

# GSD1N4148W / 1N4448W

## Fast Switching Diodes

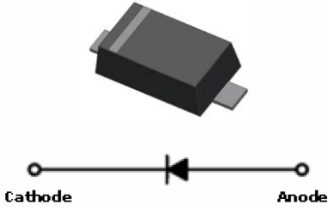
### Product Description

Fast Switching Diode 150mA / 100V.

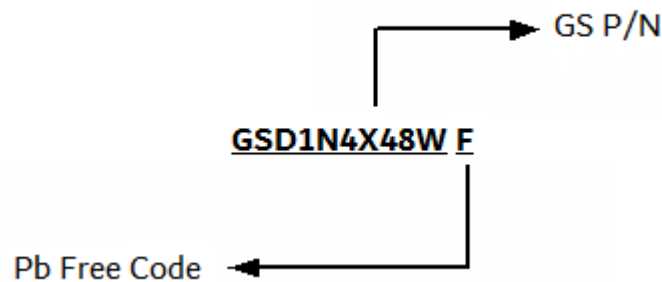
### Features

- Fast Switching Device ( $T_{RR} < 4.0nS$ )
- General Purpose Diodes
- Flat Lead SOD-123 Small Outline Plastic Package
- Surface Device Type Mounting
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish
- Band Indicates Cathode

### Marking Information

Part Number	Package	Part Marking	Equivalent Circuit Diagram
GSD1N4148WF	SOD-123	D1	
GSD1N4448WF	SOD-123	D2	

### Ordering Information



Part Number	Package	Quantity
GSD1N4148WF	SOD-123	3,000 PCS
GSD1N4448WF	SOD-123	3,000 PCS

## Absolute Maximum Ratings

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

Symbol	Parameter	Value	Units
V <sub>RRM</sub>	Repetitive Peak Reverse Voltage	75	V
V <sub>RSM</sub>	Non-Repetitive Peak Reverse Voltage	100	V
I <sub>O</sub>	Continuous Forward Current	150	mA
I <sub>FRM</sub>	Repetitive Peak Forward Current	300	mA
I <sub>FSM</sub>	Peak Forward Surge Current (Pulse Width=1us)	2	A
P <sub>D</sub>	Power Dissipation	400	mW
T <sub>J</sub>	Operating Junction Temperature	+150	°C
T <sub>STG</sub>	Storage Temperature Range °C	-65 to + 150	°C

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

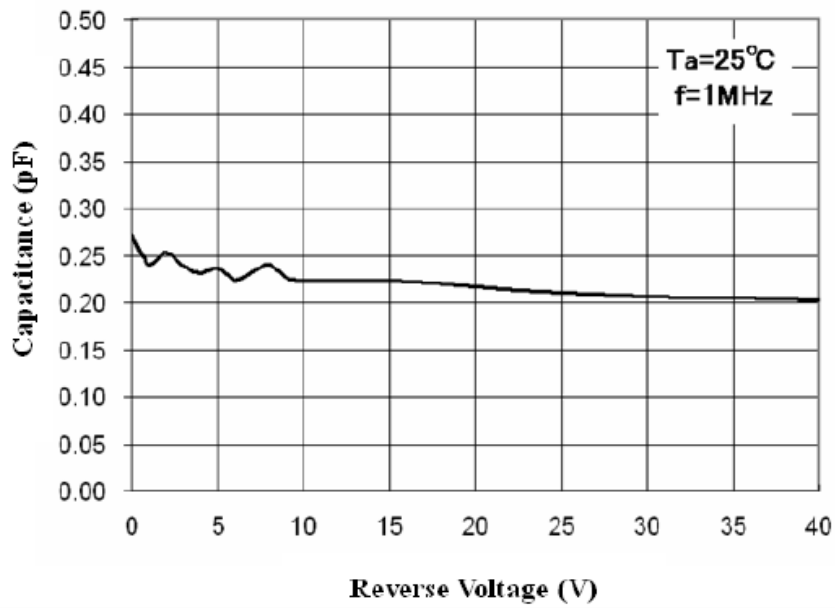
## Electrical Characteristics

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

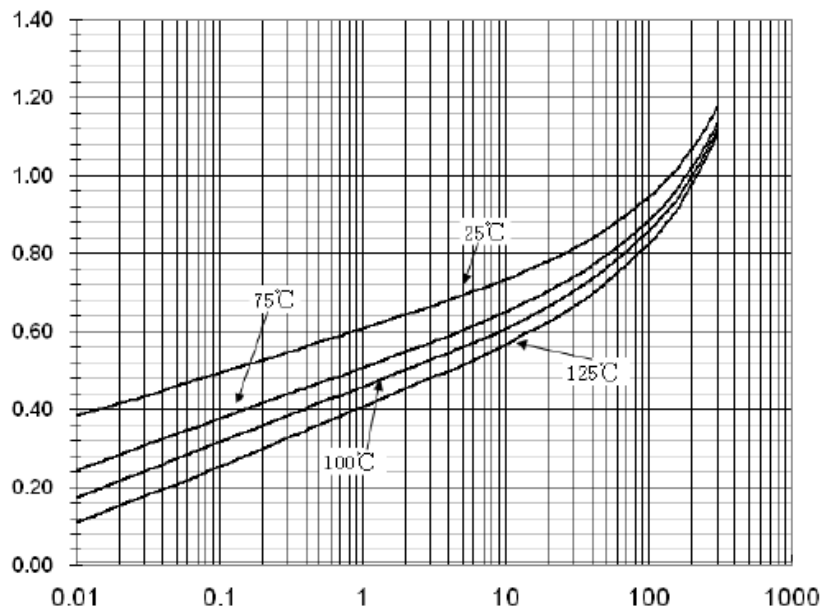
Symbol	Parameter	Test Condition	Min	Max	Units
V <sub>F</sub>	Forward Voltage GSD1N4448W GSD1N4148W GSD1N4448W	I <sub>F</sub> =5mA I <sub>F</sub> =10mA I <sub>F</sub> =100mA	0.62 - -	0.72 1.0 1.0	V
I <sub>R</sub>	Reverse Leakage Current	V <sub>R</sub> =20V V <sub>R</sub> =75V	- -	25 5	nA uA
B <sub>V</sub>	Breakdown Voltage	I <sub>R</sub> =100μA I <sub>R</sub> =5μA	100 75	- -	V
C	Capacitance	V <sub>R</sub> =0V, f=1MHz	-	4	pF
T <sub>RR</sub>	Reverse Recovery Time	I <sub>F</sub> =10mA, I <sub>R</sub> =60mA R <sub>L</sub> =100Ω, I <sub>RR</sub> =1mA	-	4	nS

## Typical Characteristics

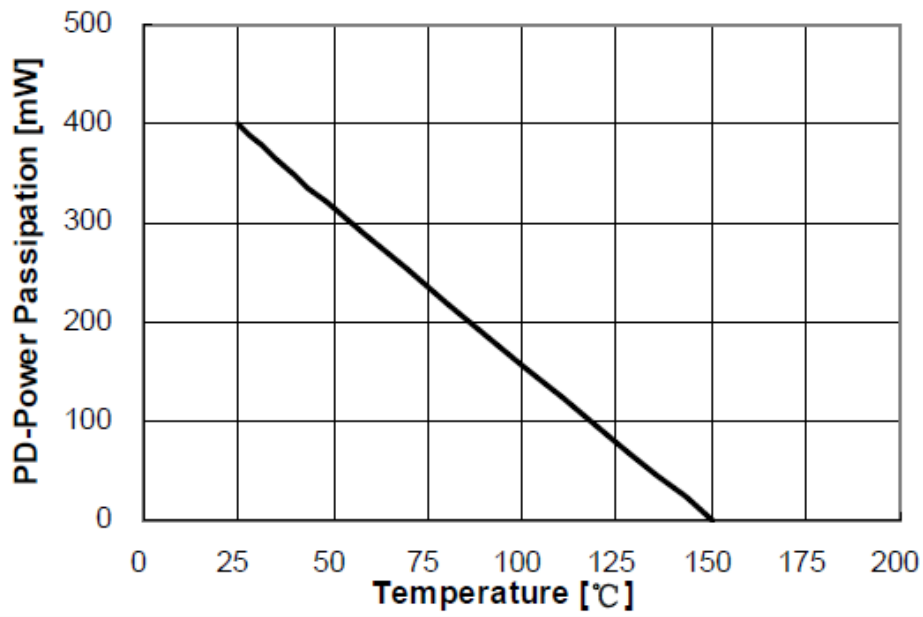
### Total Capacitance



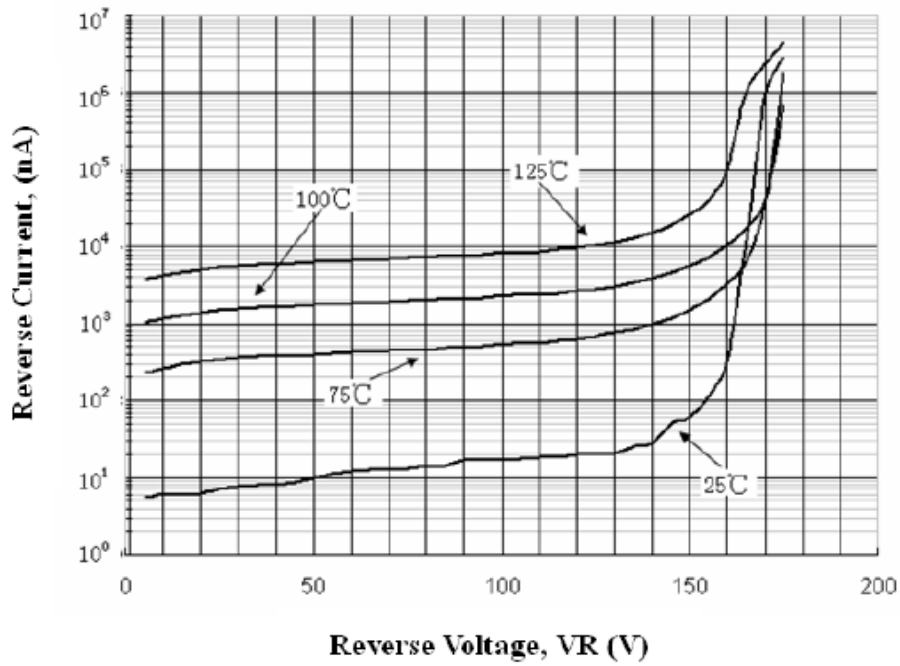
### Forward Voltage vs Ambient Temperature



### Power Derating Curve

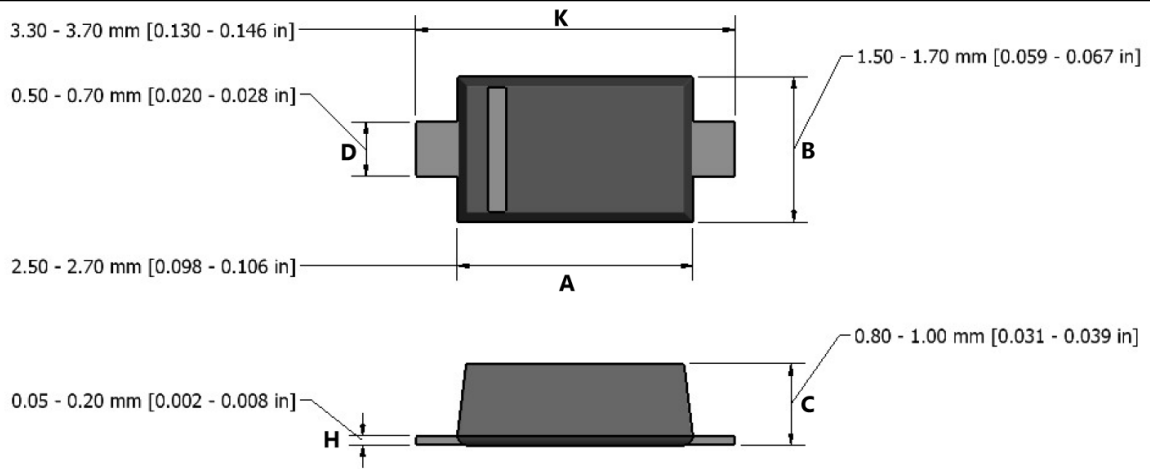


### Reverse Current vs Reverse Voltage



## Package Dimension

### SOD-123







**Note:** Dimensions are exclusive of Burrs, Mold Flash & Tie Bar extrusions.

Dimensions				
Symbol	Millimeters		Inches	
	Min	Max	Min	Max
<b>A</b>	2.5	2.7	0.098	0.106
<b>B</b>	1.5	1.7	0.059	0.067
<b>C</b>	0.8	1	0.031	0.039
<b>D</b>	0.5	0.7	0.02	0.028
<b>H</b>	0.05	0.2	0.002	0.008
<b>K</b>	3.3	3.7	0.13	0.146



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