323	3000 pcs / Tape & Reel	T4

Maximum Ratings (@ T_A = 25 °C unless otherwise specified)

Parameter	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V _{RM}	100	V
Peak Repetitive Peak Reverse Voltage	V _{RRM}	75	V
Working Peak Reverse Voltage	V _{RWM}	75	V
DC Blocking Voltage	V _R	75	V
RMS Reverse Voltage	V _{R(RMS)}	53	V
Average Rectified Output Current	I _F	200	mA
Peak Forward Surge Current, 1μs Single Half-sine-wave	I _{FSM}	2	A
Peak Forward Surge Current, 1s Single Half-sine-wave	I _{FSM}	1	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation	P _D	200	mW
Thermal Resistance Junction-to-Air ^{*1}	R _{θJA}	625	°C/W
Thermal Resistance Junction-to-Case ^{*1}	R _{θJC}	350	°C/W
Thermal Resistance Junction-to-Air ^{*2}	R _{θJA}	315	°C/W
Thermal Resistance Junction-to-Case ^{*2}	R _{θJC}	180	°C/W
Thermal Resistance Junction-to-Lead ^{*2}	R _{θJL}	250	°C/W
Operating Junction Temperature Range	T _J	-65 ~ +150	°C
Storage Temperature Range	T _{STG}	-65 ~ +150	°C



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

Parameter	Symbol	Test Condition		Typ.		Unit
Reverse Breakdown Voltage	V _{(BR)R}	I _R = 10μA	75	-	-	V
Forward Voltage	V _F	I _F = 1mA	-	-	0.715	V
		I _F = 10mA	-	-	0.855	V
		I _F = 50mA	-	-	1.000	V
		I _F = 150mA	-	-	1.250	V
Maximum Peak Reverse Current	I _R	V _R = 20V	-	-	25	nA
		V _R = 75V	-	-	1	μA
Total Capacitance	C _J	V _R = 0V, f = 1.0MHz	-	-	2	pF
Reverse Recovery Time	t _{rr}	I _F = I _R = 10mA I _{rr} = 0.1×I _R , R _L = 100Ω	-	-	4	ns

Notes:

1. The data tested by surface mounted on a minimum recommended FR-4 board
2. The data tested by surface mounted on a 1 inch² FR-4 board with 2OZ copper



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

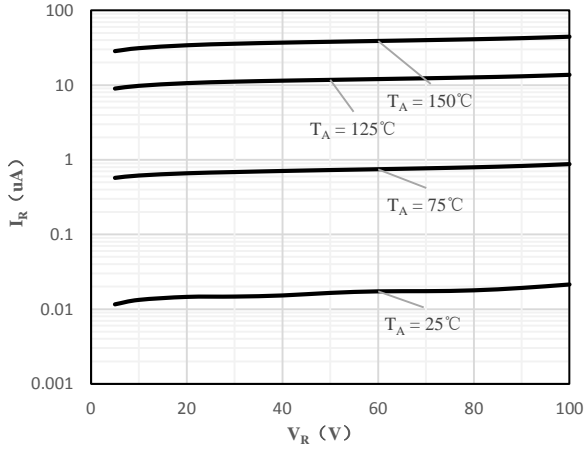


Fig 1 Typical Reverse Characteristic

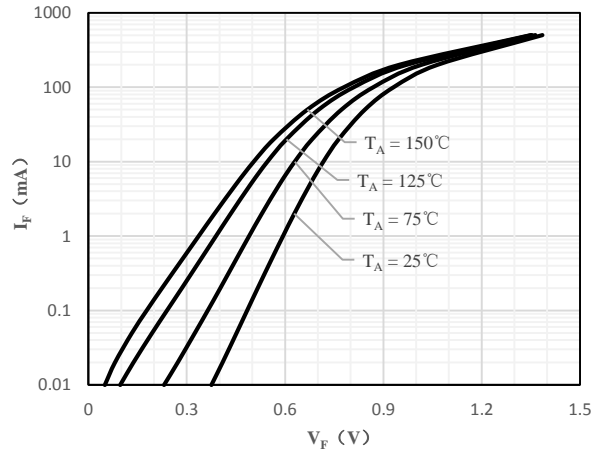


Fig 2 Typical Forward Characteristics

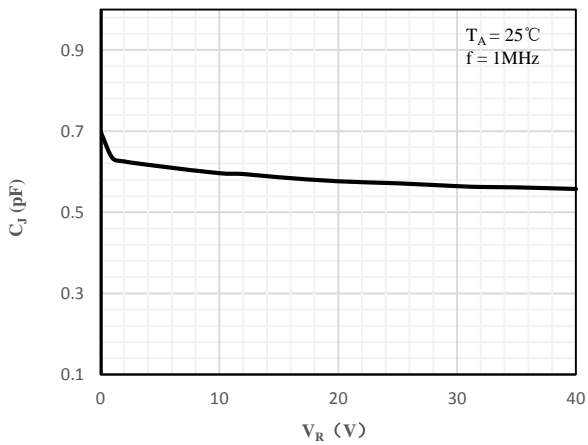


Fig 3 Capacitance vs. Reverse Voltage

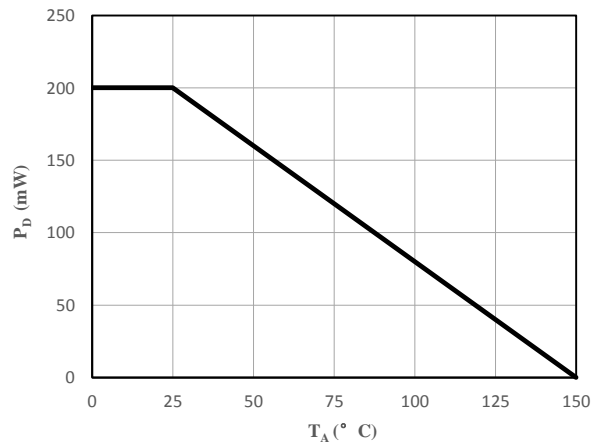
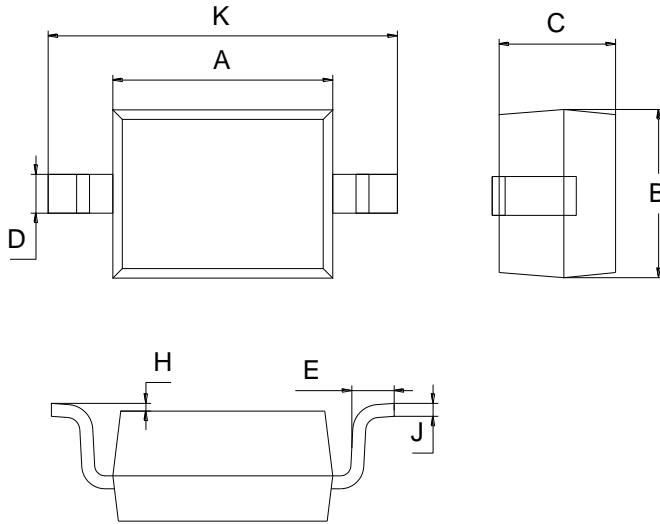


Fig 4 Power Derating Curve



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

