

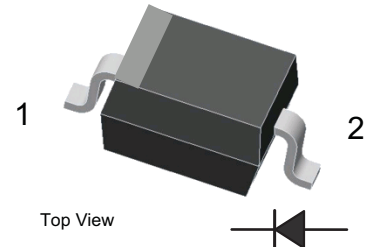
Switching Diodes

BAS316

■ 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	
Peak Forward Surge Current @ $t=1\mu\text{s}$	I_{FSM}	2	A
@ $t=1\text{s}$		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	μA
	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

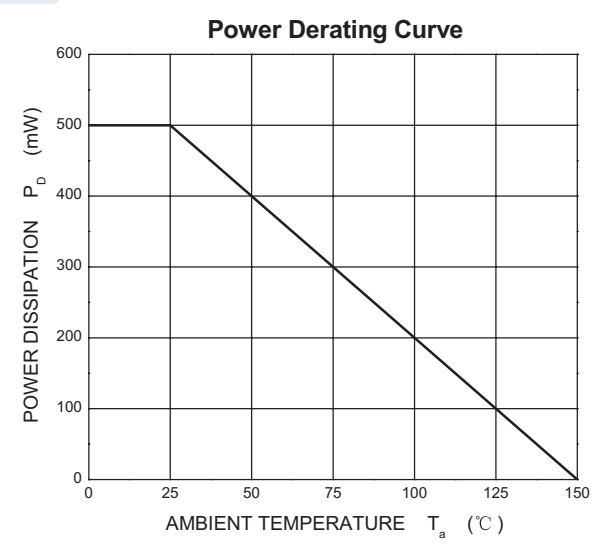
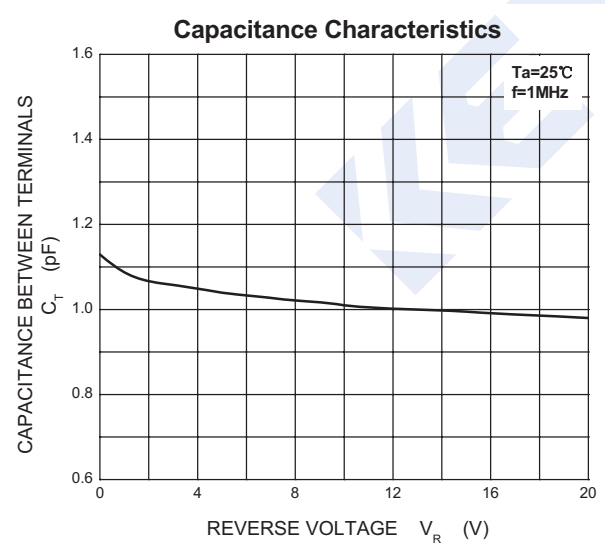
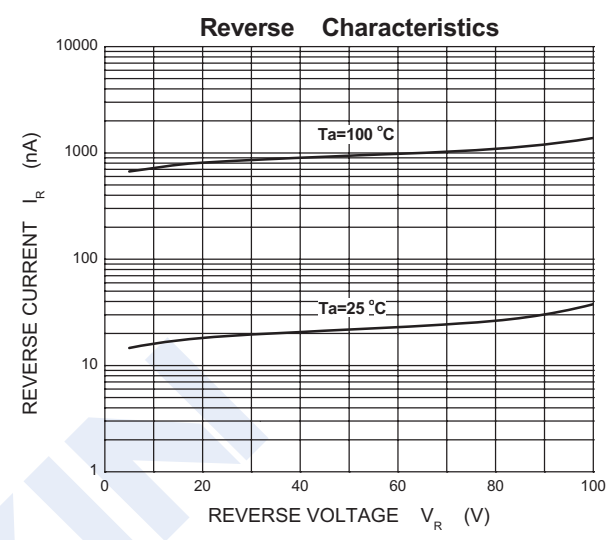
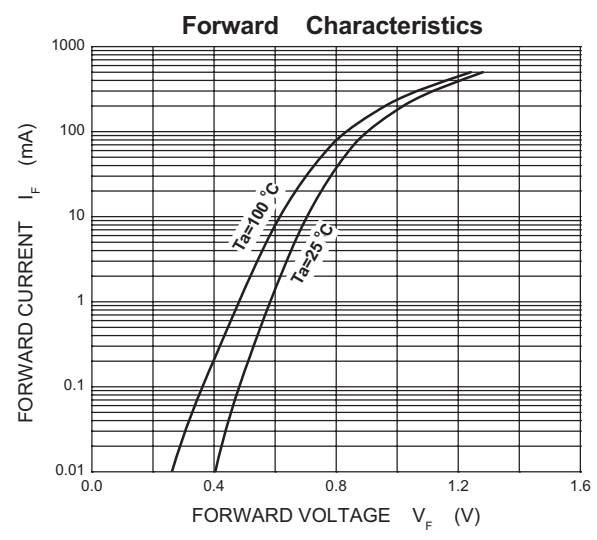
■ Marking

Marking	A
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Typical Characteristics



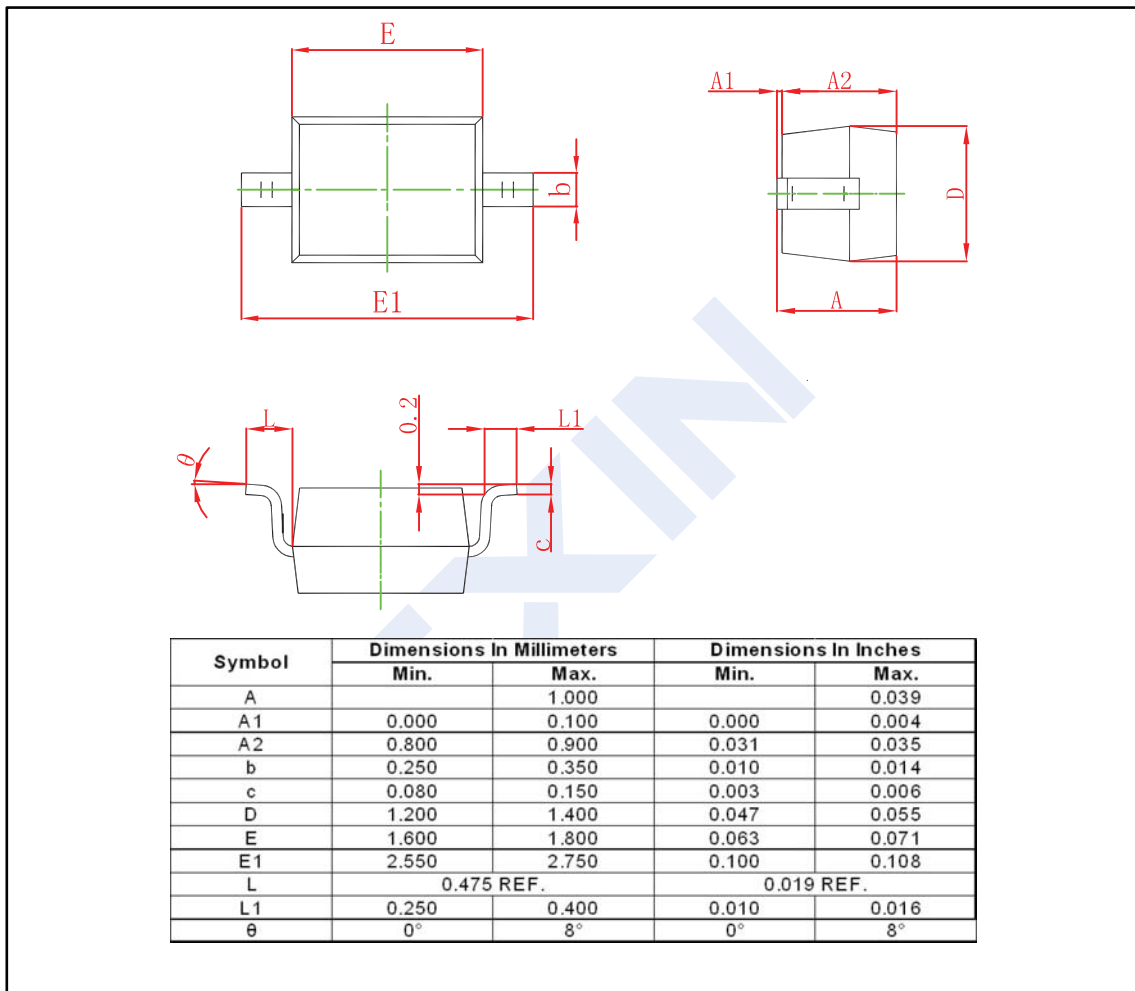
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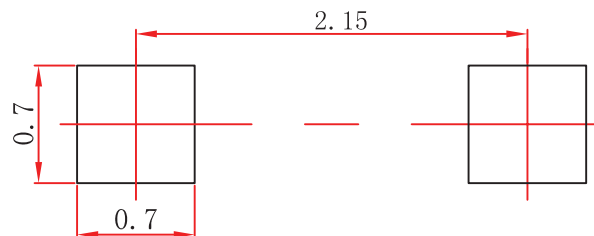
■ Package Outline Dimensions

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.