

Features

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



SOT-23

Description

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

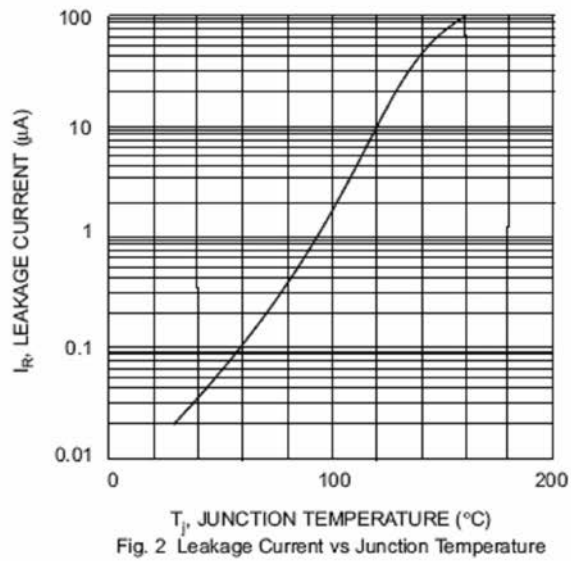
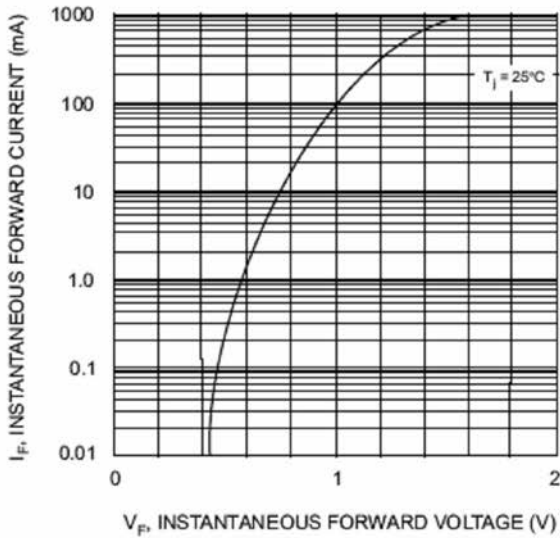
Absolute Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise noted)

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	I_O	0.2	A
Non-Repetitive Peak forward Surge Current	I_{FSM}	@ $t=1.0\mu\text{s}$	2.5
		@ $t=1.0\text{s}$	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	$^\circ\text{C}/\text{W}$
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_J, T_{STG}	-65 to +150	$^\circ\text{C}$

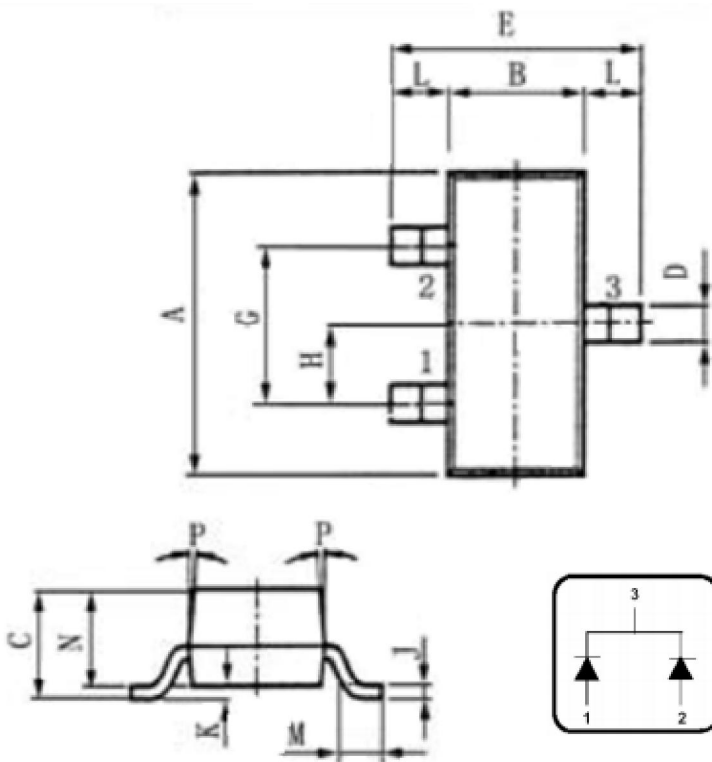
Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

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

Typical Electrical Characteristic Curves



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"