

1N4148WS

SURFACE MOUNT SWITCHING DIODES

Voltage

100 V

Power

250mW

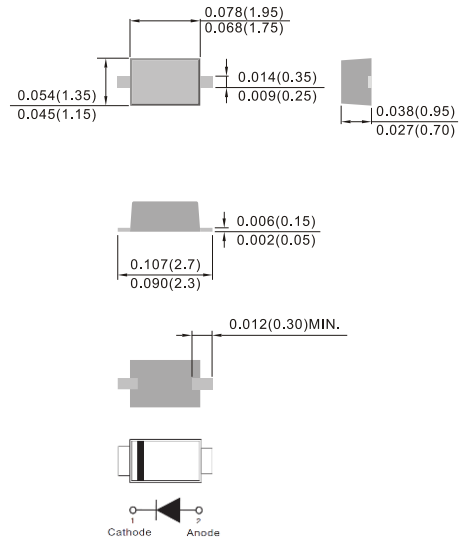
Features

- 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

SOD-323 Unit: inch(mm)



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°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	μA	
		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 100cm² copper pad area.

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TYPICAL CHARACTERISTIC CURVES

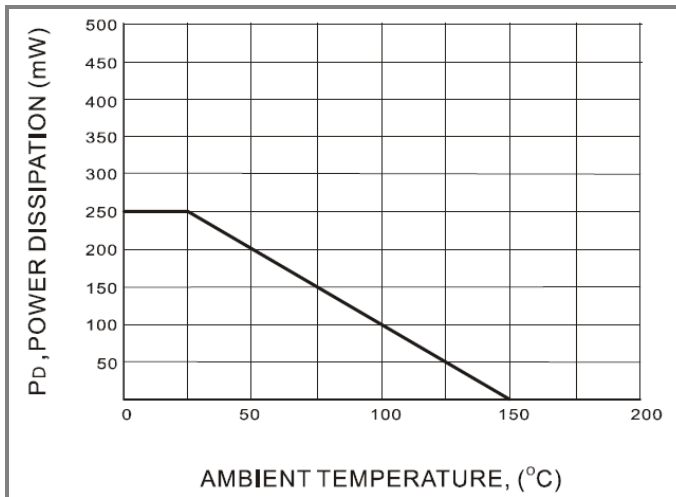


Fig.1 Power Derating Curve

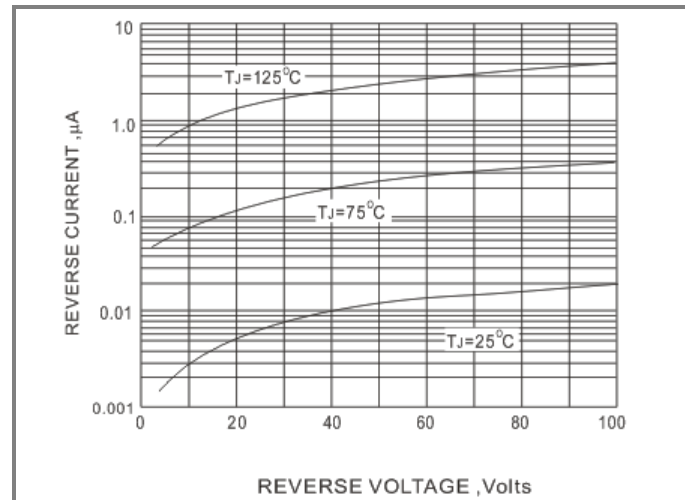


Fig.2 Typical Reverse Characteristics

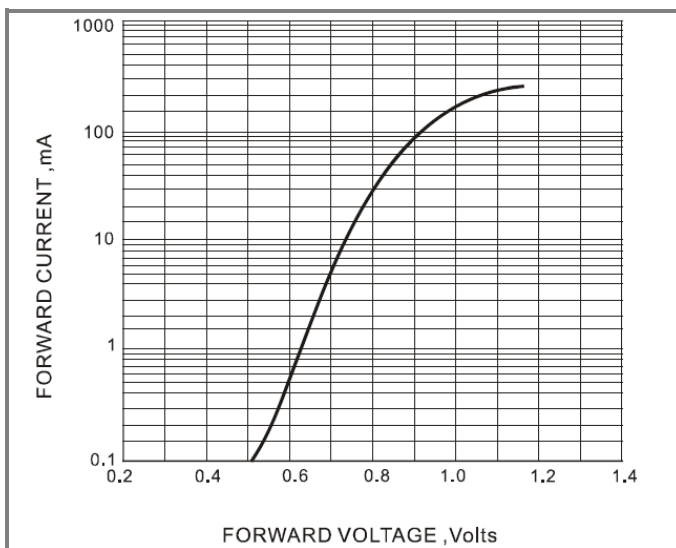


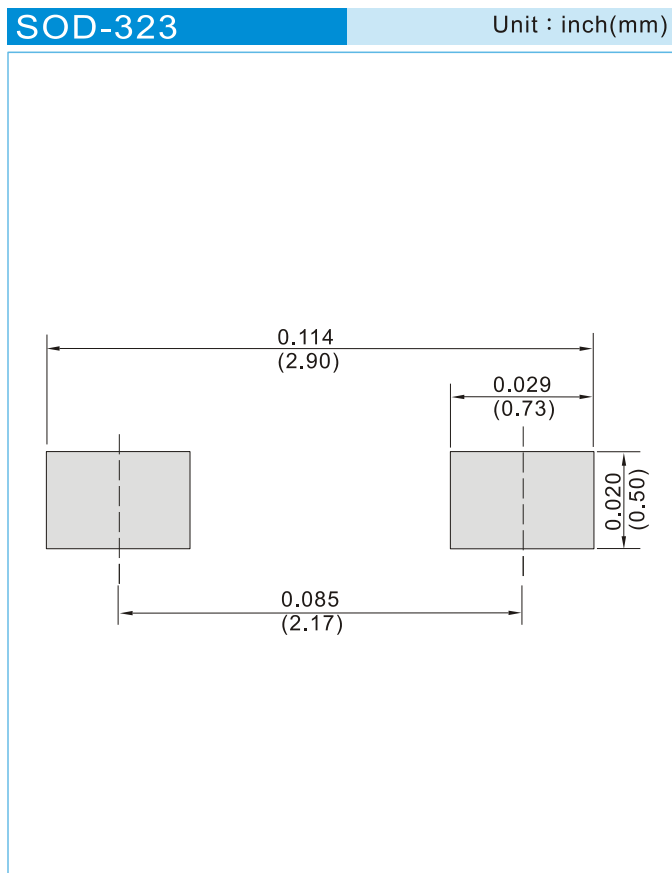
Fig.3 Typical Forward Characteristics

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Product and Packing Information

Part No.	Package Type	Packing Type	Marking
1N4148WS	SOD-323	5K pcs / 7" reel	A2
1N4148WS	SOD-323	12K pcs / 13" reel	A2

Mounting Pad Layout



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