



1N4148WS~BAV16WS

SURFACE MOUNT SWITCHING DIODES

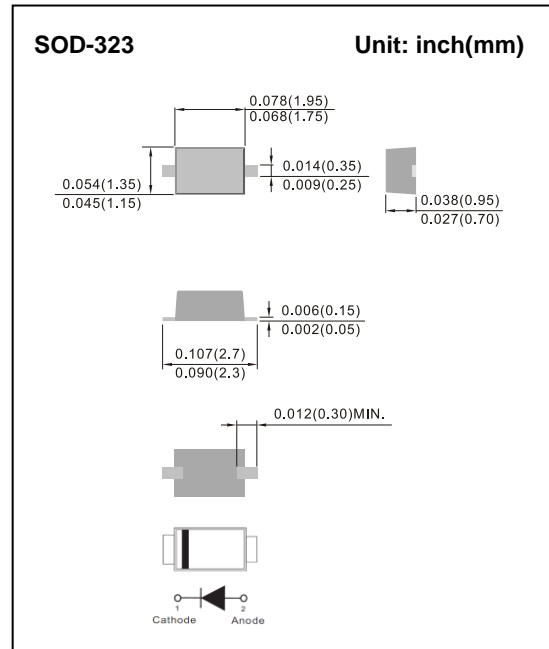
Voltage 100 V **Power** 250mW

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.



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TYPICAL CHARACTERISTIC CURVES

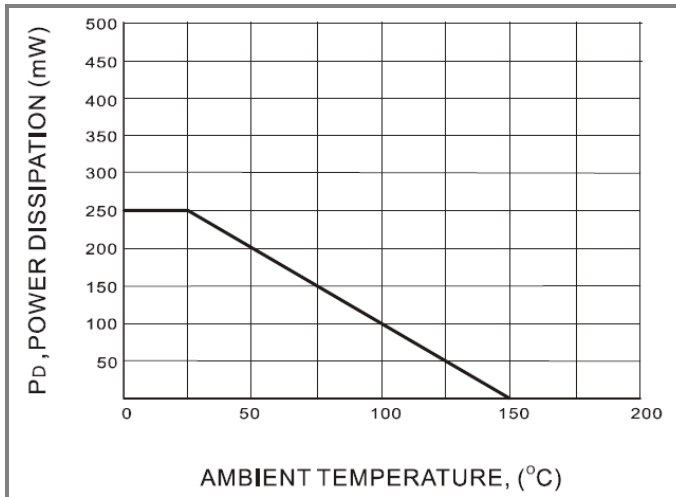


Fig.1 Power Derating Curve

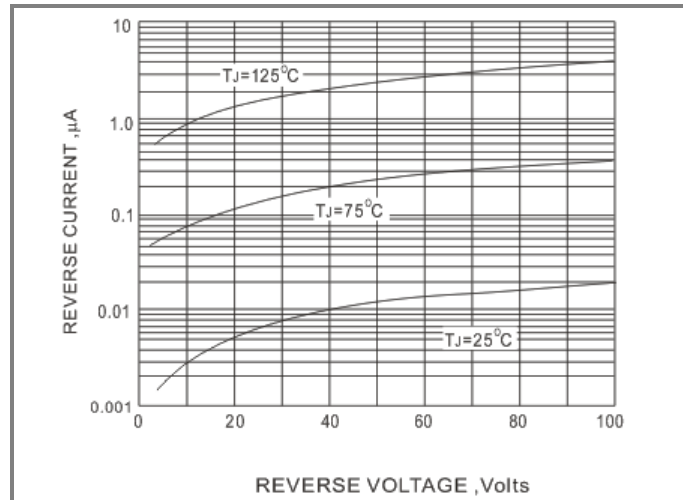


Fig.2 Typical Reverse Characteristics

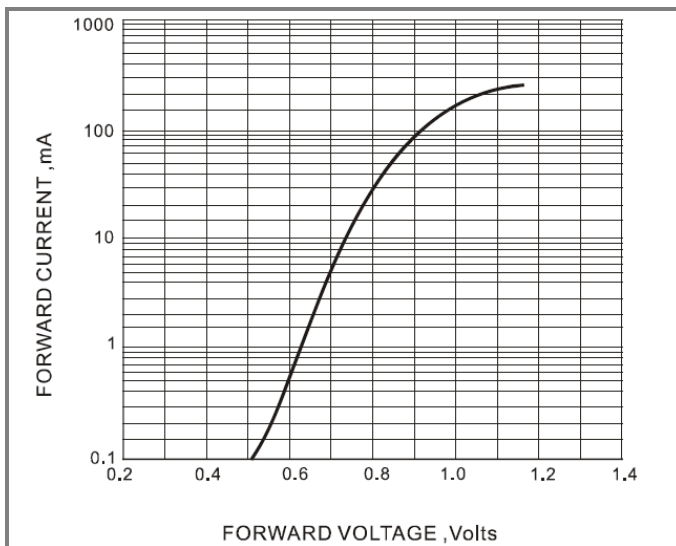


Fig.3 Typical forward Characteristics

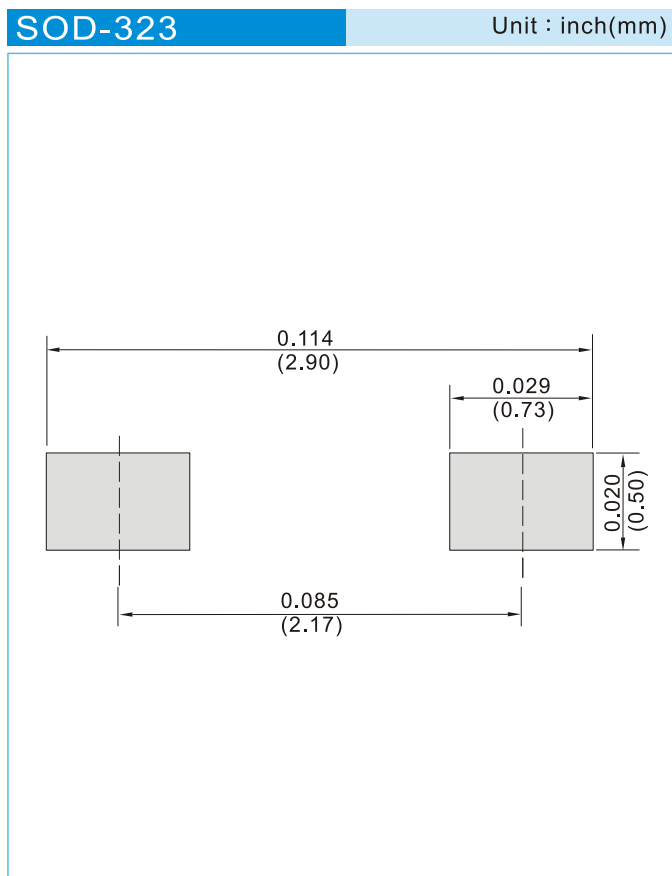


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Part No Packing Code Version

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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