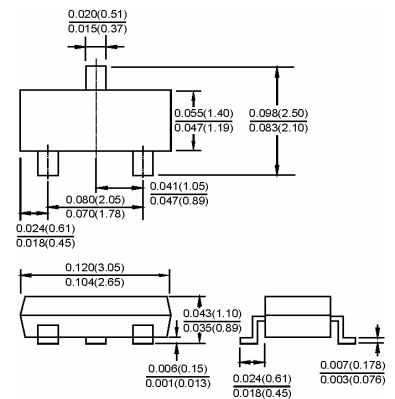


SOT-23



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	μA
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
Reverse recovery time	t_{rr}	$I_F=I_R=30\text{mA}, I_{rr}=0.1 \times I_R$		50	nS

Typical Characteristics

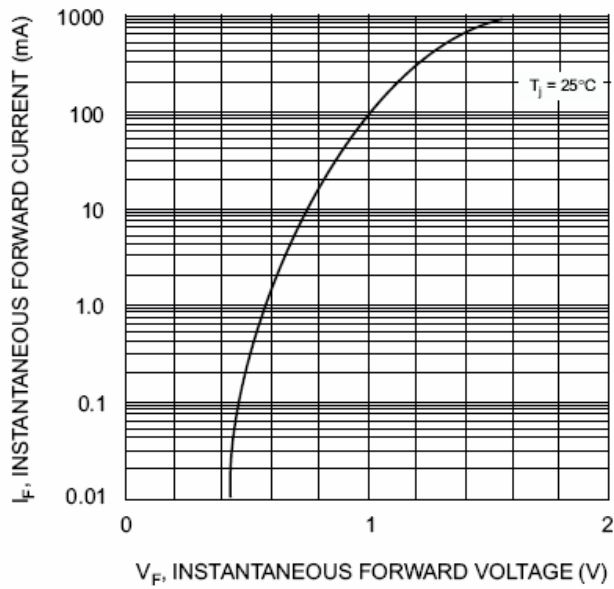


Fig. 1 Forward Characteristics

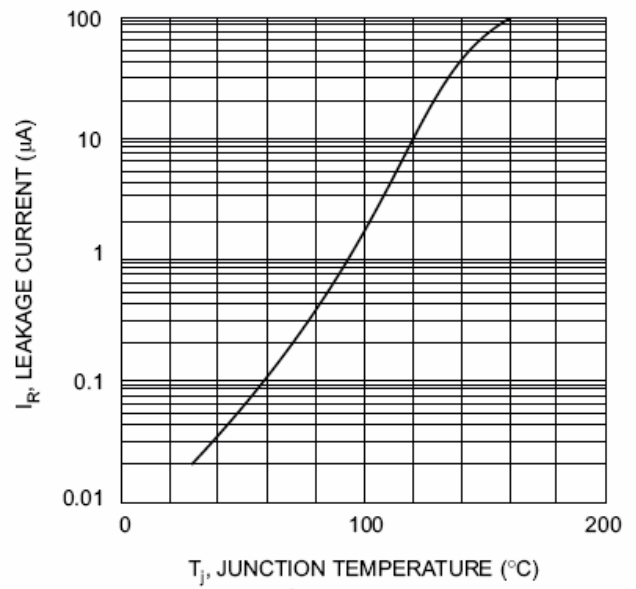


Fig. 2 Leakage Current vs Junction Temperature