

GSD1N4148WSF

Switching Diode

Product Description

Switching Diode 150mA / 100V

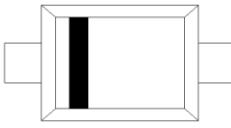
Features

- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- General Purpose Switching Application

Mechanical Data

- Case: SOD-323FL, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- RoHS Compliant and Halogen Free

Packages & Pin Assignments

SOD-323FL	Equivalent Circuit
 *Band indicates Cathode	

GSD1N4148WSF

Ordering and Marking Information

Ordering Information			
Part Number	Package	Marking Code	Quantity/Reel
GSD1N4148WSF	SOD-323FL	S1 or T4	3,000 PCS
- Product Code: GSD1N4148	- Package Code: WS for SOD-323FL Package	- Green Level: F for RoHS Compliant and Halogen Free	
Marking Information			
	 S1		 T4
Product Code: S1 or T4			

Absolute Maximum Ratings ($T_A=25^\circ\text{C}$ Unless Otherwise specified)

Symbol	Parameter	Value	Units
V_{RM}	Non-Repetitive Peak Reverse Voltage	100	V
V_{RRM}	Repetitive Peak 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
T_{STG}	Storage Temperature Range °C	-55 to + 150	°C

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

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

Typical Characteristics

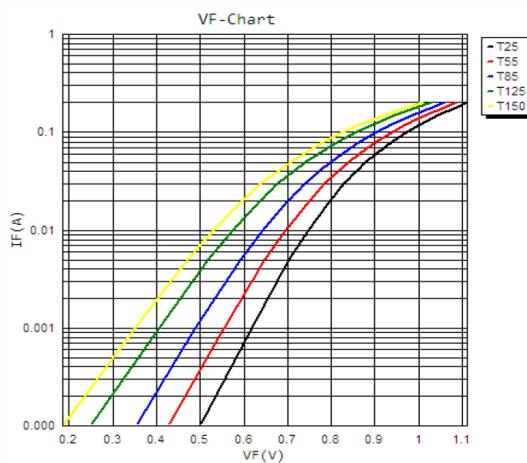


Fig. 1 Forward current (I_F) vs Forward voltage (V_F)

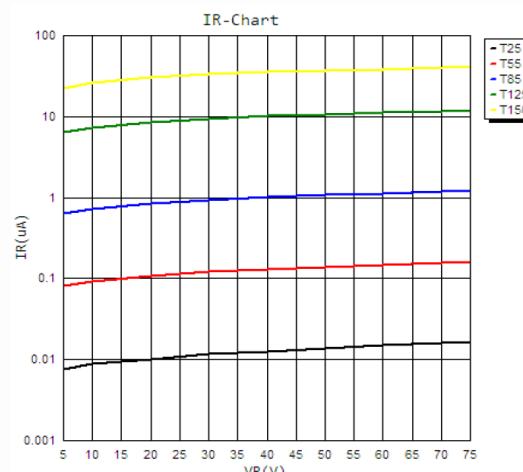


Fig. 2 Reverse current (I_R) vs Reverse voltage (V_R)

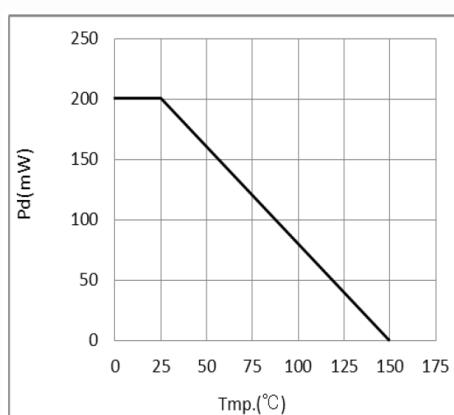


Fig. 3 Power Derating Curve

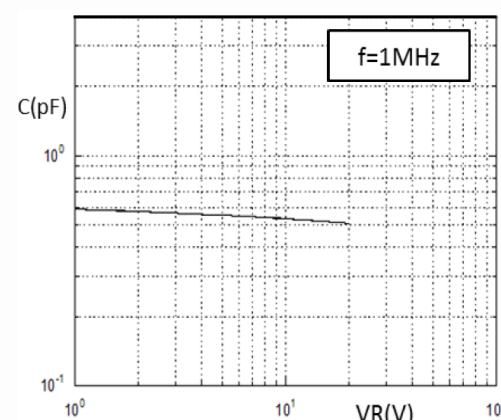
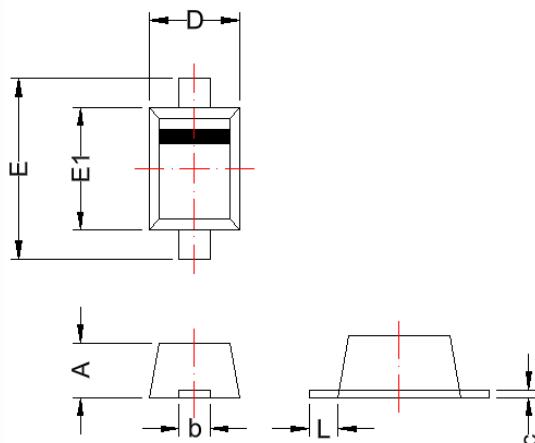


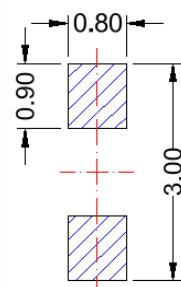
Fig. 4 Capacitance vs Reverse voltage (V_R)

SOD-323FL

Package Dimension



Recommended Land Pattern



Unit:mm

Dimensions

SYMBOL	Millimeters		Inches	
	MIN	MAX	MIN	MAX
A	0.60	1.00	0.024	0.039
b	0.25	0.40	0.010	0.016
c	0.05	0.26	0.002	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	0.30	0.50	0.012	0.020

NOTE:

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

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