

GSD1N4148W / 1N4448W

Fast Switching Diodes

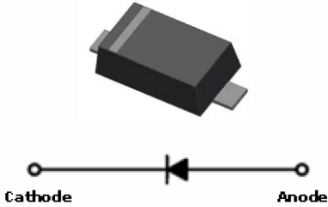
Product Description

Fast Switching Diode 150mA / 100V.

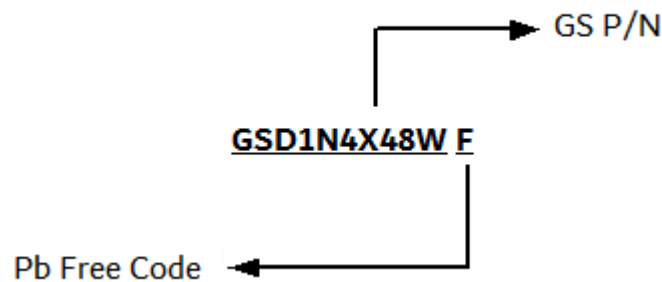
Features

- Fast Switching Device ($T_{RR} < 4.0\text{nS}$)
- 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_A=25°C Unless Otherwise specified)

Symbol	Parameter	Value	Units
V _{RRM}	Repetitive Peak Reverse Voltage	75	V
V _{RSM}	Non-Repetitive Peak Reverse Voltage	100	V
I _O	Continuous Forward Current	150	mA
I _{FRM}	Repetitive Peak Forward Current	300	mA
I _{FSM}	Peak Forward Surge Current (Pulse Width=1us)	2	A
P _D	Power Dissipation	400	mW
T _J	Operating Junction Temperature	+150	°C
T _{STG}	Storage Temperature Range °C	-65 to + 150	°C

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

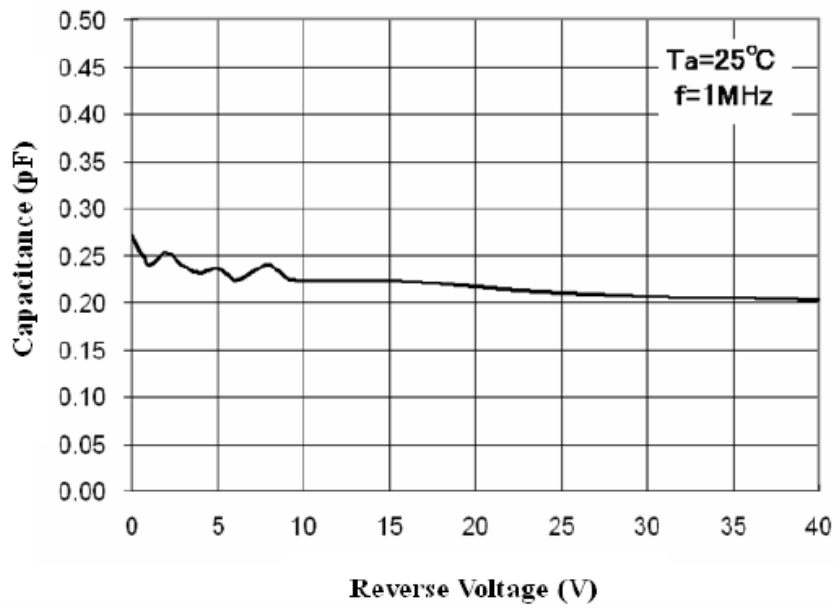
Electrical Characteristics

(T_A=25°C Unless Otherwise specified)

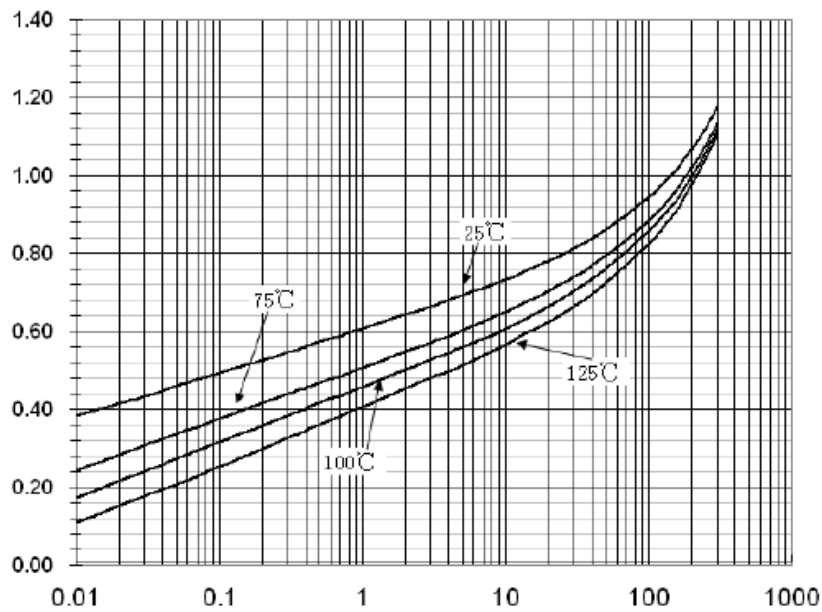
Symbol	Parameter	Test Condition	Min	Max	Units
V _F	Forward Voltage GSD1N4448W GSD1N4148W GSD1N4448W	I _F =5mA I _F =10mA I _F =100mA	0.62 - -	0.72 1.0 1.0	V
I _R	Reverse Leakage Current	V _R =20V V _R =75V	- -	25 5	nA uA
B _V	Breakdown Voltage	I _R =100μA I _R =5μA	100 75	- -	V
C	Capacitance	V _R =0V, f=1MHz	-	4	pF
T _{RR}	Reverse Recovery Time	I _F =10mA, I _R =60mA R _L =100Ω, I _{RR} =1mA	-	4	nS

Typical Characteristics

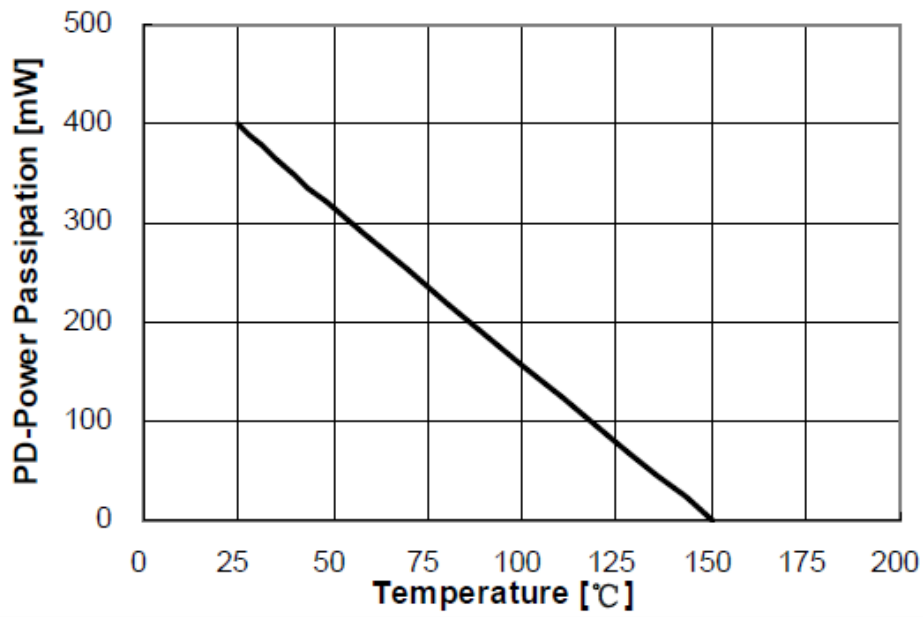
Total Capacitance



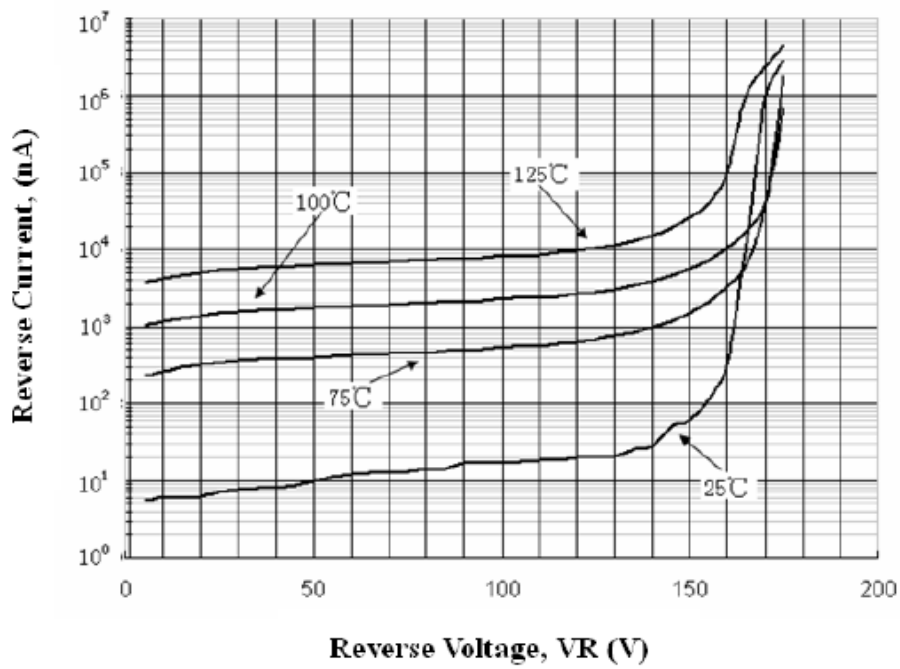
Forward Voltage vs Ambient Temperature



Power Derating Curve

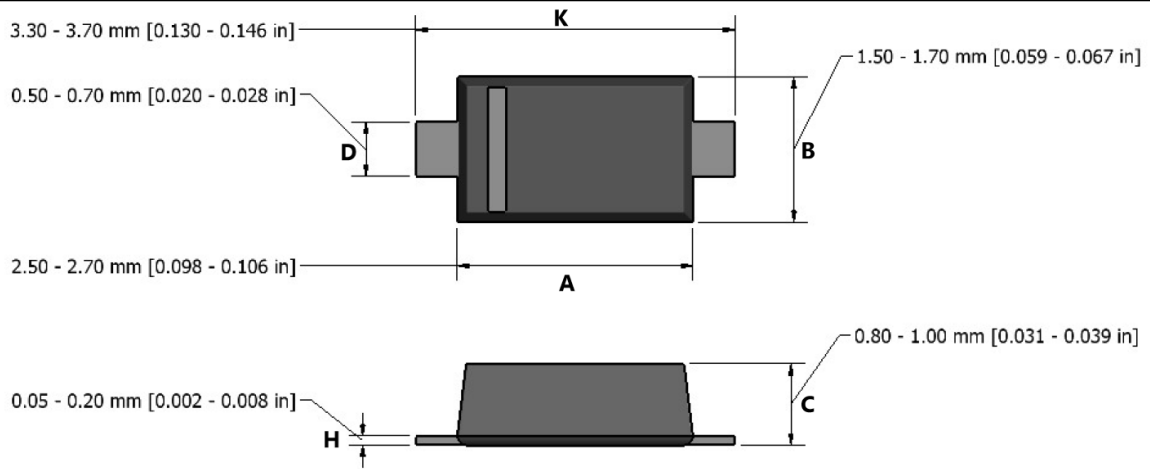


Reverse Current vs Reverse Voltage



Package Dimension

SOD-123







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



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

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