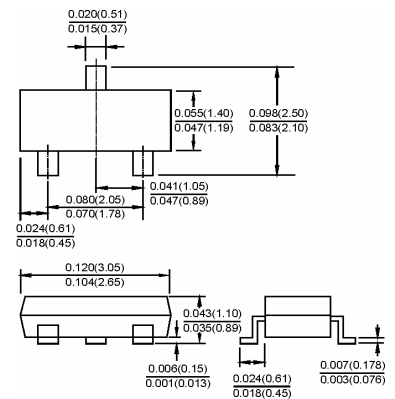


### SOT-23



Dimensions in inches and (millimeters)

## Features

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

Marking: **BAS19 JP**  
**BAS20 JR**

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

Parameter	Symbol	BAS19	BAS20	Unit
Non-Repetitive Peak reverse voltage	$V_{RM}$	100	150	V
DC Blocking Voltage	$V_R$			
Average Rectified Output Current	$I_O$	200		mA
Power Dissipation	$P_d$	250		mW
Thermal Resistance. Junction to Ambient Air	$R_{\theta JA}$	500		$^\circ\text{C}/\text{W}$
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	$V_{(BR)R}$	$I_R=100\mu\text{A}$	100		V
Reverse voltage leakage current	$I_R$	$V_R=100\text{V}$ $V_R=150\text{V}$		0.1	$\mu\text{A}$
Forward voltage	$V_F$	$I_F=100\text{mA}$ $I_F=200\text{mA}$		1 1.25	V
Junction Capacitance	$C_J$	$V_R=0\text{V}$ , $f=1\text{MHz}$		5	pF
Reveres recovery time	$t_{rr}$	$I_F=I_R=30\text{mA}$ , $I_{rr}=0.1 \times I_R$		50	nS

## Typical Characteristics

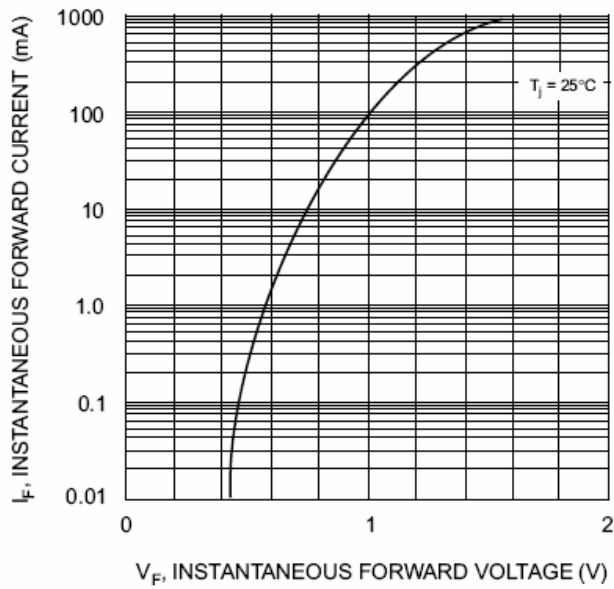


Fig. 1 Forward Characteristics

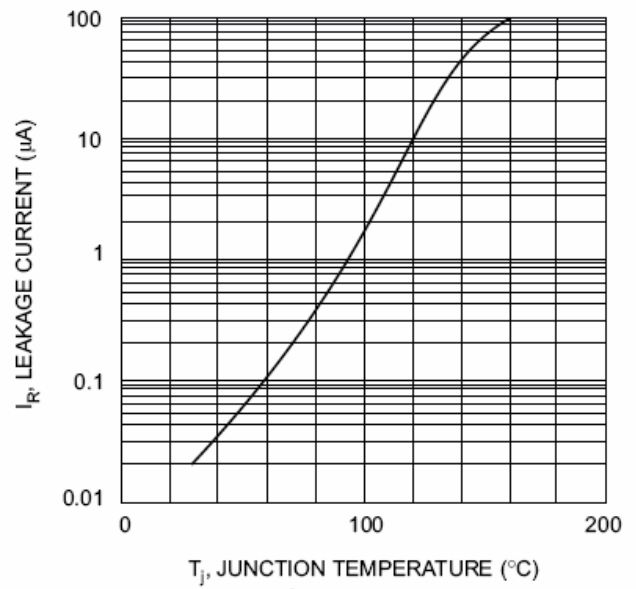


Fig. 2 Leakage Current vs Junction Temperature