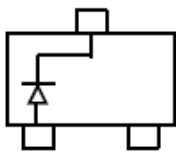
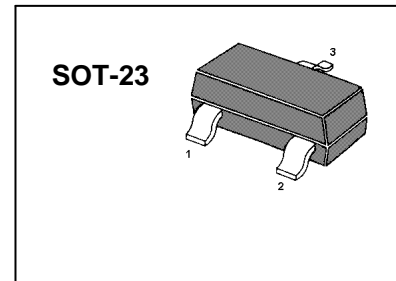




## SWITCHING DIODE

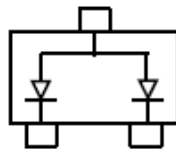
### FEATURES

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



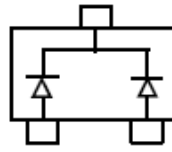
**BAS21**

Marking: JS



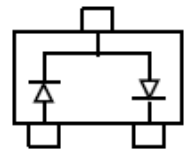
**BAS21A**

Marking: JS2



**BAS21C**

Marking: JS3



**BAS21S**

Marking: JS4

### Maximum Ratings @ $T_A=25^\circ\text{C}$

Parameter	Symbol	Limits	Unit
Repetitive peak reverse voltage	$V_{RRM}$	250	V
Working Peak reverse voltage	$V_{RWM}$		
DC Blocking Voltage	$V_R$		
Forward Continuous Current	$I_{FM}$	400	mA
Average Rectified Output Current	$I_O$	200	mA
Non-Repetitive Peak Forward Surge Current	$I_{FSM}$	@ $t = 1.0\mu\text{s}$ 2.5	A
		@ $t = 1.0\text{s}$ 0.5	
Repetitive Peak Forward Surge Current	$I_{FRM}$	625	mA
Power Dissipation	$P_D$	225	mW
Thermal Resistance. Junction to Ambient Air	$R_{\theta JA}$	556	$^\circ\text{C}/\text{W}$
Junction temperature	$T_J$	150	$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-65-150	$^\circ\text{C}$

### ELECTRICAL CHARACTERISTICS ( $T_{amb}=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Reverse breakdown voltage	$V_{(BR)}$	$I_R = 100\mu\text{A}$	250		V
Reverse voltage leakage current	$I_R$	$V_R = 200\text{V}$		1	$\mu\text{A}$
Forward voltage	$V_F$	$I_F = 100\text{mA}$ $I_F = 200\text{mA}$		1000 1250	mV
Diode capacitance	$C_D$	$V_R = 0\text{V}$ , $f = 1\text{MHz}$		5	pF
Reverses recovery time	$t_{rr}$	$I_F = I_R = 30\text{mA}$ , $I_{rr} = 0.1 \times I_R$ , $R_L = 100\Omega$		50	nS

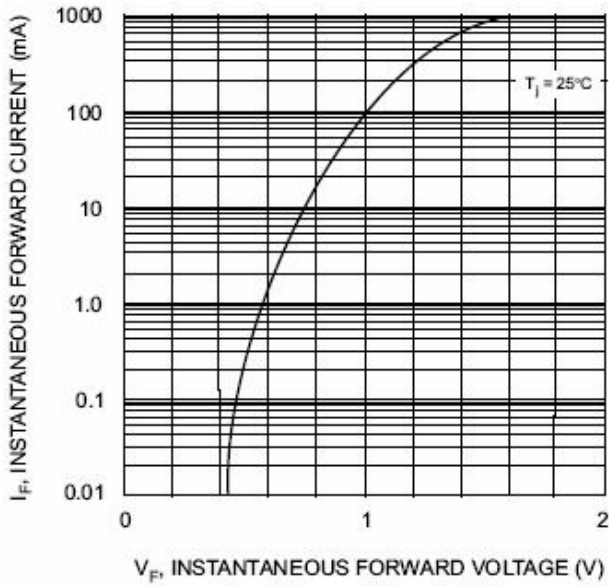


Fig. 1 Forward Characteristics

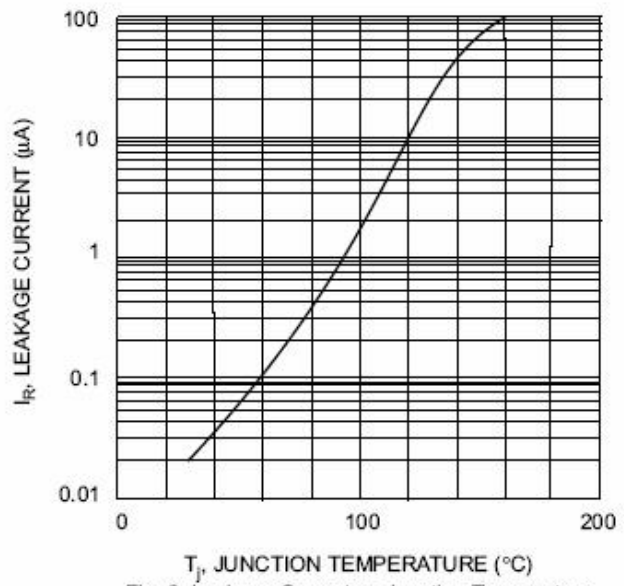


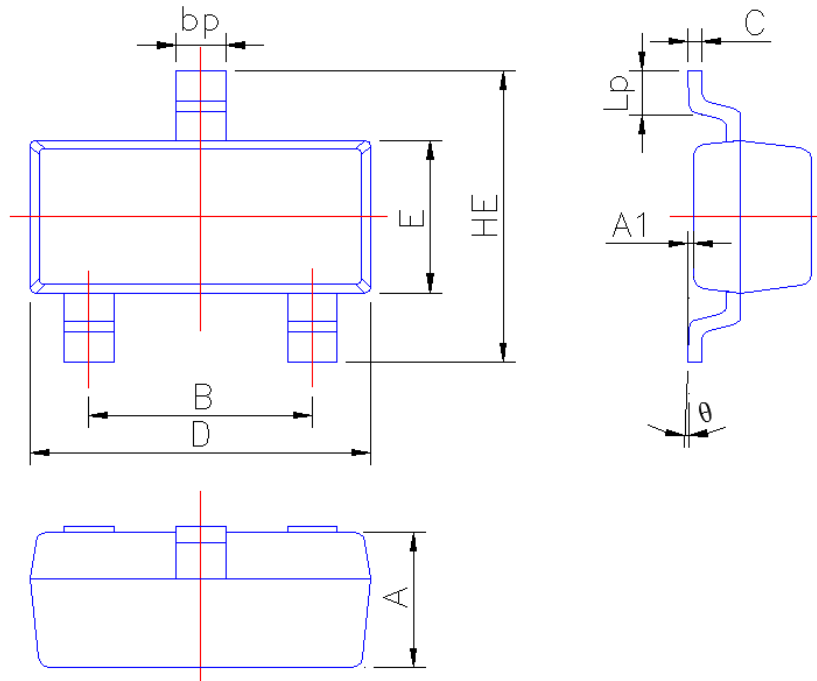
Fig. 2 Leakage Current vs Junction Temperature



## PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23



Symbol	Dimension in Millimeters	
	Min	Max
A	0.90	1.10
A1	0.013	0.100
B	1.80	2.00
bp	0.35	0.50
C	0.09	0.150
D	2.80	3.00
E	1.20	1.40
HE	2.20	2.80
Lp	0.20	0.50
$\theta$	0°	5°