

## Surface Mount Switching Diode

**(Pb)** Lead(Pb)-Free

### Features:

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

### Mechanical Data:

- \*Case: SOD-323 Molded Plastic
- \*Terminals: Solderable Per MIL-STD-202, Method 208
- \*Polarity: See Equivalent Circuit Diagram
- \*Weight: 0.004grams(approx)

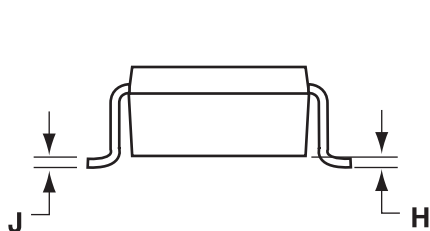
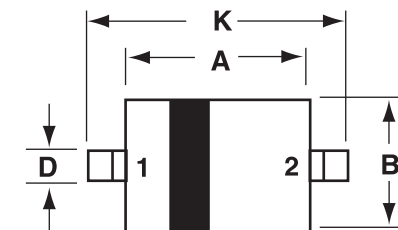
**SWITCHING DIODE  
200mAMPERS  
120-250VOLTS**



**SOD-323**

## SOD-323 Outline Demensions

Unit:mm



Dim	MILLMETERS	
	Min	Max
<b>A</b>	1.60	1.80
<b>B</b>	1.15	1.35
<b>C</b>	0.80	1.00
<b>D</b>	0.25	0.40
<b>E</b>	0.15 REF	
<b>H</b>	0.00	0.10
<b>J</b>	0.089	0.177
<b>K</b>	2.30	2.70

PIN 1.CATHODE  
2.ANODE

**Maximum Ratings** ( $T_A=25^{\circ}\text{C}$  Unless otherwise noted)

Characteristic	Symbol	BAS19H	BAS20H	BAS21H	Unit
Non-Repetitive Peak Reverse Voltage	VRRM	120	200	250	Volts
Working Peak Reverse Voltage DC Blocking Voltage	VRWM VR	100	150	200	Volts
RMS Reverse Voltage	VR(RMS)	71	106	140	V
Forward Continuous Current <sup>(1)</sup>	I <sub>FM</sub>	400			mA
Average Rectified Output Current <sup>(1)</sup>	I <sub>o</sub>	200			mA
Non-Repetitive Peak Forward Surge Current @t=1.0us @t=1.0s	I <sub>FSM</sub>	2.5 0.5			A
Power Dissipation	Pd	200			mW
Thermal Resistance Junction to Ambient Air <sup>(1)</sup>	R <sub>θJA</sub>	625			$^{\circ}\text{C}/\text{W}$
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>	-65 to +150			$^{\circ}\text{C}$

**Electrical Characteristics** ( $T_A=25^{\circ}\text{C}$  Unless otherwise noted)

Characteristic	Symbol	Min	Max	Unit
Forward Voltage I <sub>F</sub> =100mA I <sub>F</sub> =200mA	V <sub>F</sub>	-	1.0 1.25	Volts
Reverse Leakage @Rated DC Blocking Voltage	I <sub>R</sub>	-	100	nAdc
Total Capacitance (V <sub>R</sub> =1.0V, f=1.0MHz)	C <sub>j</sub>	-	5.0	Pf
Reverse Recovery Time I <sub>F</sub> =I <sub>R</sub> =30mA I <sub>rr</sub> =0.1*I <sub>R</sub> , RL=100 W	trr		50	nS

NOTE:

1. Valid provided that terminals are kept at ambient temperature.

**Device Marking**

Item	Marking	Equivalent Circuit diagram
BAS19H	JP, A8	
BAS20H	JR, T2	
BAS21H	JS, T3	

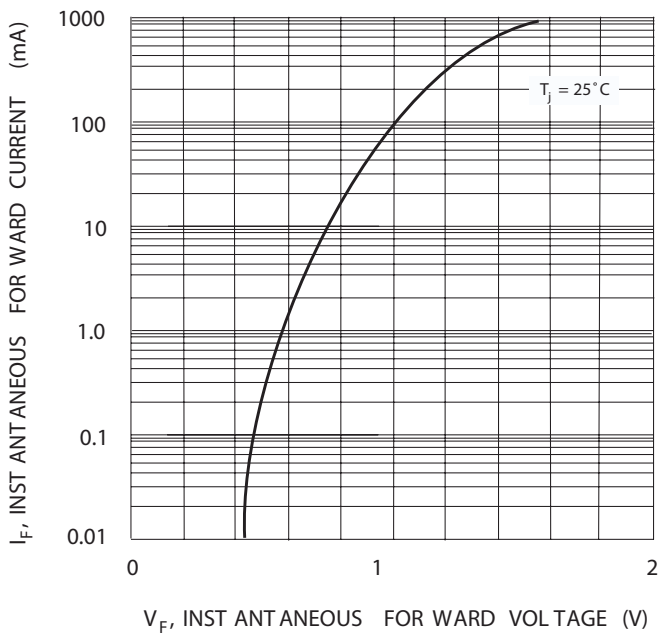


Fig. 1 Forward Characteristics

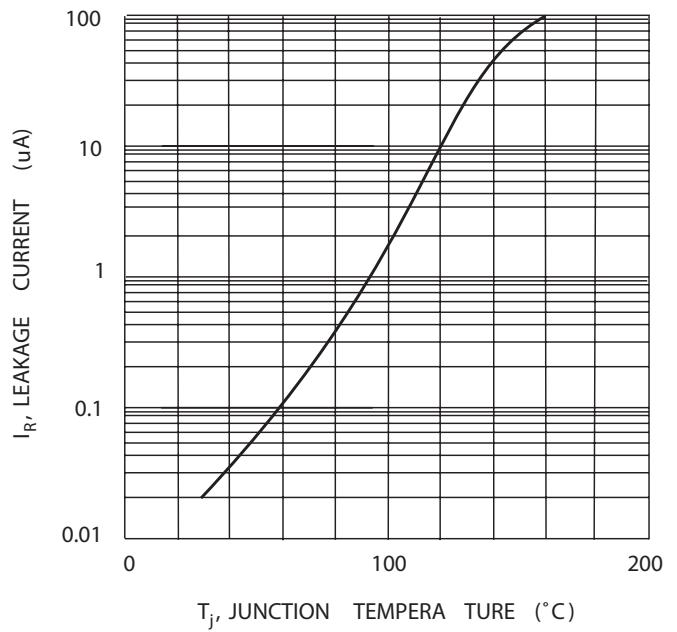


Fig. 2 Leakage Current vs Junction Temperature