



DATA SHEET

1N4148WS, 1N4448WS, BAV16WS

SURFACE MOUNT SWITCHING DIODES

VOLTAGE 100 Volts **POWER** 200mWatts

SOD-323

Unit: inch (mm)

FEATURES

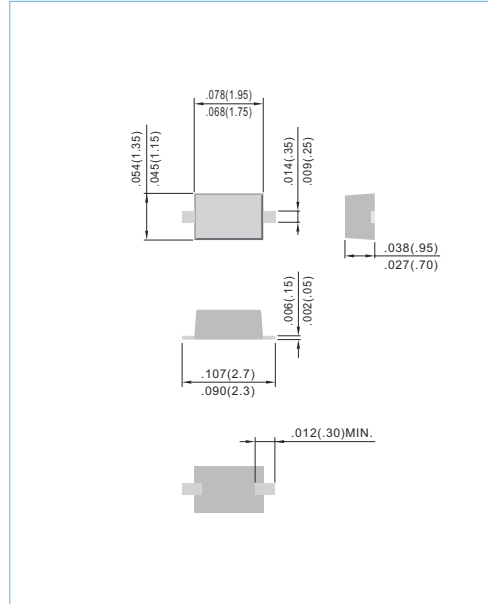
- Fast switching speed.
- Surface mount package Ideally Suited for Automatic insertion
- Electrically Identical to Standard JEDEC
- High Conductance
- Pb free product are available : 99% Sn above can meet Rohs environment substance directive request

MECHANICAL DATA

Case: SOD-323, Plastic

Terminals: Solderable per MIL-STD-202G, Method 208

Approx. Weight: 4.1mg



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. For capacitive load, derate current by 20%.

PARAMETER	SYMBOL	1N4148WS	1N4448WS	BAV16WS	UNITS
Marking Code		A 2	A 3	A 6	
Reverse Voltage	V_R	75			V
Peak Reverse Voltage	V_{RM}	100			V
RMS Voltage	V_{RMS}	50			V
Maximum DC Blocking Voltage	V_{DC}	75			V
Maximum Average Forward Current at $T_a=25^\circ C$	I_{AV}	200			mA
Peak Forward Surge Current, 1.0us	I_{FSM}	2	4	2	A
Power Dissipation Derate Above 25°C	P_{TOT}	200			mW
Maximum Forward Voltage	V_F	0.715 @ 0.001A 0.855 @ 0.01A 1.0 / 0.05A 1.25 @ 0.15A	0.72 @ 0.005A 1.0 @ 0.1A	0.855 @ 0.01A	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	0.025 @ 20V 2.5 @ 75V	2.5 @ 75V	1.0 @ 75V	uA
Junction Capacitance (Notes1)	C_J	1.5	4.0	2.0	pF
Maximum Reverse Recovery (Notes2)	T_{RR}	4	4	6	ns
Maximum Thermal Resistance	$R_{\theta JA}$	640			°C / W
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 TO +150			°C

NOTE:

1. C_J at $V_R=0$, $f=1MHz$
2. From $I_F=10mA$ to $I_R=1mA$, $V_R=6Volts$, $R_L=100\Omega$

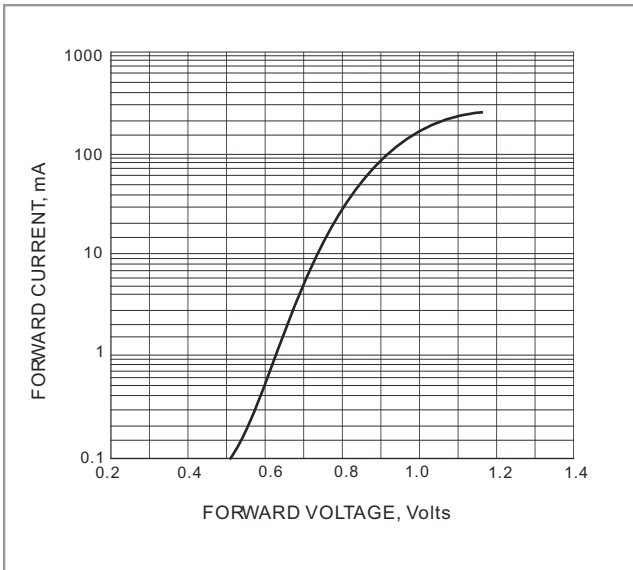


FIG. 1-TYPICAL FORWARD CHARACTERISTIC

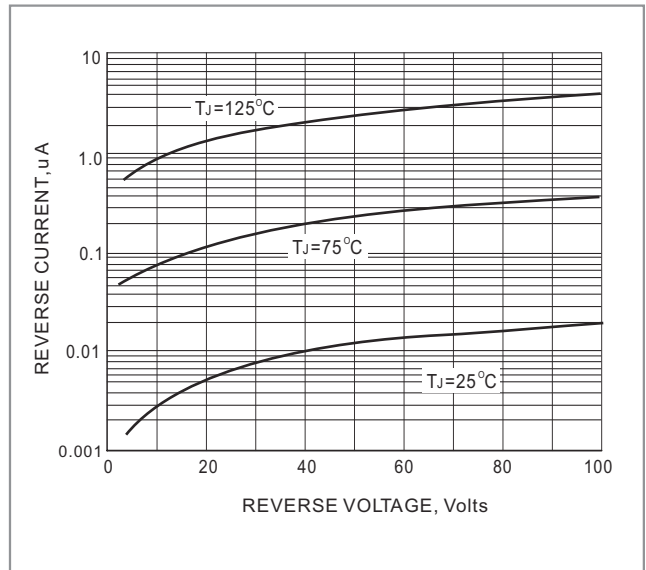


FIG. 2-TYPICAL REVERSE CHARACTERISTICS

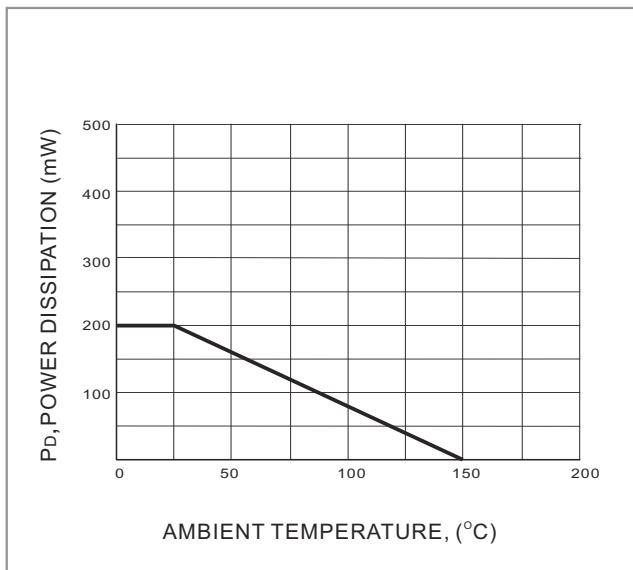


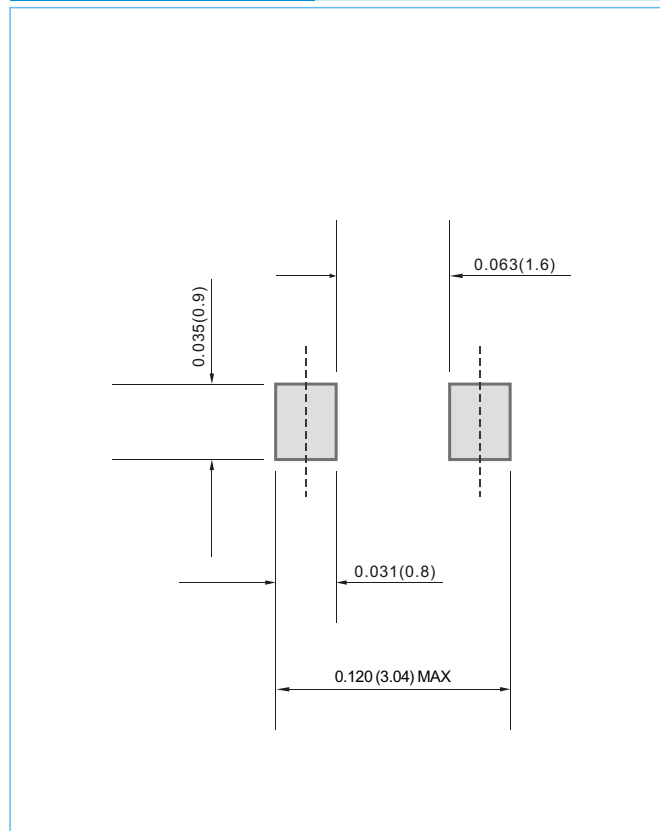
FIG. 3 POWER DERATING CURVE



MOUNTING PAD LAYOUT

SOD-323

Unit: inch (mm)



ORDER INFORMATION

- Packing information
 - T/R - 12K per 13" plastic Reel
 - T/R - 5.0K per 7" plastic Reel

LEGAL STATEMENT

IMPORTANT NOTICE

This information is intended to unambiguously characterize the product in order to facilitate the customer's evaluation of the device in the application. The information will help the customer's technical experts determine that the device is compatible and interchangeable with similar devices made by other vendors. The information in this data sheet is believed to be reliable and accurate. The specifications and information herein are subject to change without notice. New products and improvements in products and product characterization are constantly in process. Therefore, the factory should be consulted for the most recent information and for any special characteristics not described or specified.

Copyright Pan Jit International Inc. 2003

All rights reserved. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner.

The information presented in this document does not form part of any quotation or contract. The information presented is believed to be accurate and reliable, and may change without notice in advance. No liability will be accepted by the publisher for any consequence of use. Publication thereof does not convey nor imply any license under patent or other industrial or intellectual property rights.