

## Description

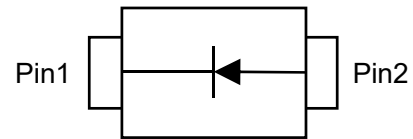
The P1N4148W is a switching diode  
RoHS compliant.

## Feature

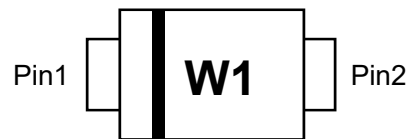
- For surface mounted applications
- Fast reverse recovery time
- Glass Passivated Chip Junction
- Ideal for automated placement

## Mechanical Characteristics

- SOD-123FL package



**Circuit Diagram**



**Marking**

## 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-reptitive Peak Forward Surge Current at 1ms		$I_{FSM}$	4.0	A
Total Power Dissipation		$P_{tot}$	400	mW
Reverse BreakdownVoltage at $I_R=1\mu A$		$V_{(BR)R}$	75	V
Maximum Forward Voltage	at 1mA	$V_F$	0.715	V
	at 10mA		0.855	
	at 50mA		1.0	
	at 150mA		1.25	
	at 300mA		1.50	
Peak Reverse Current	at $V_R=20V, T_J=25^\circ C$	$I_R$	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

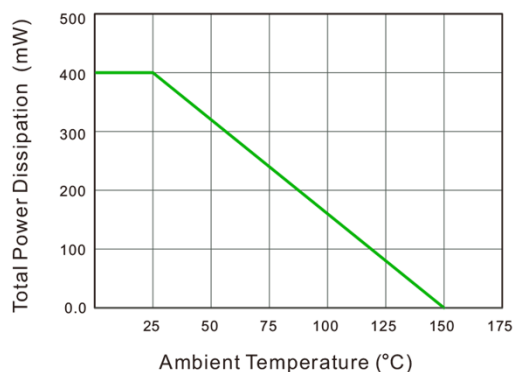


Fig.1 Power Derating Curve

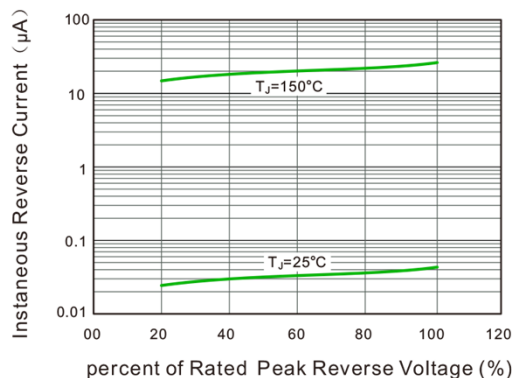


Fig.2 Typical Reverse Characteristics

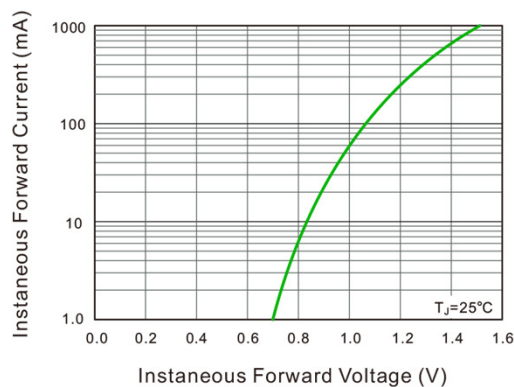


Fig.3 Typical Instantaneous Forward Characteristics

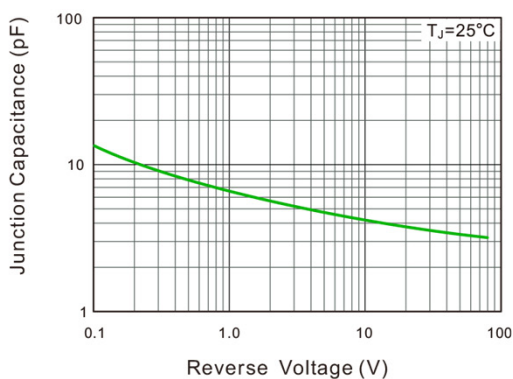
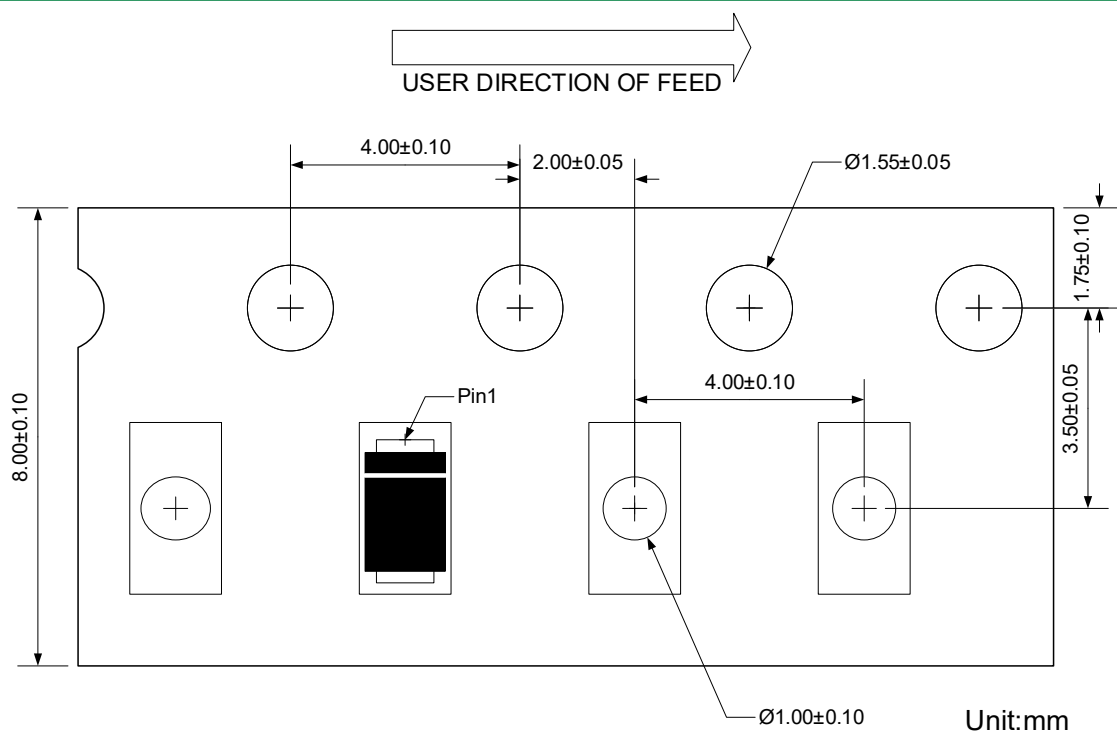


Fig.4 Typical Junction Capacitance

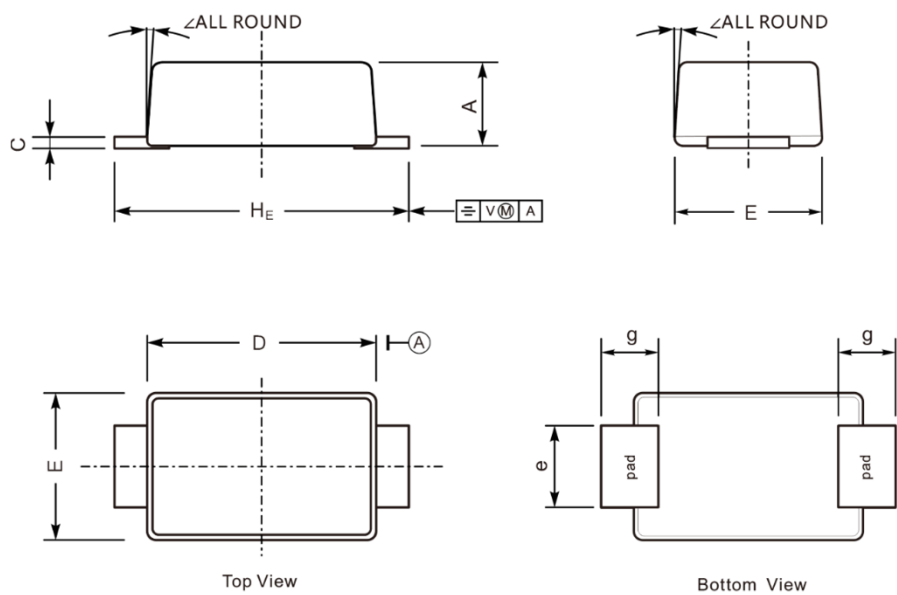
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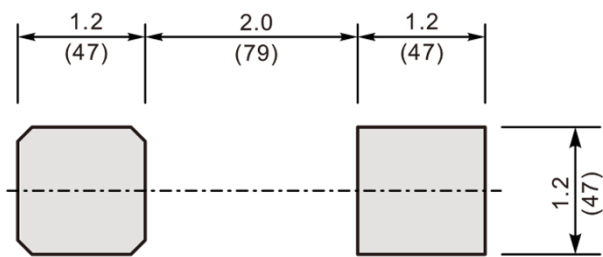
Switching Diode

P1N4148W

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
H <sub>E</sub>	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
$\angle$	7°			




Suggested PCB Layout

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

Ordering information

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


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