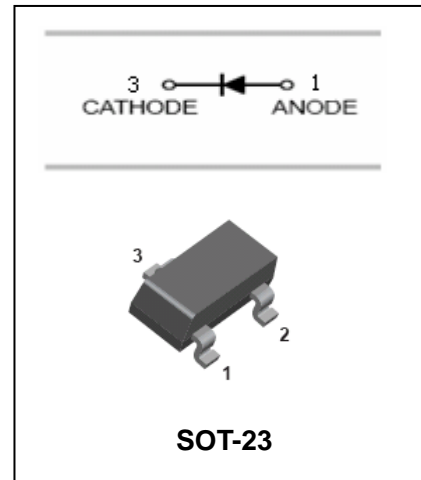


Surface mount switching diode

BAS19/20/21

FEATURES

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



APPLICATIONS

- High speed switching application.

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	V_{RWM}	100	150	200	V
DC Reverse Voltage	V_R				
RMS Reverse Voltage	$V_{R(RMS)}$	71	106	141	V
Forward Continuous Current (max.)	I_{FM}	400			mA
Average rectified output Current	I_O	200			mA
Non-Repetitive Peak Forward Surge Current	I_{FSM}	2.5 0.5			A
@t=1.0μs					
@t=1.0s					
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

Surface mount switching diode

BAS19/20/21

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Characteristic	Symbol	Min	MAX	UNIT	Test Condition
Reverse breakdown voltage	BAS19 BAS20 BAS21	100 150 200		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	-	100	nA	$V_R=100V$ $V_R=150V$ $V_R=200V$
Junction Capacitance	C_j	-	5.0	pF	$V_R=0V, f=1.0MHz$
Reverse Recovery Time	t_{rr}	-	50	ns	$I_F=I_R=30mA, I_r=0.1 \cdot I_R$

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

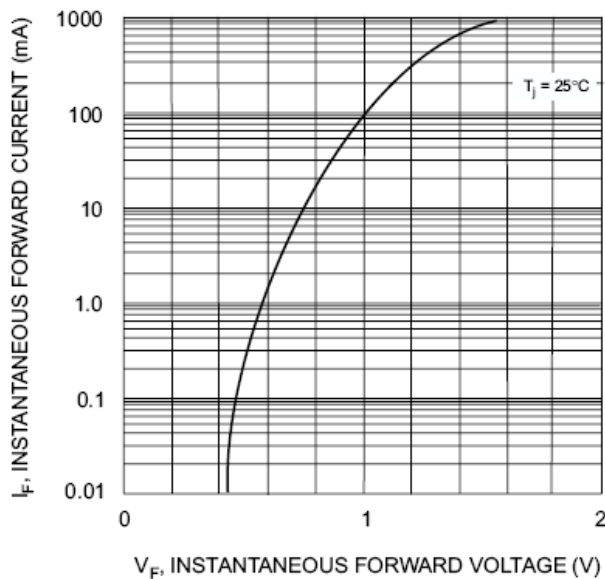


Fig. 1 Forward Characteristics

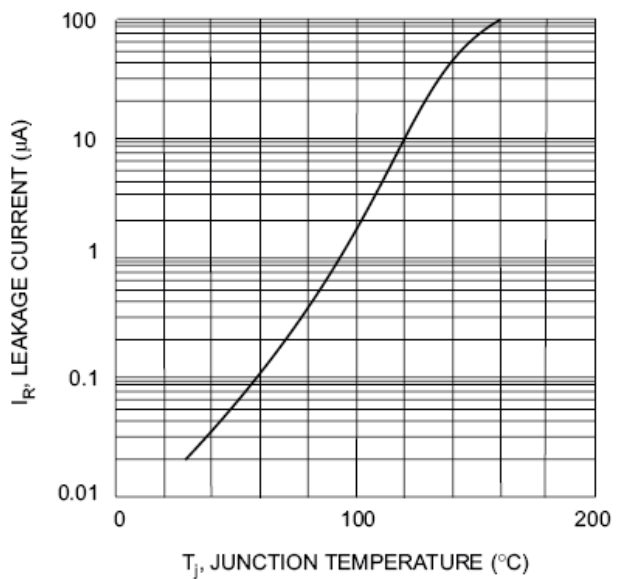


Fig. 2 Leakage Current vs Junction Temperature

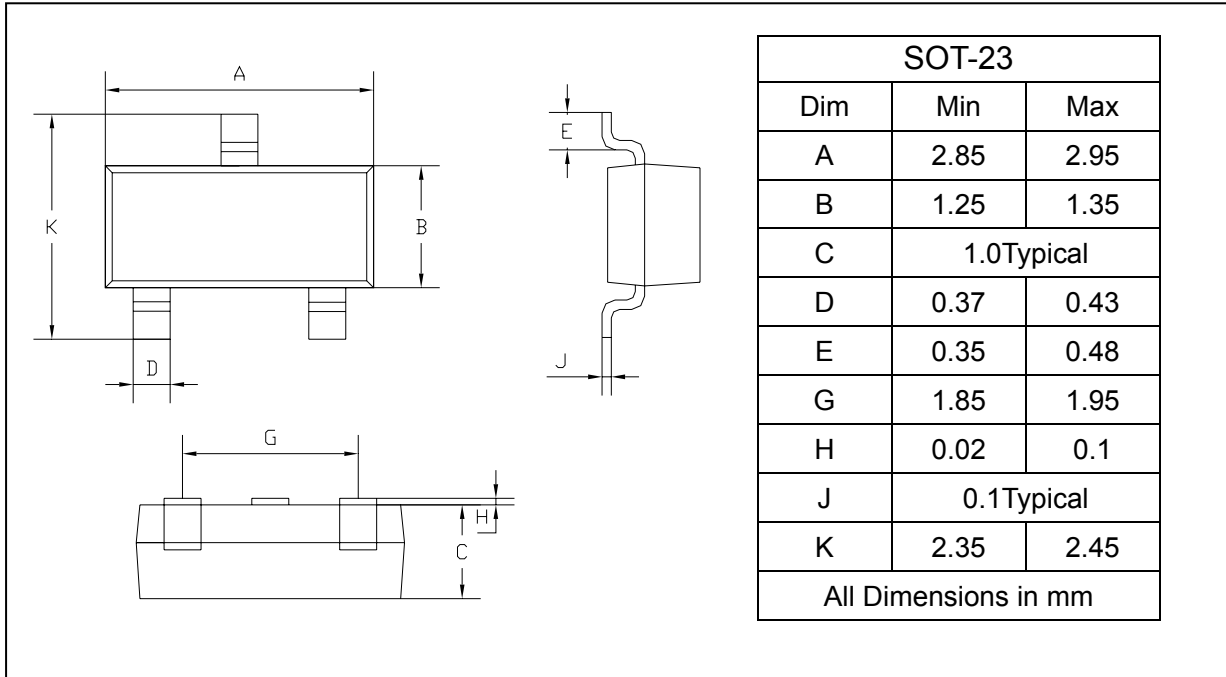
Surface mount switching diode

BAS19/20/21

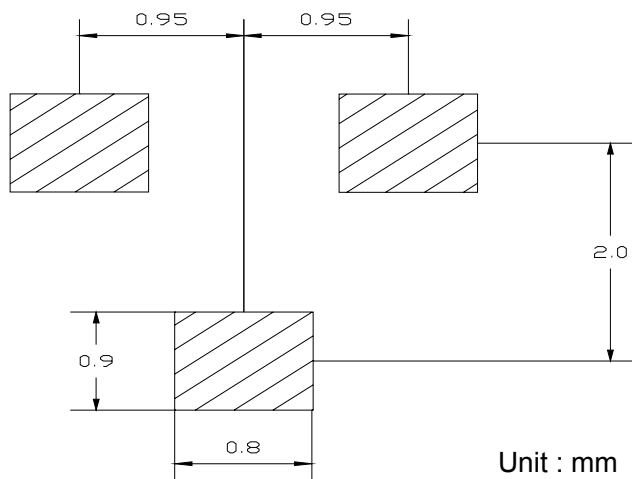
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
BAS19/20/21	SOT-23	3000/Tape&Reel