

# GSD1N4148WX

## Switching Diodes

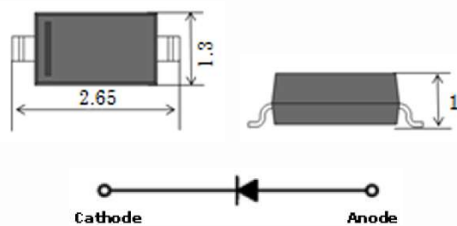
### Product Description

Fast Switching Diode 150mA / 100V.

### Features

- For General Purpose Switching Application
- Case: SOD-323
- RoHS Compliant
- Band Indicates Cathode

### Equivalent Circuit Diagram



### Ordering and Marking Information

Part Number	Package	Quantity	Part Marking
GSD1N4148WXF	SOD-323	3,000 PCS	T4

## Absolute Maximum Ratings

(T<sub>A</sub>=25°C Unless Otherwise specified)

Symbol	Parameter	Value	Units
V <sub>RM</sub>	Non-Repetitive Peak Reverse Voltage	100	V
V <sub>RRM</sub>	Repetitive Peak Reverse Voltage	75	V
V <sub>R(RMS)</sub>	RMS Reverse Voltage	75	V
I <sub>FM</sub>	Forward Continuous Current	300	mA
I <sub>O</sub>	Average Rectified Output Current	150	mA
I <sub>FSM</sub>	Non-Repetitive Peak Forward Surge Current (Pulse width=1us)	2	A
P <sub>D</sub>	Power Dissipation	200	mW
T <sub>J</sub>	Max Junction Temperature	+150	°C
R <sub>θJA</sub>	Thermal Resistance from Junction to Ambient *	625	°C/W
T <sub>STG</sub>	Storage Temperature Range °C	-55 to + 150	°C

These ratings are limiting Values above which the serviceability of the diode may be impaired.

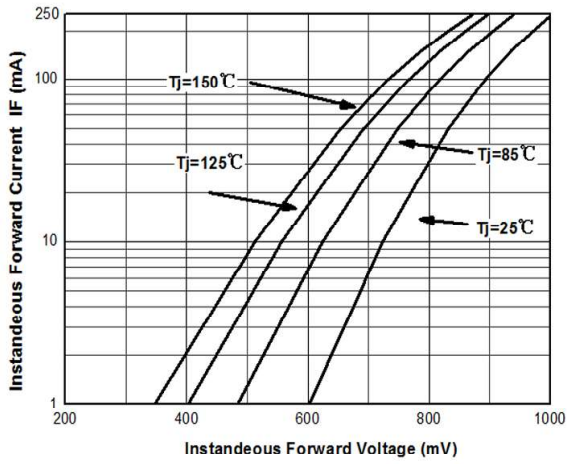
\*: Device mounted on 1"x1" FR4 PCB

## Electrical Characteristics

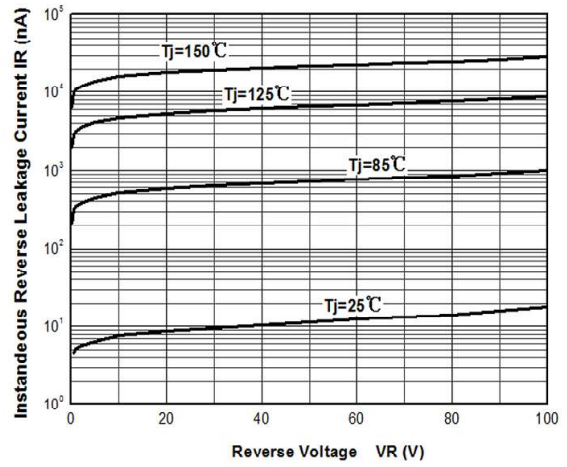
(T<sub>A</sub>=25°C Unless Otherwise specified)

Symbol	Parameter	Test Condition	Min	Max	Units
B <sub>V</sub>	Breakdown Voltage	I <sub>R</sub> =100μA I <sub>R</sub> =5μA	100 75	-	V
I <sub>R</sub>	Reverse Leakage Current	V <sub>R</sub> =20V V <sub>R</sub> =75V	- -	25 5	nA μA
V <sub>F</sub>	Forward Voltage	I <sub>F</sub> =5mA I <sub>F</sub> =10mA I <sub>F</sub> =100mA	0.62 - -	0.72 1.0 1.0	V
C <sub>T</sub>	Capacitance	V <sub>R</sub> =0V, f = 1MHz	-	4	pF
t <sub>rr</sub>	Reverse Recovery Time	I <sub>F</sub> =10mA, V <sub>R</sub> =6V R <sub>L</sub> =100Ω, I <sub>RR</sub> =1mA	-	4	ns

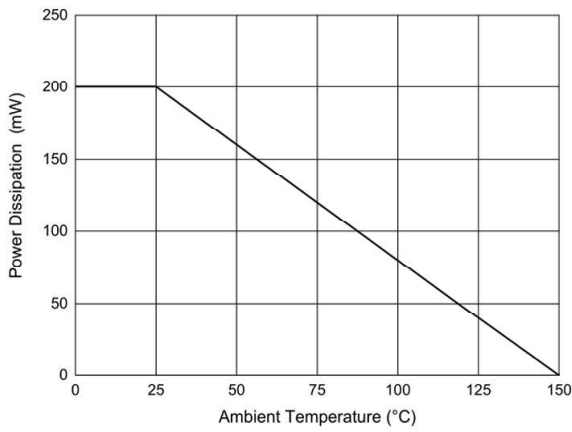
## Typical Characteristics



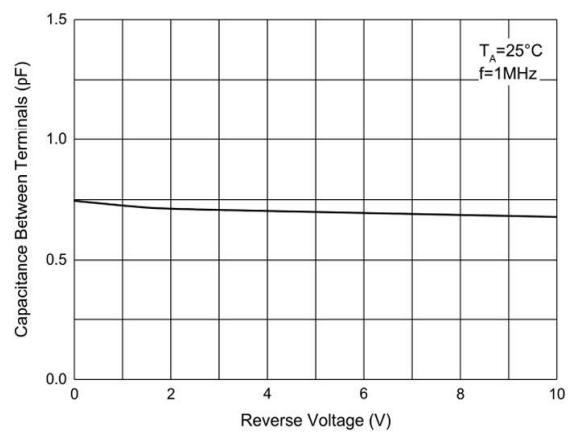
Typical Instantaneous Forward Characteristics



Typical Reverse Leakage Characteristics



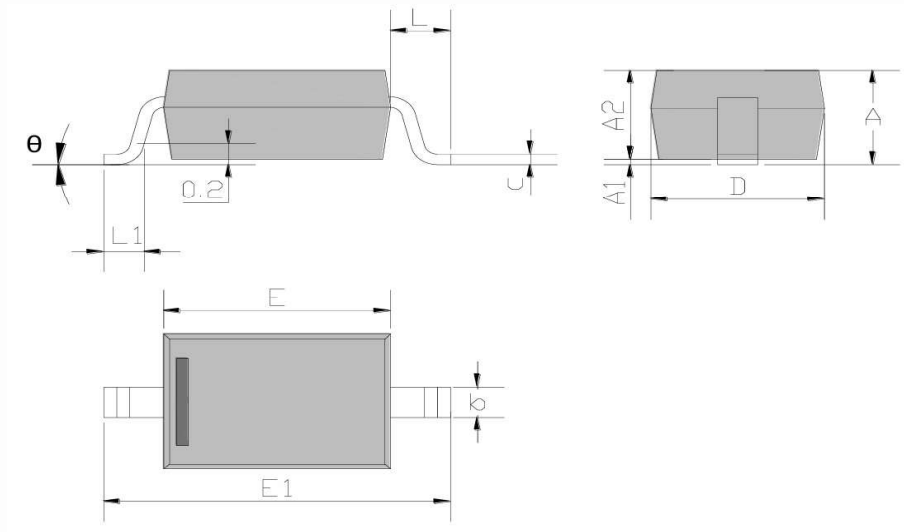
Power Derating Curve



Capacitance Characteristics

## Package Dimension

### SOD-323







### Dimensions

Symbol	Millimeters		Inches	
	Min	Max	Min	Max
<b>A</b>	-	1.00	-	0.039
<b>A1</b>	0.00	0.10	0.000	0.004
<b>A2</b>	0.80	0.90	0.031	0.035
<b>b</b>	0.25	0.35	0.009	0.014
<b>c</b>	0.08	0.15	0.003	0.006
<b>D</b>	1.20	1.40	0.047	0.055
<b>E</b>	1.60	1.80	0.063	0.071
<b>E1</b>	2.50	2.70	0.098	0.106
<b>L</b>	0.475 REF.		0.018 REF.	
<b>L1</b>	0.25	0.40	0.009	0.016
<b>θ</b>	0°	8°	0°	8°



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