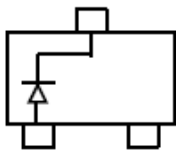
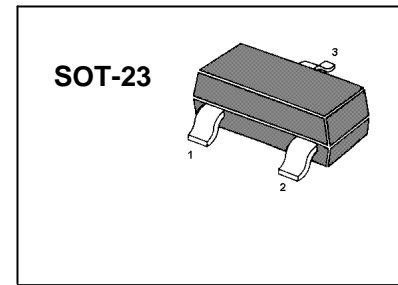


# BAS21 ... SWITCHING DIODE

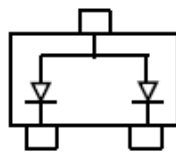
## FEATURES

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



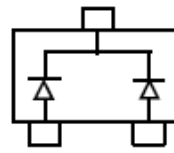
**BAS21**

Marking: JS



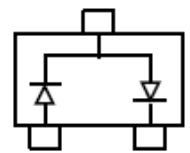
**BAS21A**

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	$V_F$	$I_F = 100\text{mA}$		1000	mV
		$I_F = 200\text{mA}$		1250	
Diode capacitance	$C_D$	$V_R = 0\text{V}, f = 1\text{MHz}$		5	pF
Reveres recovery time	$t_{rr}$	$I_F = I_R = 30\text{mA}, I_{rr} = 0.1 \times I_R, R_L = 100\Omega$		50	nS

## Typical Characteristics

## BAS21/A/C/S

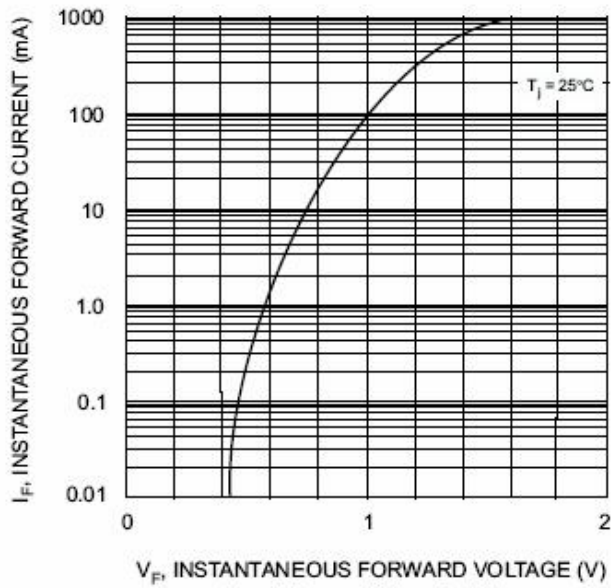


Fig. 1 Forward Characteristics

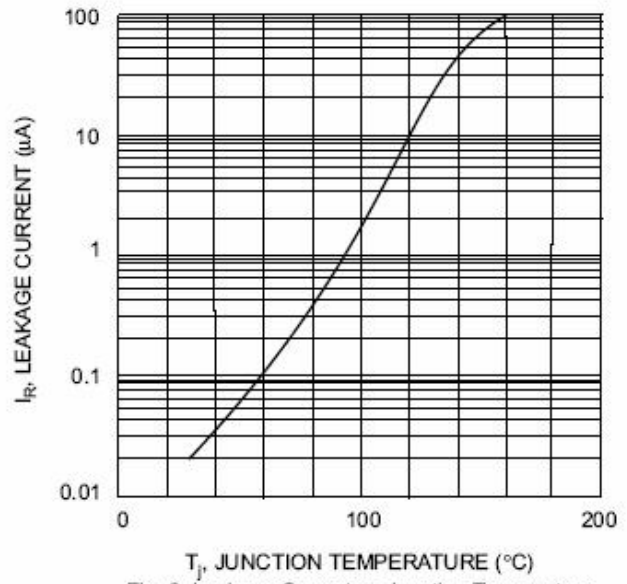
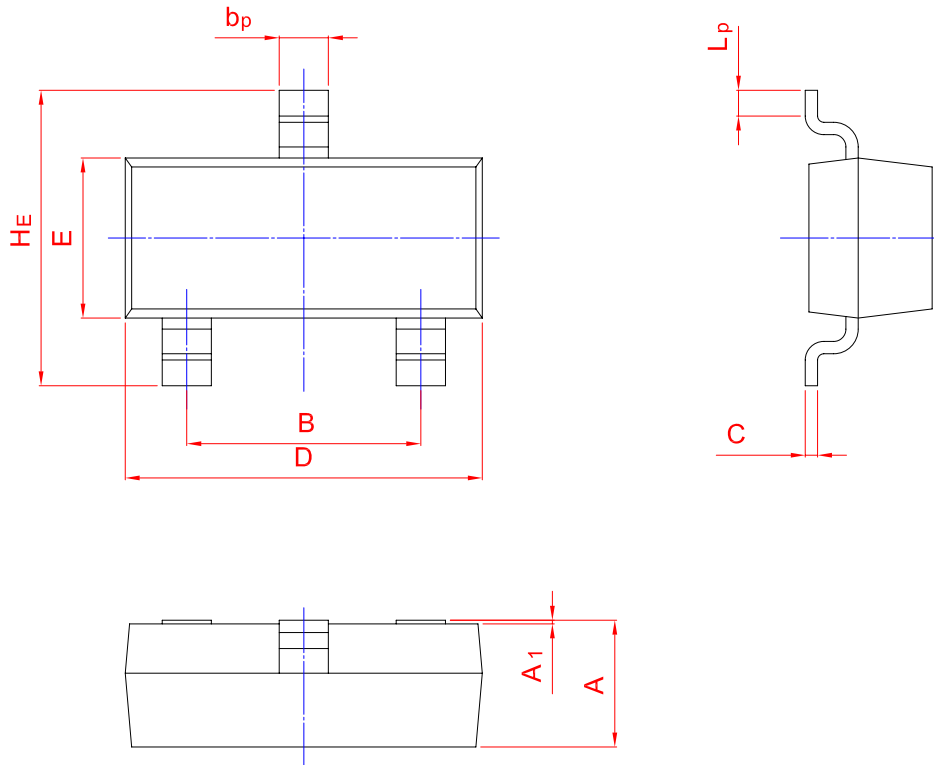
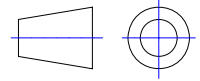


Fig. 2 Leakage Current vs Junction Temperature

# PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23



UNIT	A	B	bp	C	D	E	Hε	A1	Lp
mm	1.40	2.04	0.50	0.19	3.10	1.65	3.00	0.100	0.50
	0.95	1.78	0.35	0.08	2.70	1.20	2.20	0.013	0.20