



# 1N4148WS

## SURFACE MOUNT SWITCHING DIODES

**Voltage**

**100 V**

**Power**

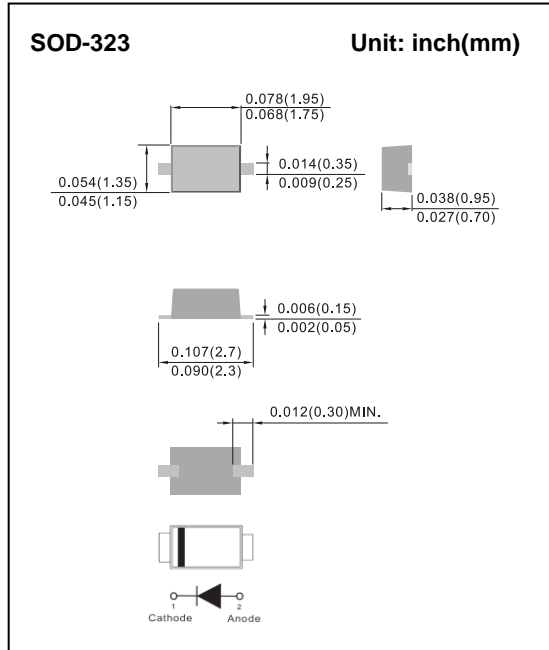
**250mW**

### 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	VALUE	UNIT
Marking code	-	A2	-
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	$I_{FSM}$	0.001ms	4
		10ms	1.5
		1s	0.5
Power dissipation derate above $25^\circ\text{C}$	$P_D$	250	mW
Maximum forward voltage	$V_F$	0.715@1mA	V
		0.855@10mA	
		1@50mA	
		1.25@150mA	
Maximum dc reverse current at rated dc blocking voltage	$I_R$	0.025@20V	$\mu\text{A}$
		2.5@75V	
Junction capacitance Measured at 1MHz and applied $V_R=0\text{V}$	$C_J$	1.5	pF
Maximum reverse recovery time	(Note 3) $T_{RR}$	4	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  $100\text{cm}^2$  copper pad area.



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## TYPICAL CHARACTERISTIC CURVES

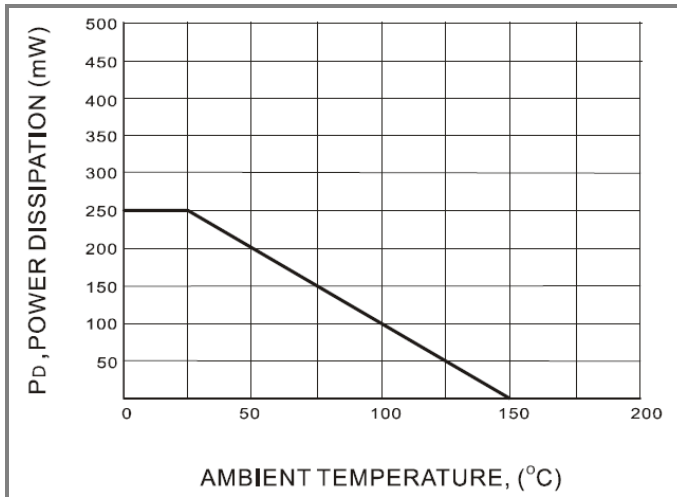


Fig.1 Power Derating Curve

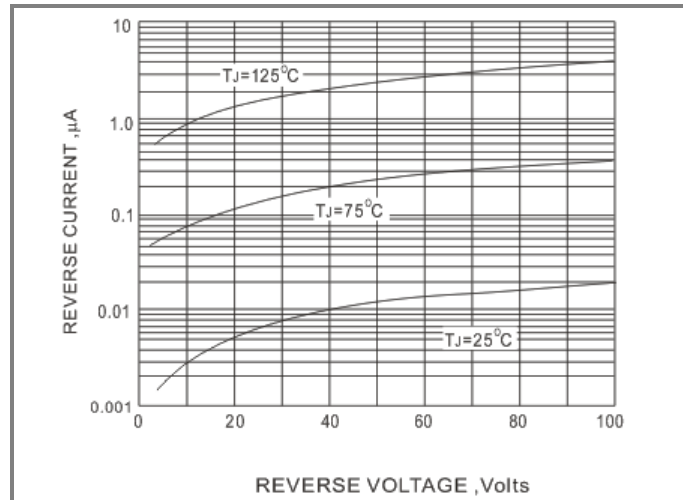


Fig.2 Typical Reverse Characteristics

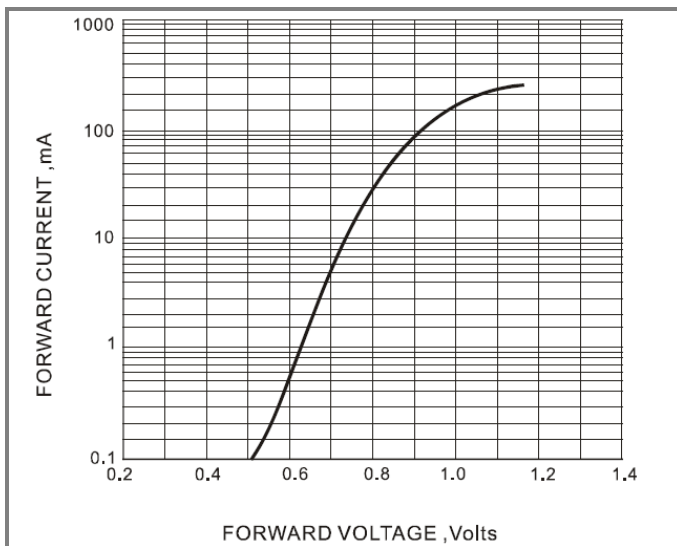


Fig.3 Typical Forward Characteristics

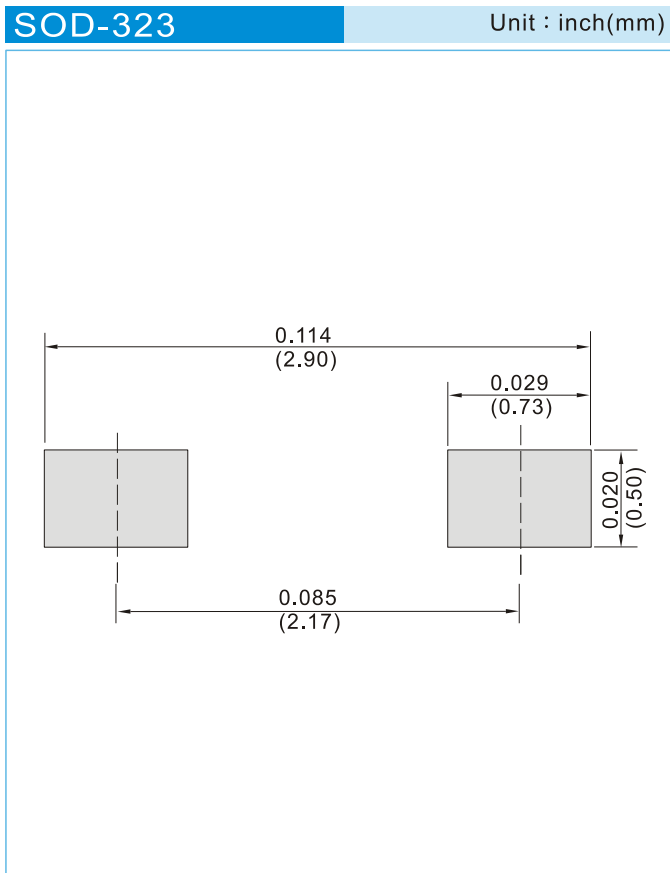


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## Part No Packing Code Version

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





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