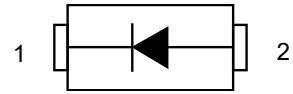


Description

The P1N4148WS is a switching diode

Pb-Free Packages are available

SOD-323 package



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



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

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Breakdown Voltage	V_{BR}	$I_R = 1\mu A$	75			V
Reverse Leakage Current	I_R	$V_{RWM} = 20V$ $T=25^\circ C$			0.025	μA
		$V_{RWM} = 25V$ $T=150^\circ C$			30	
		$V_{RWM} = 75V$ $T=25^\circ C$			1	
		$V_{RWM} = 75V$ $T=150^\circ C$			50	
Forward Voltage	V_F	$I_F=1mA$			0.715	V
		$I_F=10mA$			0.855	
		$I_F=50mA$			1.0	
		$I_F=150mA$			1.25	
		$I_F=300mA$			1.5	
Reverse Recovery Time	t_{rr}	$I_F=0.5A$ $I_R=1A$ $I_{rr}=0.25A$		8.0		ns
Diode Capacitance	C	$V_R=4V$ $f = 1MHz$		5.0		pF

Absolute maximum rating@25°C

Rating	Symbol	Value	Units
Repetitive Peak Reverse Voltage	V_{RRM}	100	V
RMS Voltage	V_{RMS}	75	V
Continuous Forward Current	I_F	300	mA
No-repetitive Peak Forward Surge Current at 1ms	I_{FSM}	4	A
Power Dissipation	P_{tot}	400	mW
Typical Thermal Resistance	$R_{\theta JA}$	170	$^\circ C/W$
Lead Soldering Temperature	T_L	260 (10 sec)	$^\circ C$
Junction and Storage Temperature Range	T_J, T_{STG}	-55~+150	$^\circ C$

Typical Characteristics

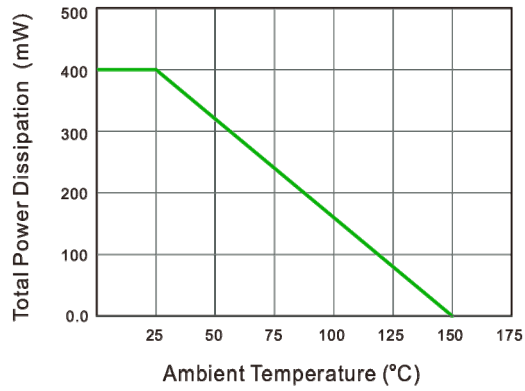


Fig.1 Power Derating Curve

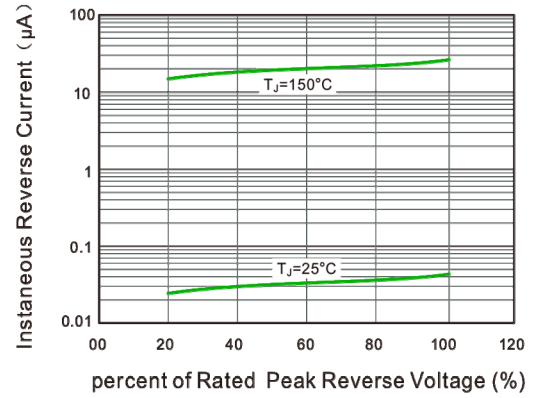


Fig.2 Typical Reverse Characteristics

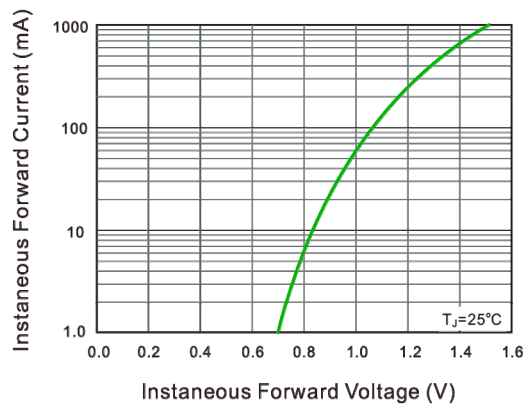


Fig.3 Typical Instantaneous Forward Characteristics

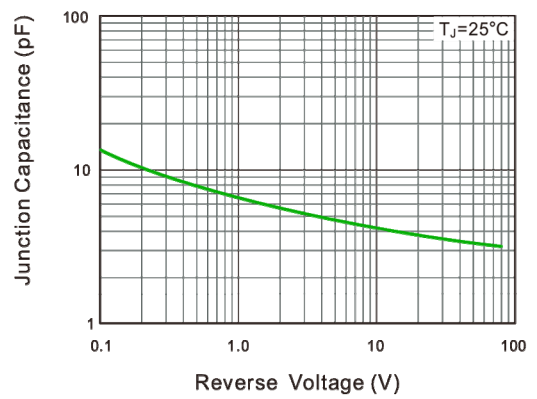
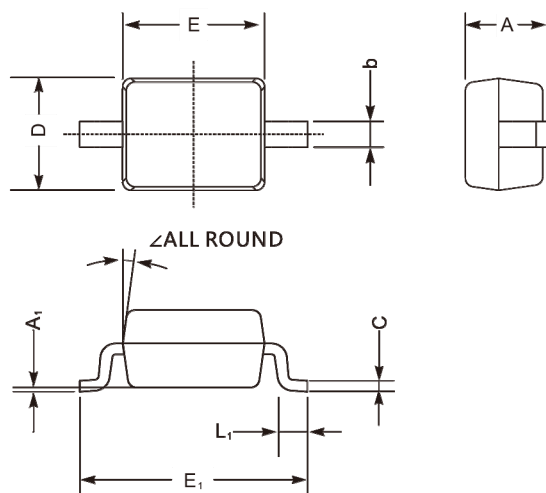
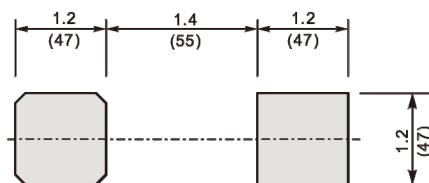


Fig.4 Typical Junction Capacitance

Product dimension (SOD-323)



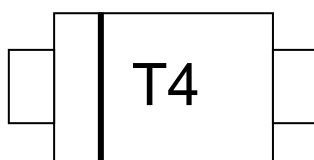
Dim	Millimeters		Inches	
	MIN	MAX	MIN	MAX
A	0.80	1.10	0.031	0.043
C	0.08	0.15	0.003	0.006
D	1.20	1.40	0.047	0.055
E	1.40	1.80	0.055	0.071
E1	2.55	2.75	0.100	0.108
b	0.25	0.40	0.010	0.016
L1	0.20	0.45	0.008	0.018
A1	0.00	0.20	0.000	0.008
∠	9°		9°	



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

Suggested PCB Layout

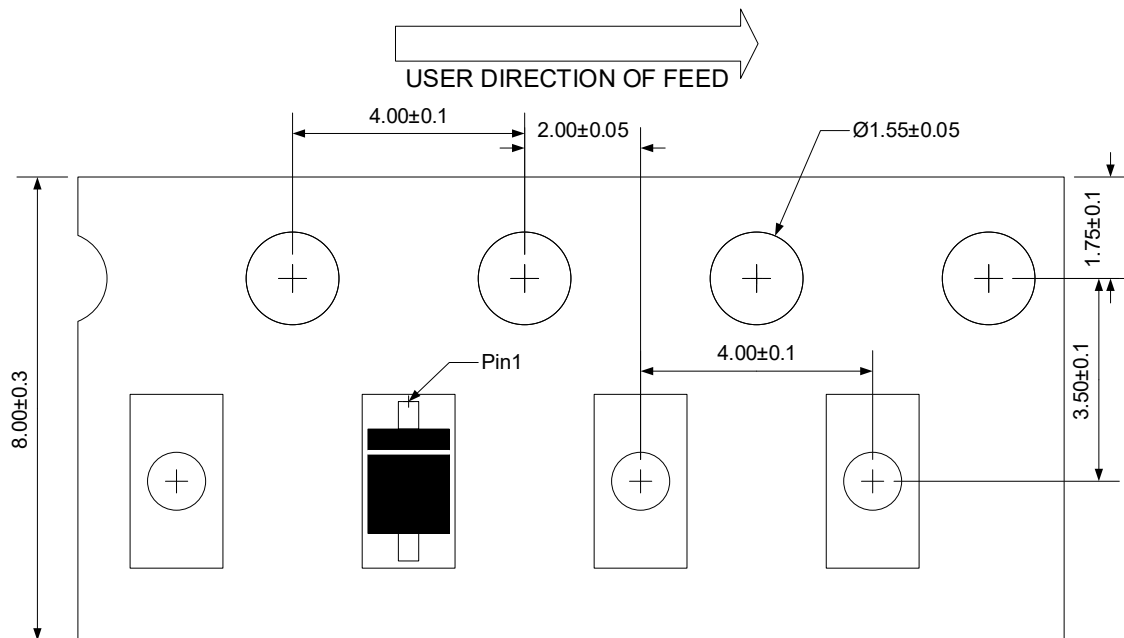
Marking information



Ordering information


Device	Package	Reel	Shipping
P1N4148WS	SOD-323 (Pb-Free)	7"	3000 / Tape & Reel

Load with information



Unit:mm


IMPORTANT NOTICE

 and **Prisemi**[®] 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 which 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**[®] is a registered trademark of Prisemi Electronics.

All rights are reserved.