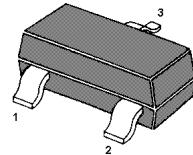


# BAS20 SWITCHING DIODE

## FEATURES

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

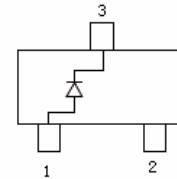
**SOT-23**



**Marking: JR**

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

Parameter	Symbol	Limits	Unit
Non-Repetitive Peak reverse voltage	$V_{RM}$		
DC Blocking Voltage	$V_R$	150	V
Average Rectified Output Current	$I_O$	200	mA
Power Dissipation	$P_D$	250	mW
Thermal Resistance. Junction to Ambient Air	$R_{\theta JA}$	500	°C/W
Junction temperature	$T_J$	150	°C
Storage temperature range	$T_{STG}$	-65-150	°C



## ELECTRICAL CHARACTERISTICS (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Reverse breakdown voltage	$V_{(BR) R}$	$I_R = 100\mu\text{A}$	150		V
Reverse voltage leakage current	$I_R$	$V_R = 150\text{V}$		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

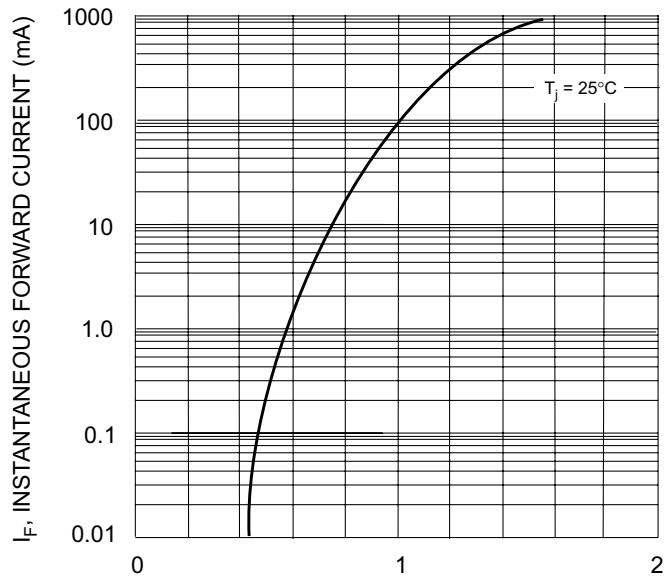
V<sub>F</sub>, INSTANTANEOUS FORWARD VOLTAGE (V)

Fig. 1 Forward Characteristics

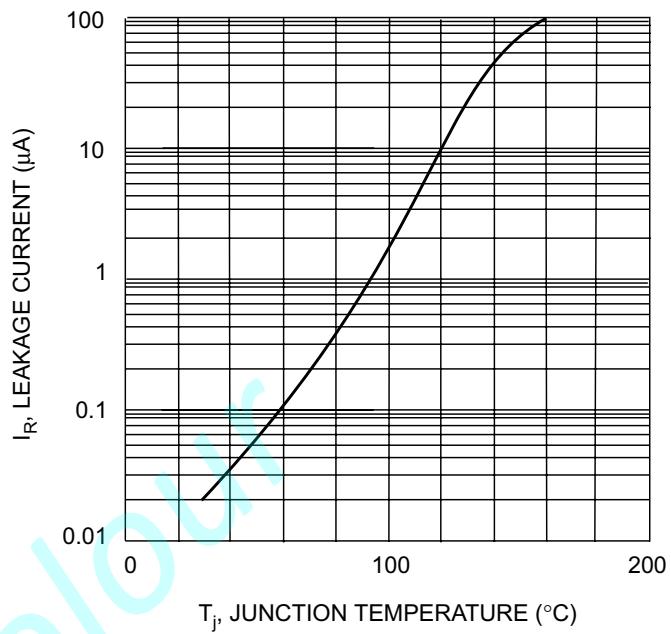
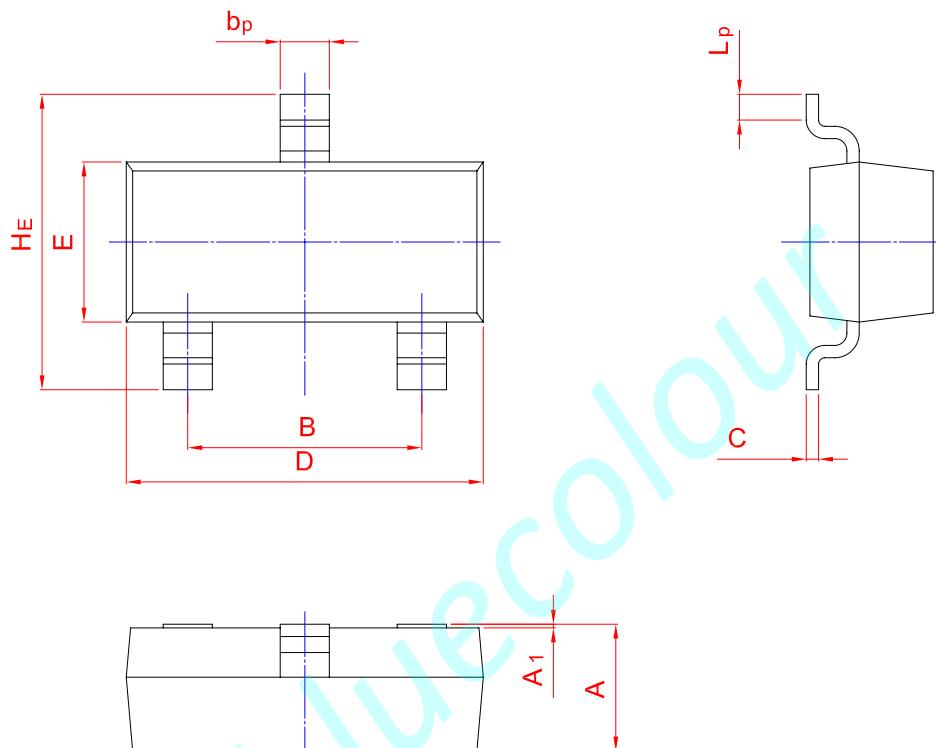
T<sub>j</sub>, JUNCTION TEMPERATURE ( $^\circ\text{C}$ )

Fig. 2 Leakage Current vs Junction Temperature

## PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23



UNIT	A	B	b <sub>p</sub>	C	D	E	H <sub>E</sub>	A <sub>1</sub>	L <sub>p</sub>
mm	1.40 0.95	2.04 1.78	0.50 0.35	0.19 0.08	3.10 2.70	1.65 1.20	3.00 2.20	0.100 0.013	0.50 0.20