

GSD1N4148D3F

Switching Diode



Product Description

It is a fast switching diode for general switching applications.

Features

- 100V 150mA
- SOD-323 Package
- RoHS Compliant and Halogen Free
- Band Indicates Cathode

Package and Pin Assignment

GSD1N4148D3F (SOD-323)	Equivalent Circuit
 <p>*Band indicates Cathode</p>	

Ordering and Marking Information

Part Number	Package	Part Marking	Quantity/Reel
GSD1N4148D3F	SOD-323	T4	3,000 PCS
- Product Code: GSD1N4148	- Package Code: D3 for SOD-323	- Green Level: F for RoHS Compliant and Halogen Free	

GSD1N4148D3F

Absolute Maximum Ratings (T_A=25°C Unless Otherwise specified)

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

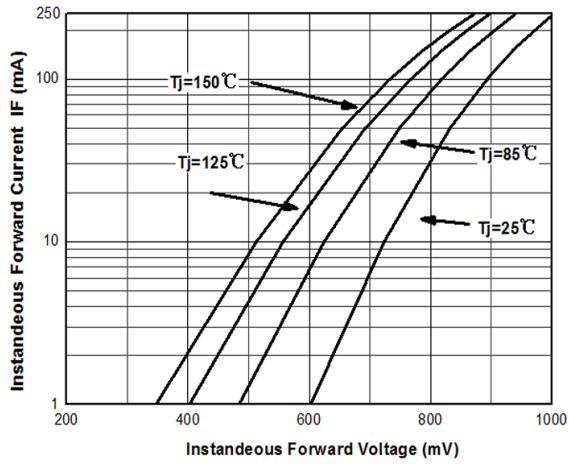
These ratings are limiting values above which the serviceability of the diode may be impaired.

*: Device mounted on 1"x1" FR4 PCB

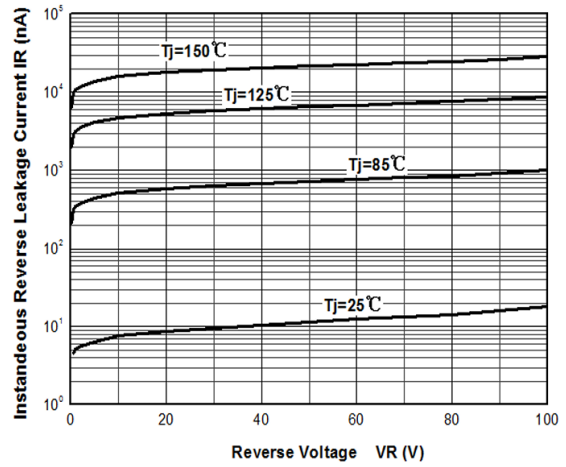
Electrical Characteristics (T_A=25°C Unless Otherwise specified)

Symbol	Parameter	Test Condition	Min	Max	Units
V _{(BR)R}	Reverse Breakdown Voltage	I _R =100μA I _R =5μA	100 75	-	V
I _R	Reverse Current	V _R =20V V _R =75V	- -	25 5	nA μA
V _F	Forward Voltage	I _F =5mA I _F =10mA I _F =100mA	0.62 - -	0.72 1.0 1.0	V
C _T	Total Capacitance	V _R =0V, f = 1MHz	-	4	pF
t _{rr}	Reverse Recovery Time	I _F =10mA, V _R =6V R _L =100Ω, I _{RR} =1mA	-	4	ns

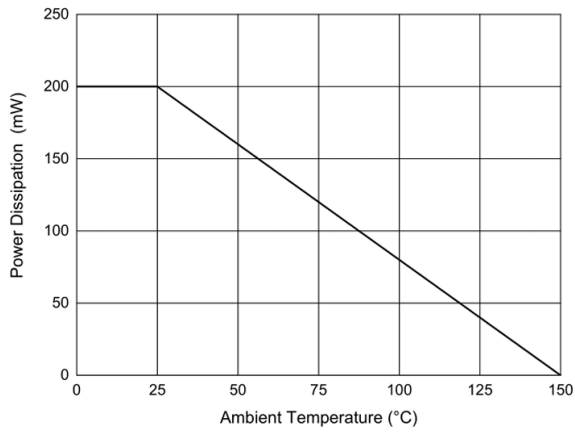
Typical Characteristics



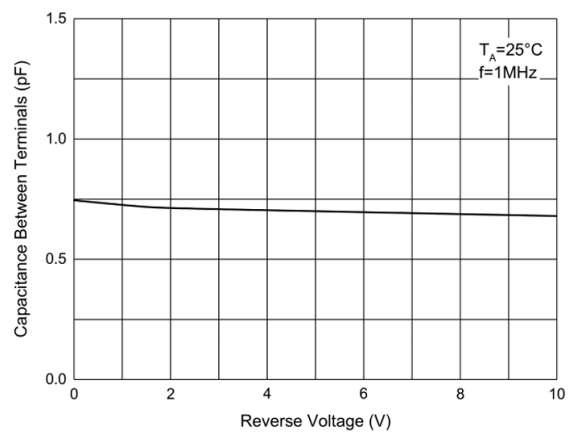
Typical Instantaneous Forward Characteristics



Typical Reverse Leakage Characteristics



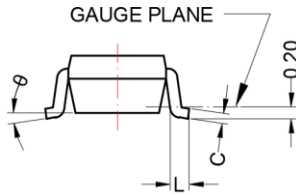
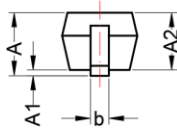
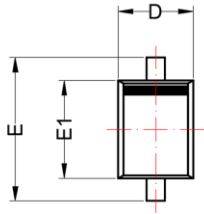
Power Derating Curve



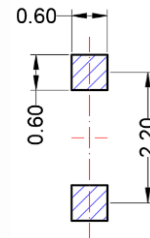
Capacitance Characteristics

SOD-323

Package Dimension



Recommended Land Pattern



Dimensions				
Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A	---	1.10	---	0.043
A1	0.00	0.10	0.000	0.004
A2	0.80	---	0.031	---
b	0.25	0.40	0.010	0.016
c	0.08	0.25	0.003	0.010
D	1.15	1.35	0.045	0.053
E	2.30	2.70	0.091	0.106
E1	1.60	1.80	0.063	0.071
L	0.10	0.40	0.004	0.016
θ	0°	8°	0°	8°





NOTE:



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

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