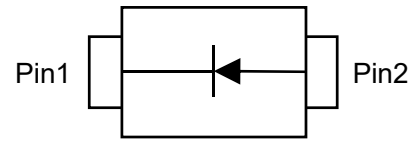


Description

The P1N4148W is a switching diode
Pb-Free Packages are available


Circuit Diagram
Feature

- For surface mounted applications
- Fast reverse recovery time
- Glass Passivated Chip Junction
- Ideal for automated placement
- Lead free in comply with EU RoHS 2011/65/EU directives

Mechanical Characteristics

- SOD-123FL package
- Approx. Weight:15mg 0.00053oz

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	μA
		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

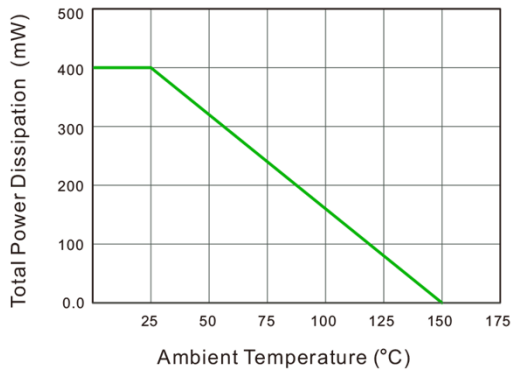


Fig.1 Power Derating Curve

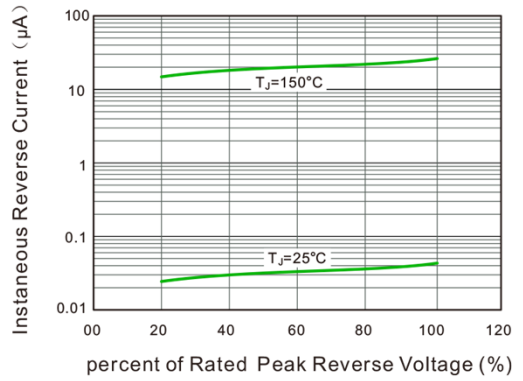


Fig.2 Typical Reverse Characteristics

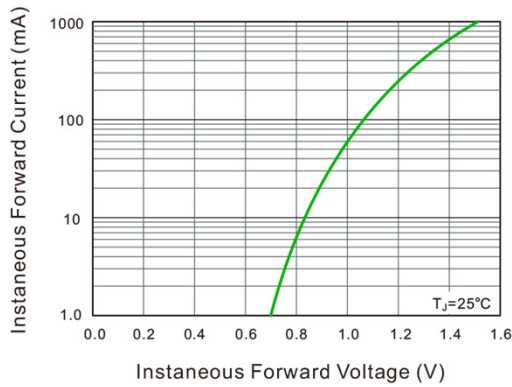


Fig.3 Typical Instantaneous Forward Characteristics

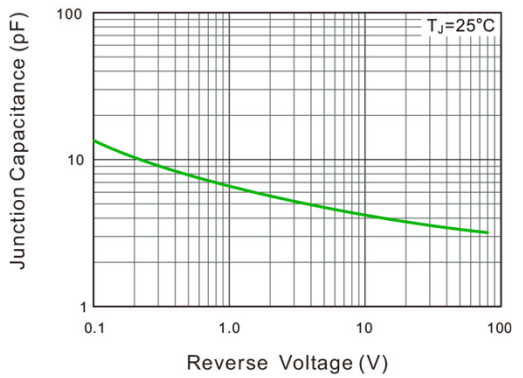
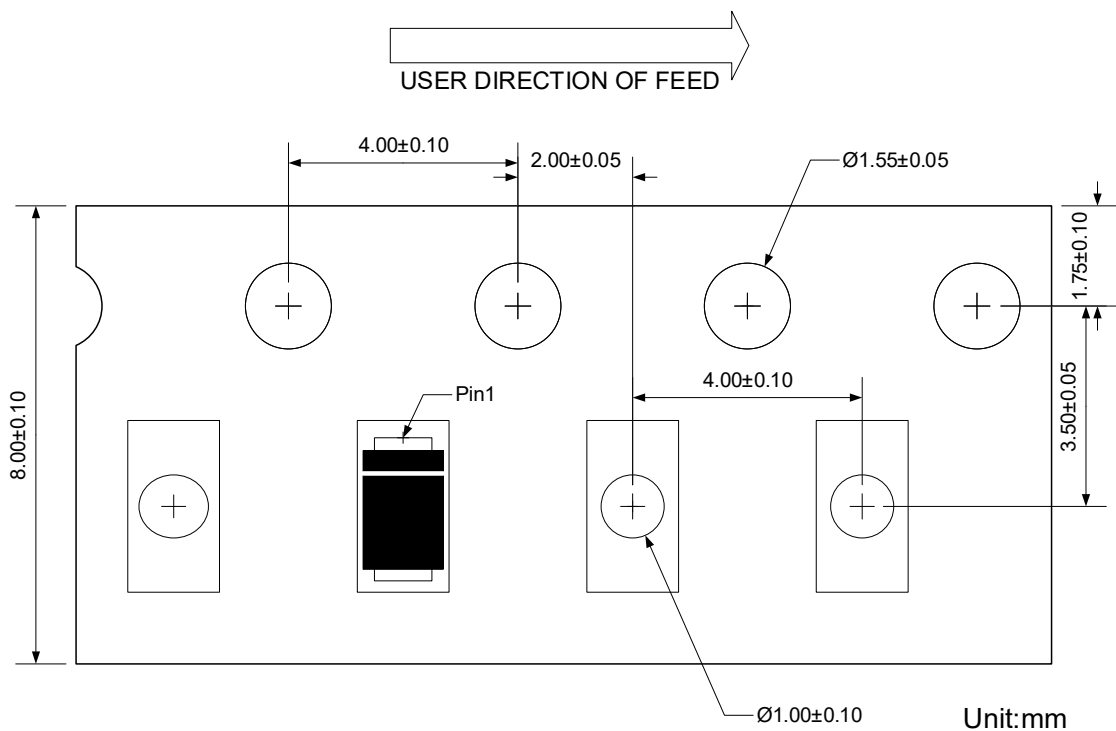
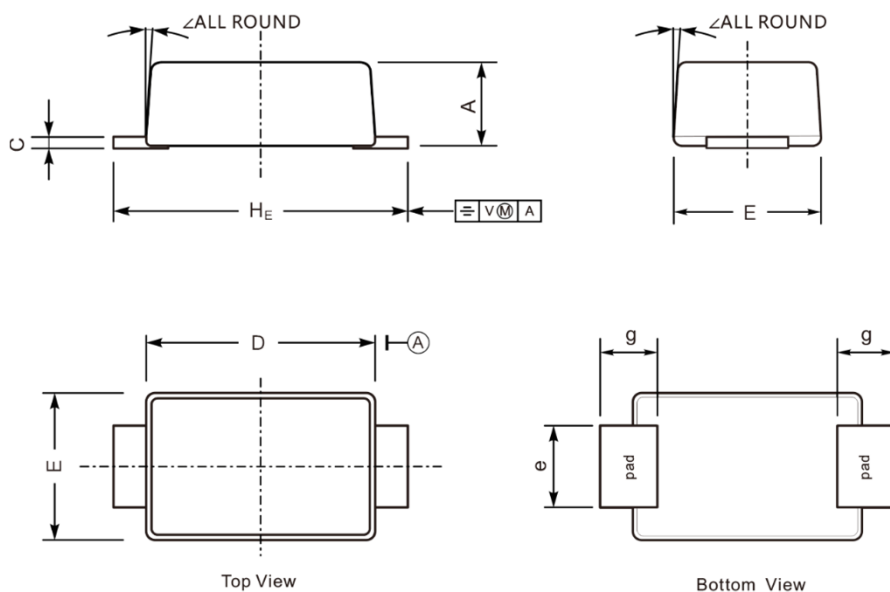


Fig.4 Typical Junction Capacitance

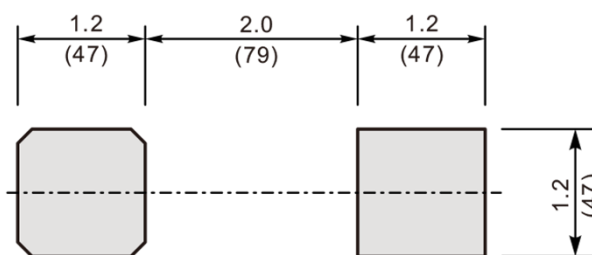
Load with information



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
H _E	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 (Pb-Free)	3000 / Tape & Reel


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