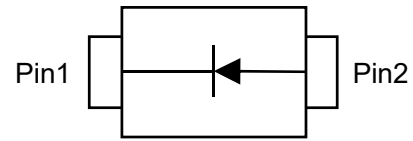


**Description**

The P1N4148W is a switching diode RoHS compliant.


**Circuit Diagram**
**Feature**

- For surface mounted applications
- Fast reverse recovery time
- Glass Passivated Chip Junction
- Ideal for automated placement

**Mechanical Characteristics**

- SOD-123FL package

**Electrical characteristics per line@25°C ( unless otherwise specified)**

Parameter	Symbol	Value	Units	
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	100	V	
Maximum RMS Voltage	$V_{RMS}$	75	V	
Continuous Forward Current	$I_F$	300	mA	
Non-repetitive Peak Forward Surge Current at 1ms	$I_{FSM}$	4.0	A	
Total Power Dissipation	$P_{tot}$	400	mW	
Reverse Breakdown Voltage at $I_R=1\mu A$	$V_{(BR)R}$	75	V	
Maximum Forward Voltage	$V_F$	at 1mA	0.715	V
		at 10mA	0.855	
		at 50mA	1.0	
		at 150mA	1.25	
		at 300mA	1.50	
Peak Reverse Current	$I_R$	at $V_R=20V, T_j=25^\circ C$	0.025	$\mu A$
		at $V_R=75V, T_j=25^\circ C$	1.0	
		at $V_R=25V, T_j=150^\circ C$	30	
		at $V_R=70V, T_j=150^\circ C$	50	
Typical Junction Capacitance	$C_J$	5.0	pF	
Maximum Reverse Recovery Time	$t_{rr \text{ Typical}}$	8.0	ns	

**Absolute maximum rating@25°C**

Parameter	Symbol	Value	Units
Operating and Storage Temperature Range	$T_J, T_{stg}$	-55~+150	°C

## Typical Characteristics

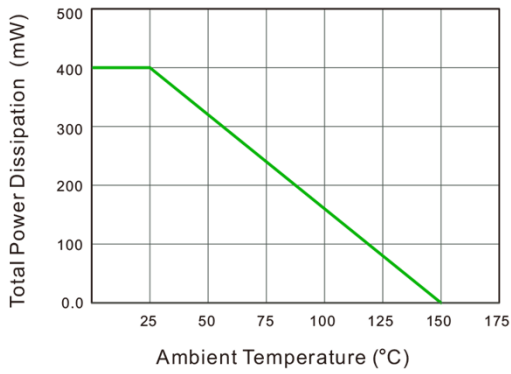


Fig.1 Power Derating Curve

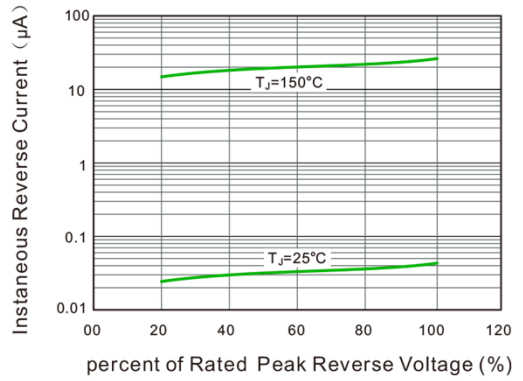


Fig.2 Typical Reverse Characteristics

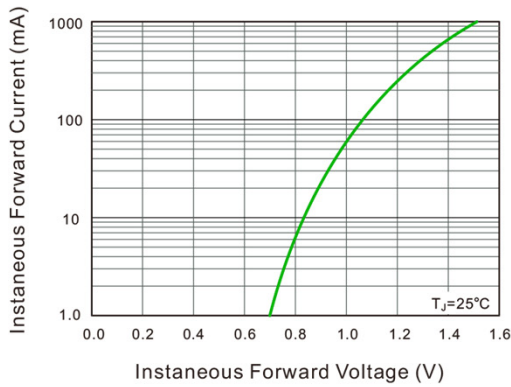


Fig.3 Typical Instantaneous Forward Characteristics

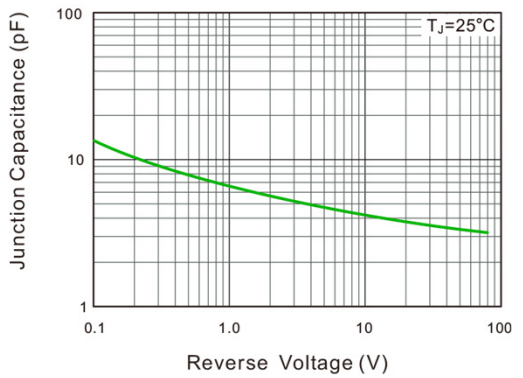
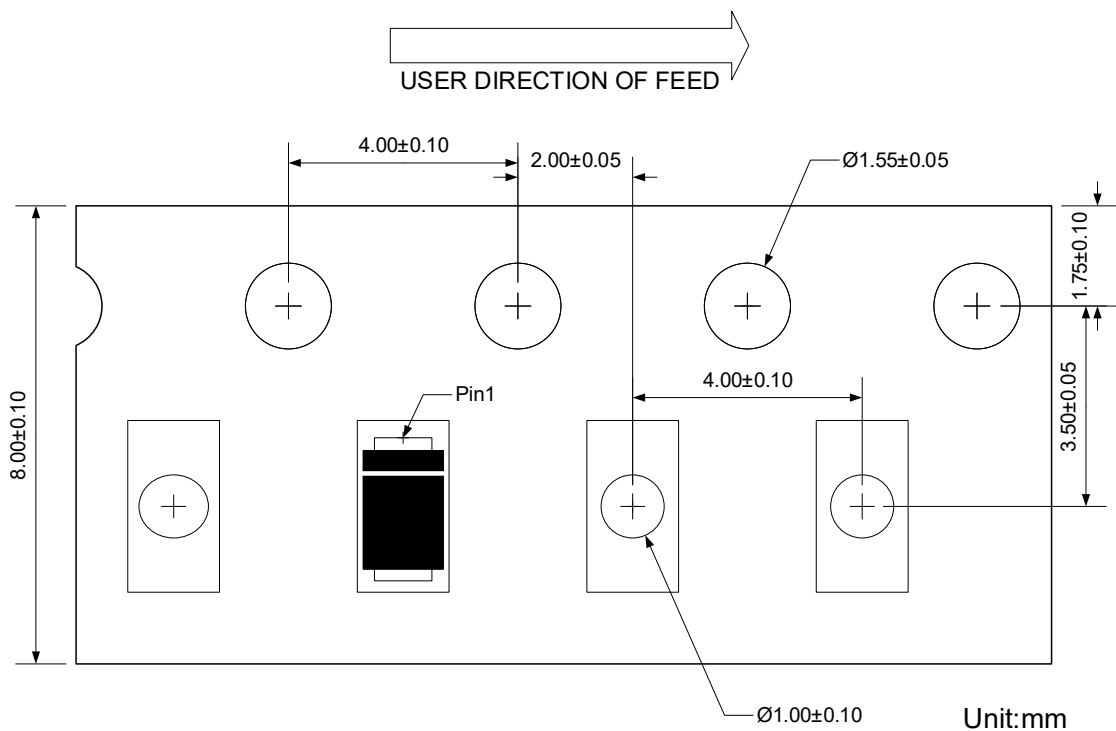
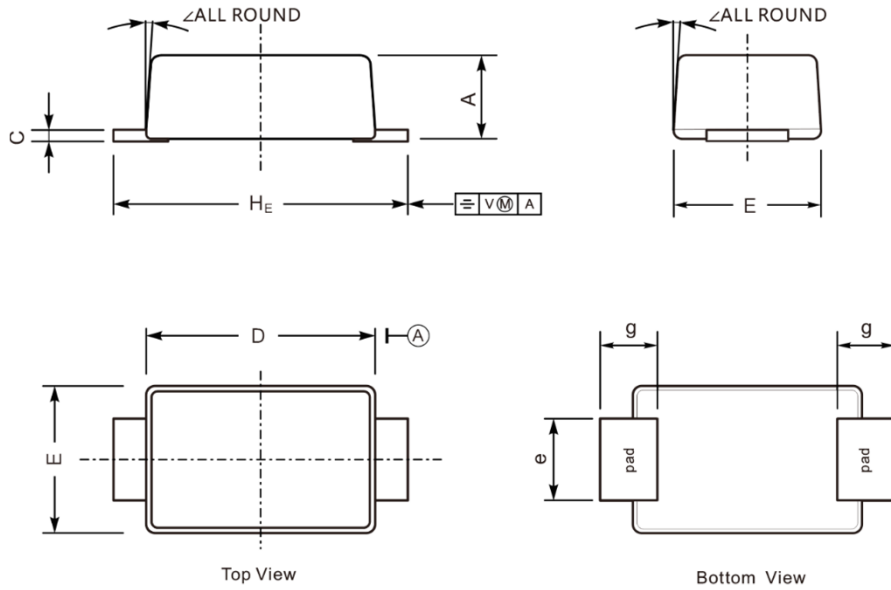


Fig.4 Typical Junction Capacitance

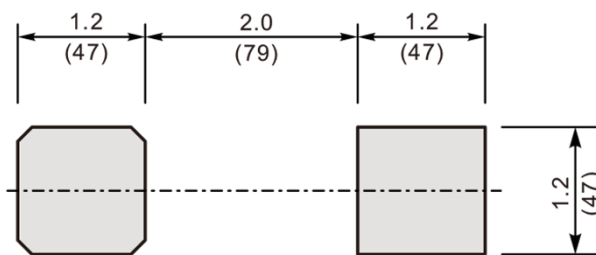
## Load with information



Product dimension (SOD-123FL)



Dim	Millimeters		Inches	
	Min	Max	Min	Max
A	0.80	1.20	0.031	0.047
C	0.05	0.25	0.002	0.010
HE	3.50	3.90	0.138	0.154
E	1.55	1.95	0.061	0.077
D	2.50	2.90	0.098	0.114
g	0.50	1.10	0.020	0.043
e	0.60	1.10	0.024	0.043
∠	7°			




Suggested PCB Layout

Unit:  $\frac{\text{mm}}{\text{mil}}$

Ordering information

Device	Package	Shipping
P1N4148W	SOD-123FL	3000 / Tape & Reel


**IMPORTANT NOTICE**

 and **Prisemi**<sup>®</sup> are registered trademarks of **Prisemi Electronics Co., Ltd** (Prisemi), Prisemi reserves the right to make changes without further notice to any products herein. Prisemi makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does Prisemi assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. "Typical" parameters which may be provided in Prisemi data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including "Typicals" must be validated for each customer application by customer's technical experts. Prisemi does not convey any license under its patent rights nor the rights of others. The products listed in this document are designed to be used with ordinary electronic equipment or devices, Should you intend to use these products with equipment or devices which require an extremely high level of reliability and the malfunction of with would directly endanger human life (such as medical instruments, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), please be sure to consult with our sales representative in advance.

Website: <http://www.prisemi.com>

For additional information, please contact your local Sales Representative.

©Copyright 2009, Prisemi Electronics

 **Prisemi**<sup>®</sup> is a registered trademark of Prisemi Electronics.

All rights are reserved.