



# 1N4148WS-AU SERIES

## SURFACE MOUNT SWITCHING DIODES

**VOLTAGE** 100 Volt **POWER** 250mWatt

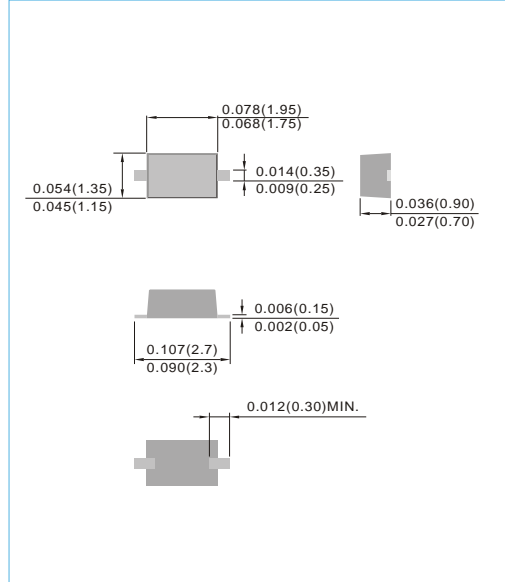
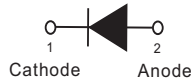
**SOD-323** Unit : inch(mm)

### FEATURES

- Fast switching speed.
- Surface mount package Ideally Suited for Automatic insertion
- Electrically Identical to Standard JEDEC
- High Conductance
- Acquire quality system certificate : TS16949
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### MECHANICAL DATA

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



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

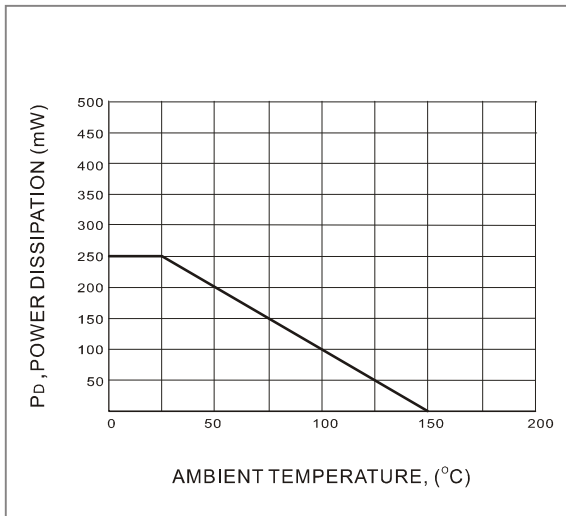
PARAMETER	SYMBOL	1N4148WS-AU	1N4448WS-AU	BAV16WS-AU	UNITS
Marking Code	-	A2	A3	A6	-
Reverse Voltage	$V_R$	75			V
Peak Reverse Voltage	$V_{RM}$	100			V
RMS Voltage	$V_{RMS}$	50			V
Maximum Average Forward Current at $T_A=25^\circ\text{C}$	$I_{F(AV)}$	200			mA
Peak Forward Surge Current	$I_{FSM}$	0.001ms 10ms 1s	4 1.5 0.5		A
Power Dissipation Derate Above 25°C	$P_D$	250			mW
Maximum Forward Voltage	$V_F$	0.715 @ 0.001A 0.855 @ 0.01A 1 @ 0.05A 1.25 @ 0.15A	0.72 @ 0.005A 1 @ 0.1A	0.715 @ 0.001A 0.855 @ 0.01A 1 @ 0.05A	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	0.025 @ 20V 2.5 @ 75V	2.5 @ 75V	1 @ 75V	$\mu\text{A}$
Junction Capacitance (Note 1)	$C_J$	1.5	4	2	pF
Maximum Reverse Recovery Time (Note 2)	$t_{rr}$	4	4	6	ns
Typical Thermal Resistance	$R_{\theta JA}$	500 650			$^\circ\text{C} / \text{W}$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150			$^\circ\text{C}$

Notes :

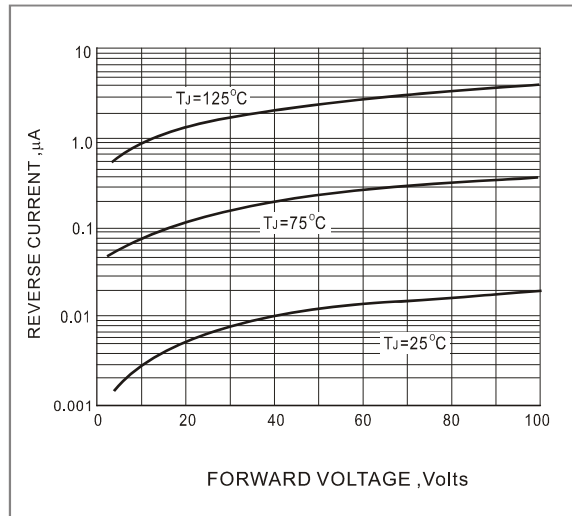
1.  $C_J$  at  $V_R=0$ ,  $f=1\text{MHz}$
2. From  $I_F=10\text{mA}$  to  $I_R=1\text{mA}$ ,  $V_R=6\text{Volts}$ ,  $R_L=100\Omega$
3. Mounted on a FR4, single-sided copper , with 50 x 15mm PCB
4. Mounted on a FR4, single-sided copper , with mini pad



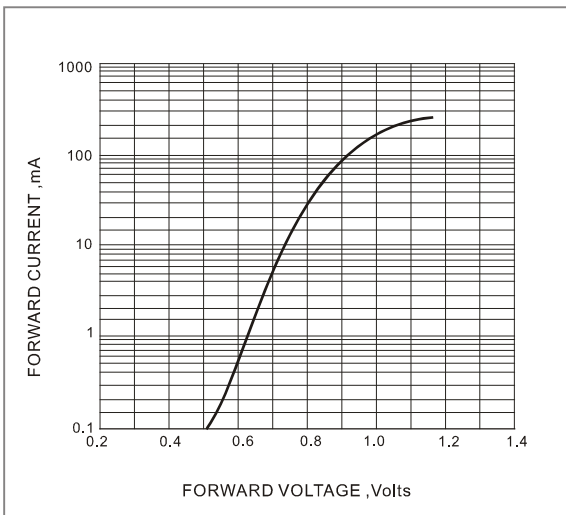
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**FIG. 1 POWER DERATING CURVE**



**FIG. 2-TYPICAL REVERSE CHARACTERISTICS**



**FIG. 3-TYPICAL FORWARD CHARACTERISTIC**

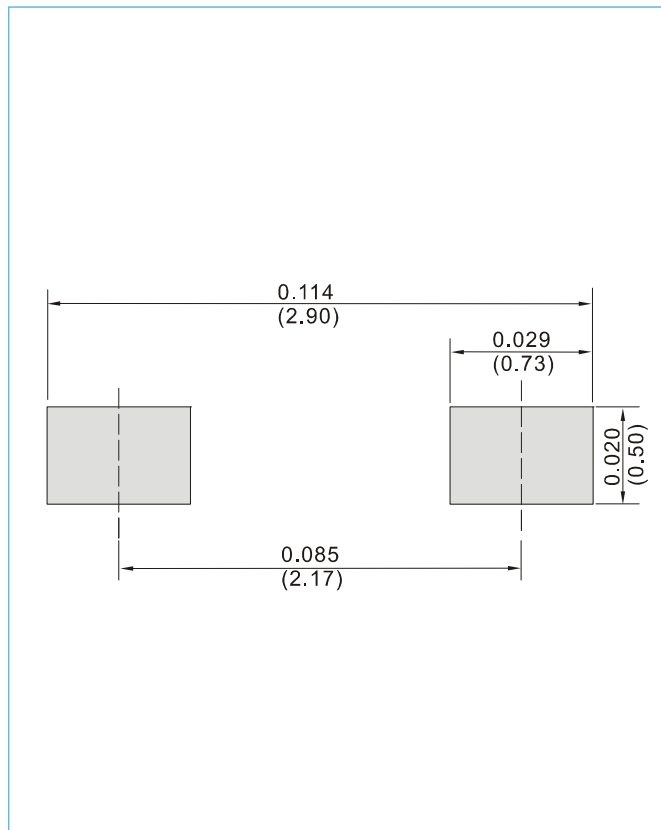


## 1N4148WS-AU SERIES

### MOUNTING PAD LAYOUT

SOD-323

Unit : inch(mm)



### ORDER INFORMATION

- Packing information  
T/R - 12K per 13" plastic Reel  
T/R - 5K per 7" plastic Reel



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### Part No\_packing code\_Version

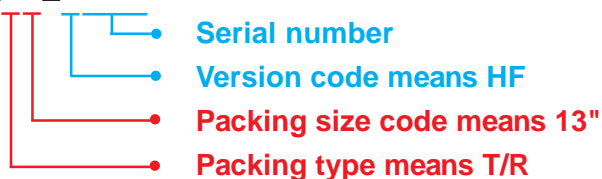
1N4148WS-AU\_R1\_000A1

1N4148WS-AU\_R2\_000A1

For example :

**RB500V-40\_R2\_00001**

Part No.



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	<b>A</b>	N/A	<b>0</b>	<b>HF</b>	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	<b>RoHS</b>	<b>1</b>	serial number
Bulk Packing (B/P)	<b>B</b>	13"	<b>2</b>			
Tube Packing (T/P)	<b>T</b>	26mm	<b>X</b>			
Tape and Reel (Right Oriented) (TRR)	<b>S</b>	52mm	<b>Y</b>			
Tape and Reel (Left Oriented) (TRL)	<b>L</b>	PANASERT T/B CATHODE UP (PBCU)	<b>U</b>			
FORMING	<b>F</b>	PANASERT T/B CATHODE DOWN (PBCD)	<b>D</b>			



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