

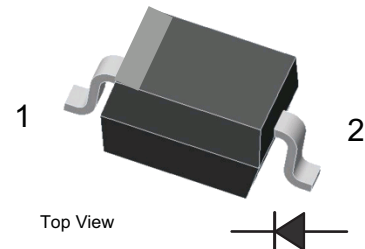
## Switching Diodes

## 1N4148WS

## ■ Features

- Fast Switching Speed
- For General Purpose Switching Applications.
- High Conductance
- Surface Mount Package Ideally Suited for Automatic Insertion

SOD-323



PIN DESCRIPTION

PIN	DESCRIPTION
1	Cathode
2	Anode

■ Absolute Maximum Ratings  $T_a = 25^\circ\text{C}$ 

Parameter	Symbol	Rating	Unit
Reverse Voltage	$V_{RM}$	100	V
Peak Repetitive Peak Reverse Voltage	$V_{RRM}$	100	
Working Peak Reverse Voltage	$V_{RWM}$		
DC Blocking Voltage	$V_R$		
RMS Reverse Voltage	$V_{R(RMS)}$	71	mA
Average Rectified Output Current	$I_o$	150	
Forward Continuous Current	$I_{FM}$	300	A
Peak Forward Surge Current @ $t=1\mu\text{s}$	$I_{FSM}$	2	
@ $t=1\text{s}$		1	
Power Dissipation	$P_d$	500	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	250	$^\circ\text{C}/\text{W}$
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage Temperature range	$T_{stg}$	-55 to 150	

■ Electrical Characteristics  $T_a = 25^\circ\text{C}$ 

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	$V_R$	$I_R = 100\mu\text{A}$	100			V
Forward voltage	$V_{F1}$	$I_F = 1\text{mA}$			0.715	
	$V_{F2}$	$I_F = 10\text{mA}$			0.855	
	$V_{F3}$	$I_F = 50\text{mA}$			1	
	$V_{F4}$	$I_F = 150\text{mA}$			1.25	
Reverse voltage leakage current	$I_{R1}$	$V_R = 75\text{V}$			1	$\mu\text{A}$
	$I_{R2}$	$V_R = 20\text{V}$			25	nA
Junction capacitance	$C_j$	$V_R = 0\text{V}, f = 1\text{MHz}$			2	pF
Reverse recovery time	$t_{rr}$	$I_F = I_R = 10\text{mA}, I_{rr} = 0.1 \times I_R, R_L = 100\Omega$			4	ns

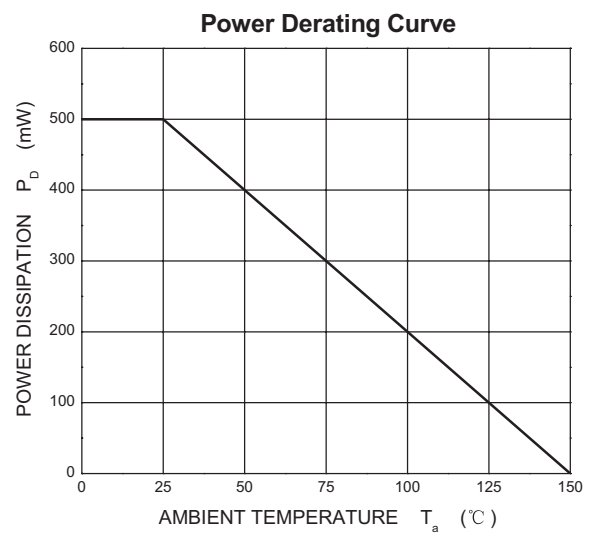
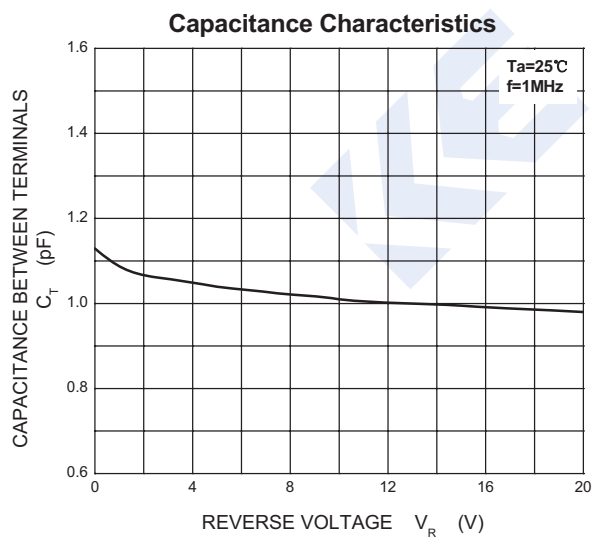
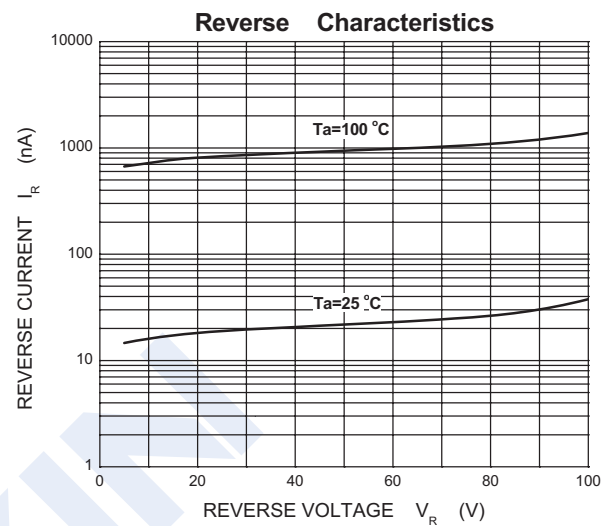
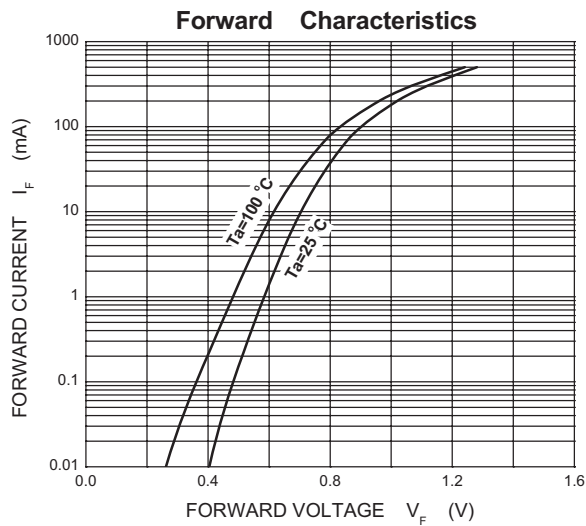
## ■ Marking

Marking	A
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## Switching Diodes

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## ■ Typical Characteristics



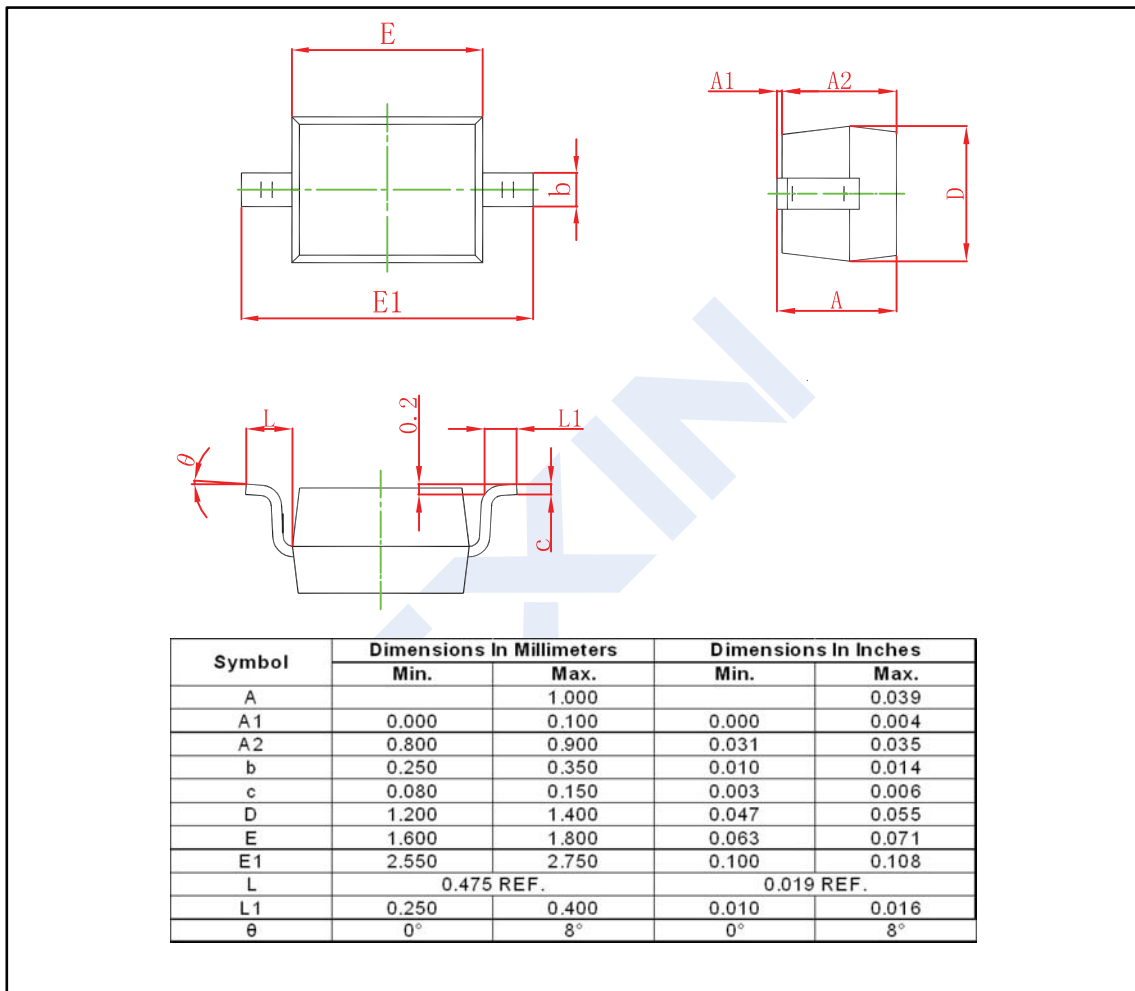
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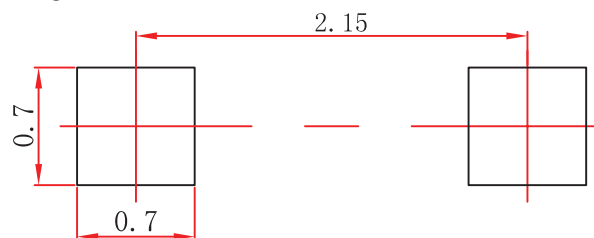
#### ■ Package Outline Dimensions

Plastic surface mounted package; 2 leads

SOD-323



#### ■ The Recommended Mounting Pad Size



#### Note:

1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05\text{mm}$ .
3. The pad layout is for reference purposes only.