



1N4148WS~BAV16WS

SURFACE MOUNT SWITCHING DIODES

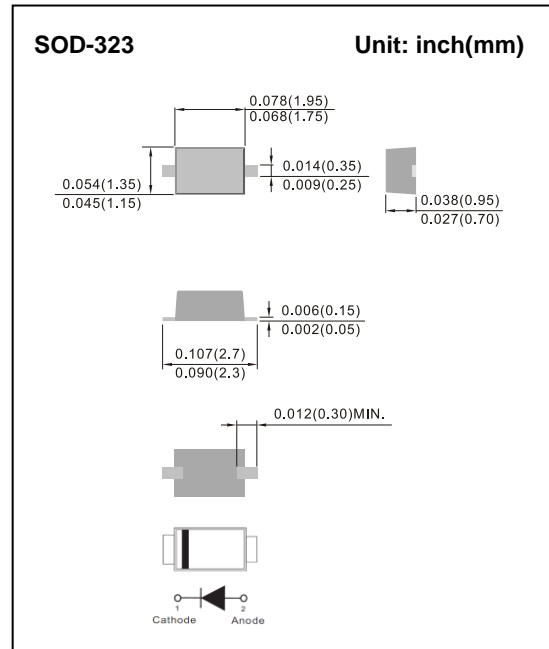
| | | | |
|----------------|--------------|--------------|--------------|
| Voltage | 100 V | Power | 250mW |
|----------------|--------------|--------------|--------------|

Features

- Fast switching speed.
- Surface mount package Ideally Suited for Automatic insertion
- Electrically Identical to Standard JEDEC
- High Conductance
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

Mechanical Data

- Case: SOD-323, plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Approx. Weight: 0.00014 ounces, 0.0041 grams



Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise noted)

| PARAMETER | SYMBOL | 1N4148WS | 1N4448WS | BAV16WS | UNIT |
|--|--------------------------|---|---------------------|-----------------------------------|--------------------|
| Marking code | - | A2 | A3 | A6 | - |
| Reverse voltage | V_R | 75 | | | V |
| Maximum dc blocking voltage | V_{DC} | 75 | | | V |
| Peak reverse voltage | V_{RM} | 100 | | | V |
| RMS voltage | V_{RMS} | 50 | | | V |
| Maximum average forward current at $T_A=25^\circ\text{C}$ | $I_{F(AV)}$ | 200 | | | mA |
| Peak forward surge current | I_{FSM} | | | | A |
| | | 0.001ms | 4 | | |
| | | 10ms | 1.5 | | |
| | | 1s | 0.5 | | |
| Power dissipation derate above 25°C | P_D | 250 | | | mW |
| Maximum forward voltage | V_F | 0.715@1mA 0.855@10mA 1@50mA 1.25@150mA | 0.72@5mA 1@100mA | 0.715@1mA 0.855@10mA 1@50mA | V |
| Maximum dc reverse current at rated dc blocking voltage | I_R | 0.025@20V 2.5@75V | 2.5@75V | 1@75V | μA |
| Junction capacitance Measured at 1MHz and applied $V_R=0\text{V}$ | C_J | 1.5 | 4 | 2 | pF |
| Maximum reverse recovery time | (Note 3) T_{RR} | 4 | 4 | 6 | ns |
| Typical thermal resistance | (Note 1) $R_{\theta JA}$ | 500 | | | $^\circ\text{C/W}$ |
| | (Note 2) $R_{\theta JA}$ | 650 | | | |
| | (Note 4) $R_{\theta JC}$ | 280 | | | |
| | (Note 4) $R_{\theta JL}$ | 400 | | | |
| Operating and storage temperature range | T_J, T_{STG} | -55 to +150 | | | $^\circ\text{C}$ |

- Note : 1. Mounted on a FR4, single-sided copper, with 50 x 15mm PCB.
 2. Mounted on a FR4, single-sided copper, with mini pad.
 3. From $I_F=10\text{mA}$ to $I_R=1\text{mA}$, $V_R=6\text{Volts}$, $R_L=100\Omega$.
 4. Mounted on a FR-4 PCB, single-sided copper, mini pad, with 100cm^2 copper pad area.



1N4148WS~BAV16WS

TYPICAL CHARACTERISTIC CURVES

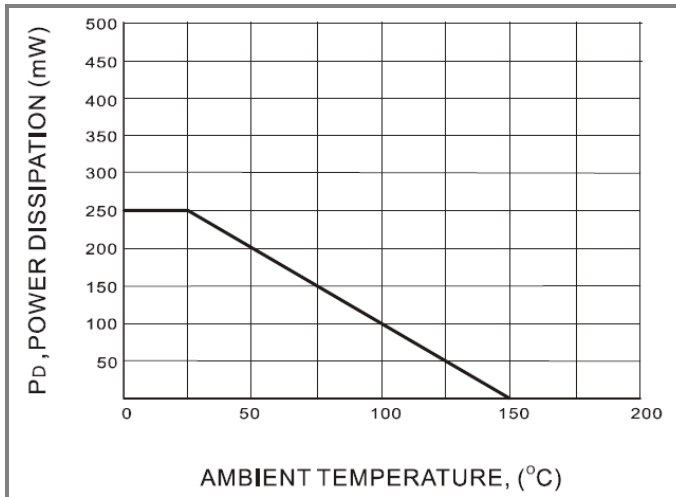


Fig.1 Power Derating Curve

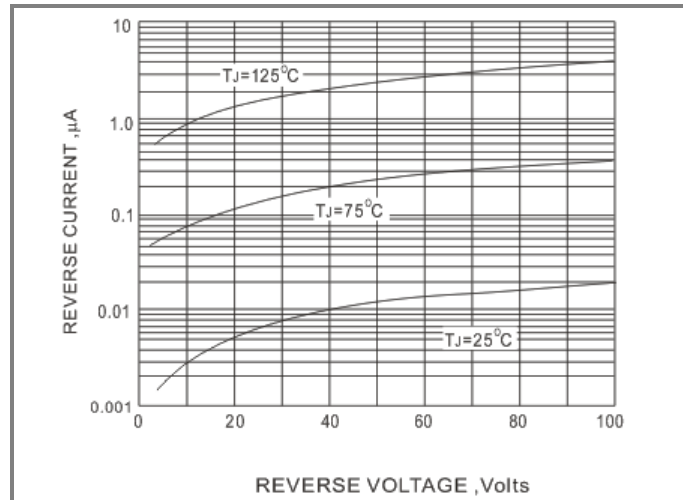


Fig.2 Typical Reverse Characteristics

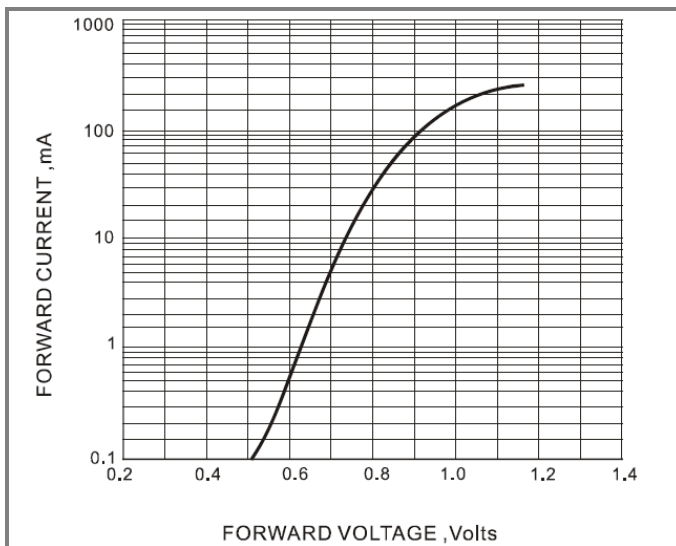


Fig.3 Typical forward Characteristics

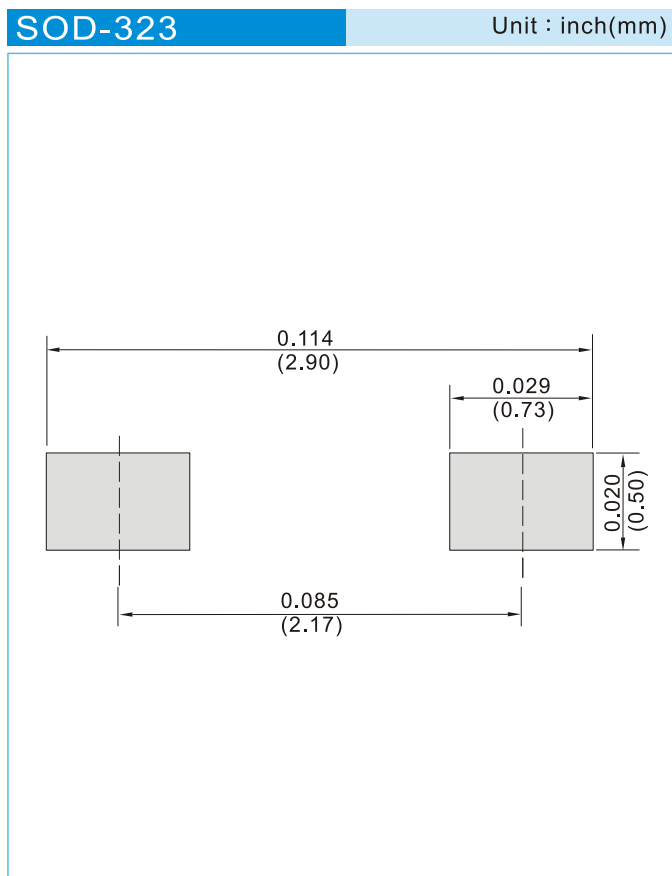


1N4148WS~BAV16WS

Part No Packing Code Version

| Part No Packing Code | Package Type | Packing Type | Marking | Version |
|----------------------|--------------|--------------------|---------|--------------|
| 1N4148WS_R1_00001 | SOD-323 | 5K pcs / 7" reel | A2 | Halogen free |
| 1N4148WS_R2_00001 | SOD-323 | 12K pcs / 13" reel | A2 | Halogen free |

Mounting Pad Layout





1N4148WS~BAV16WS

Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Diodes - General Purpose, Power, Switching category:](#)

Click to view products by [Panjit manufacturer:](#)

Other Similar products are found below :

[MCL4151-TR3](#) [MMBD3004S-13-F](#) [RD0306T-H](#) [RD0506LS-SB-1H](#) [RGP30G-E373](#) [DSE010-TR-E](#) [BAQ333-TR](#) [BAQ335-TR](#) [BAQ33-GS18](#) [BAS1602VH6327XT](#) [BAV17-TR](#) [BAV19-TR](#) [BAV301-TR](#) [BAW27-TAP](#) [HSC285TRF-E](#) [NSVBAV23CLT1G](#) [NTE525](#) [1SS181-TP](#) [1SS184-TP](#) [1SS193,LF](#) [1SS193-TP](#) [1SS400CST2RA](#) [SBAV99LT3G](#) [SDAA13](#) [LL4448-GS18](#) [SHN2D02FUTW1T1G](#) [LS4150GS18](#) [LS4151GS08](#) [SMMD7000LT3G](#) [FC903-TR-E](#) [1N4449](#) [1N4934-E3/73](#) [1SS226-TP](#) [APT100DL60HJ](#) [RFUH20TB3S](#) [RGP30G-E354](#) [RGP30M-E3/73](#) [D291S45T](#) [MCL4151-TR](#) [BAS 16-02V H6327](#) [BAS 21U E6327](#) [BAS 28 E6327](#) [BAS33-TAP](#) [BAS 70-02V H6327](#) [BAV300-TR](#) [BAV303-TR3](#) [BAW27-TR](#) [BAW56DWQ-7-F](#) [BAW56M3T5G](#) [BAW75-TAP](#)