

**SOT-23**
**RoHS**  
COMPLIANT

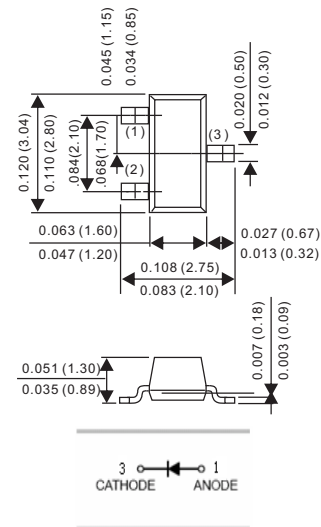
**Pb**  
Pb-Free

## FEATURES

- Fast switching speed
- Surface mount package ideally suited for automatic insertion
- For general purpose switching applications
- High conductance

## APPLICATIONS

- High speed switching application



Dimensions in inches and (millimeters)

## ORDERING INFORMATION

Type No.	Marking	Package Code
BAS19	JP	SOT-23
BAS20	JR	SOT-23
BAS21	JS	SOT-23

## MAXIMUM RATING @ Ta=25°C unless otherwise specified

Characteristic	Symbol	BAS19	BAS20	BAS21	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$	120	200	250	V
Working Peak Reverse Voltage DC Reverse Voltage	$V_{RWM}$ $V_R$	100	150	200	V
RMS Reverse Voltage	$V_{R(RMS)}$	71	106	141	V
Average rectified output Current	$I_O$	200			mA
Non-Repetitive Peak Forward Surge Current	$I_{FSM}$				A
@t=1.0μs					
@t=1.0s	0.5				
Repetitive Peak Forward Surge Current	$I_{FRM}$	625			
Power Dissipation	$P_D$	250			mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	500			°C/W
Operating Junction Temperature Range	$T_J$	150			°C
Storage Temperature Range	$T_{STG}$	-65 to +150			°C

**ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**

Characteristic	Symbol	Min	MAX	UNIT	Test Condition
Reverse breakdown voltage	BAS19 BAS20 BAS21	120 200 250		V	$I_R=100\mu A$
Forward Voltage	$V_F$	-	1.0 1.25	V	$I_F=100mA$ $I_F=200mA$
Reverse Leakage Current	BAS19 BAS20 BAS21	-	0.1 15 0.1 15 0.1 15	$\mu A$	$V_R=100V$ $V_R=100V, T_j=100^\circ C$ $V_R=150V$ $V_R=150V, T_j=100^\circ C$ $V_R=200V$ $V_R=200V, T_j=100^\circ C$
Junction Capacitance	$C_j$	-	5.0	pF	$V_R=0V, f=1.0MHz$
Reverse Recovery Time	$t_{rr}$	-	50	ns	$I_F=I_R=30mA, t_{rr}=0.1 \cdot I_R$

**TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**
