GOOD-ARK
SEMICONDUCTOR

BAS21
Switching Diode

Features

- Switching Speed: Max. 50ns
- General Applications
- Repetitive Peak Forward Current: Max. 625 mA.
- Lead Free By Design

SOT-23

Descrtion

The BAS21 is a general purpose diode fabricated in planar technology and encapsulated in a small SOT-23 plastic SMD package.

Applications

- General Purpose Switching

Absolute Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter		Symbol	Limits	UNIT
Repetitive Peak Reverse Voltage		V_{RRM}	250	V
Working Peak Reverse Voltage		V_{RWM}		
DC Blocking Voltage		V_R		
Forward Continuous Current		I_F	0.4	A
Average Rectified Output Current		Io	0.2	A
Non-Repetitive Peak forward Surge Current	@t=1.0us	I_{FSM}	2.5	A
	@ t=1.0s		0.5	
Repetitive Peak Forward Surge Current		I_{FRM}	0.625	A
Power Dissipation		P_d	225	mW
Thermal Resistance from Junction to Ambient		$R_{\theta JA}$	556	°C /W
Junction Temperature		T_J	150	°C
Storage Temperature Range		T_J, T_{STG}	-65 to +150	°C

Electrical Characteristics (T_A=25°C unless otherwise noted)

Parameter	Symbol	Conditions	Min.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)}$	I_R=100uA	250		V
Reverse Voltage Leakage Current	I_R	V_R=200V		1	uA
Forward Voltage	V_{FM}	I_F=100mA		1	V
		I_F=200mA		1.25	
Diode Capacitance	C_D	V_R=0V, f=1MHz		5	pF
Reverse Recovery Time	T_{RR}	I_F=I_R=30mA, I_{RR}=0.1*I_R.R_L=100 Ω		50	nS

Typical Electrical Characteristic Curves

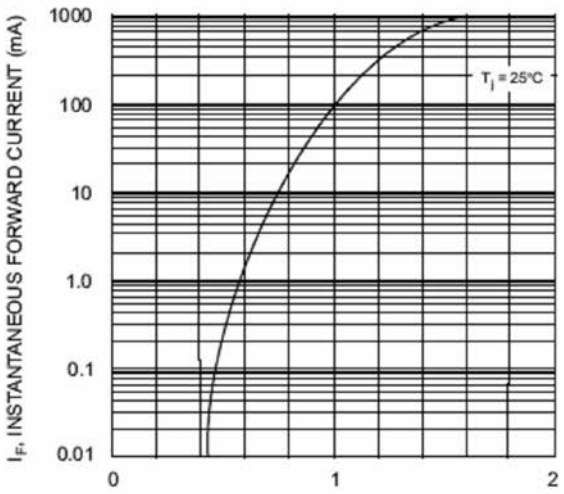


Fig. 1 Forward Characteristics

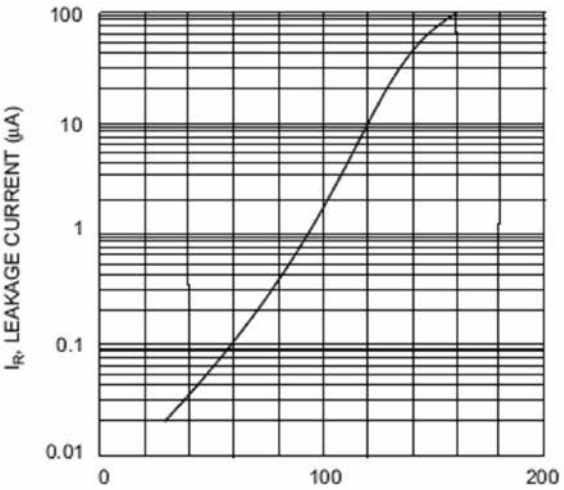
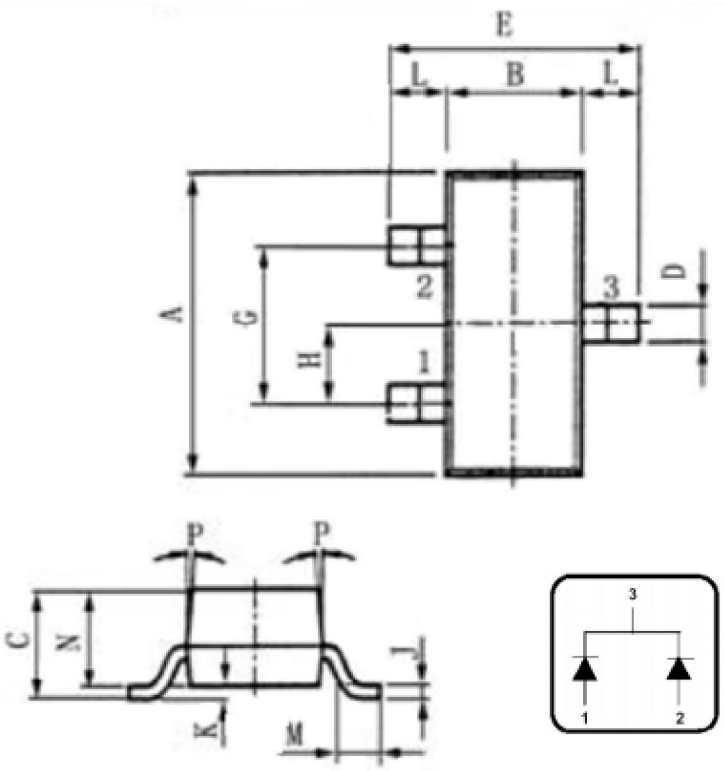


Fig. 2 Leakage Current vs Junction Temperature

Package Outline Dimensions SOT-23 (in mm)



	SOT- 23
A	2.9±0.02
B	1.30+0.20/-0.15
C	1.30MAX
D	0.40+0.15/-0.05
E	2.40+0.30/-0.20
G	1.9±0.2
H	0.95±0.1
J	0.10+0.10/-0.05
K	0.00-0.10
L	0.55±0.1
M	0.2MIN
N	1.00+0.20/-0.10
P	7"