

Features

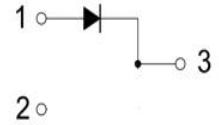
- Switching Speed: Max. 50ns
- General Applications
- Repetitive Peak Forward Current: Max. 625 mA.

Descrtion

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



SOT-23



Schematic Diagram

Applications

- General Purpose Switching

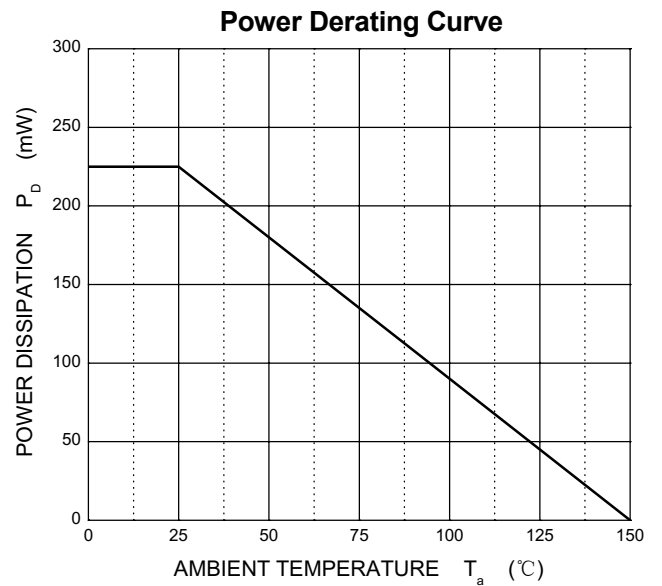
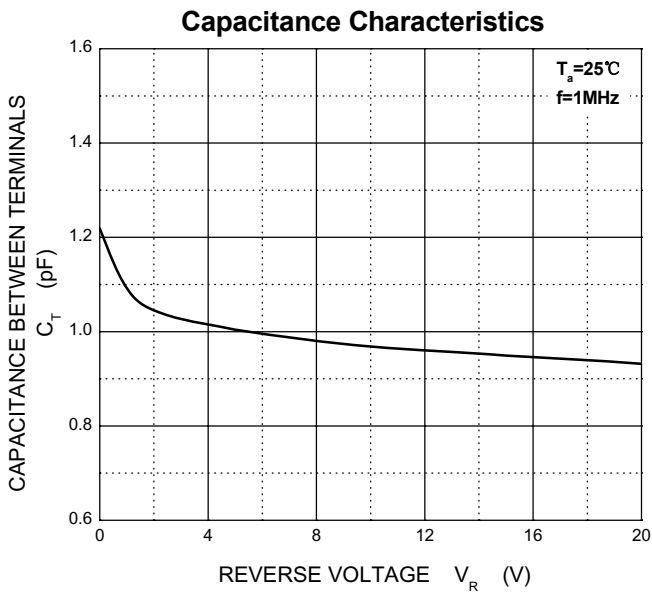
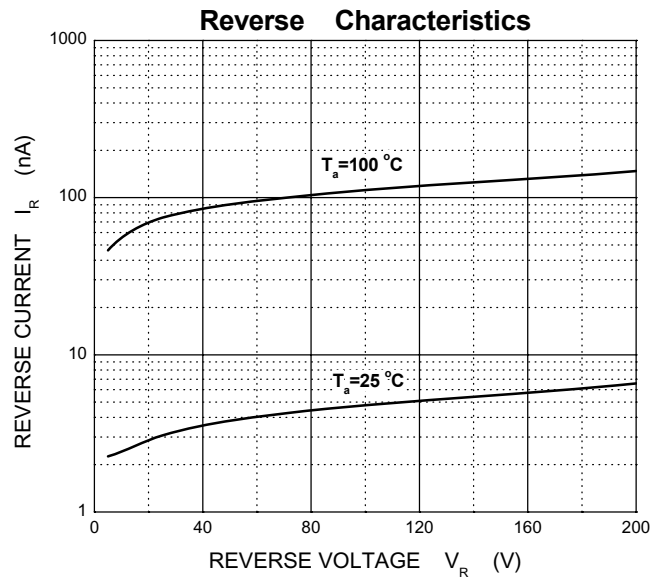
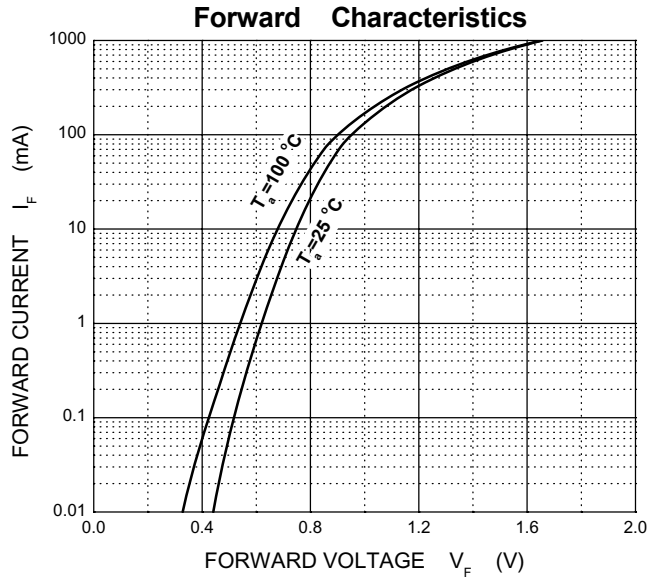
Absolute Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	Value	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=1.0us	2.5
		@ 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 _{θJA}	555	°C /W
Junction Temperature	T _J	-55 to +150	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

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

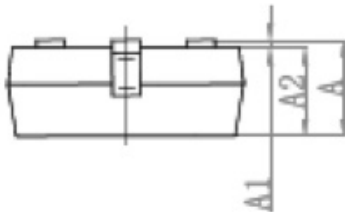
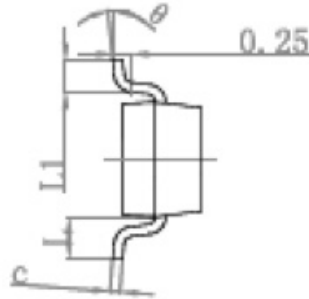
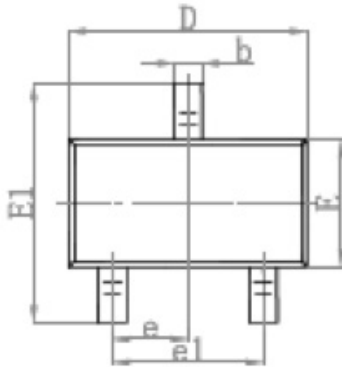
Parameter	Symbol	Conditions	Min.	Max.	Unit
Reverse Breakdown Voltage	V _(BR)	I _R =100uA	250	-	V
Reverse Voltage Leakage Current	I _R	V _R =200V	-	0.1	uA
Forward Voltage	V _{FM}	I _F =100mA	-	1	V
		I _F =200mA	-	1.25	
Diode Capacitance	C _D	V _R =0V, f=1MHz	-	5	pF
Reverse Recovery Time	T _{RR}	I _F =I _R =30mA, I _{RR} =0.1*I _R ,R _L =100 Ω	-	50	nS

Typical Electrical Characteristic Curves



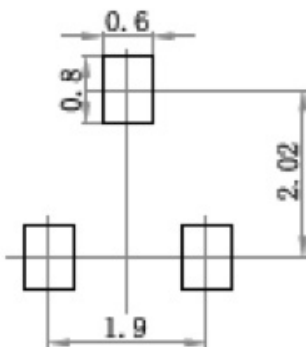
Package Outline Dimensions

SOT-23



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

Suggested Pad Layout



- Note:
1. Controlling dimension: in millimeters.
 2. General tolerance: $\pm 0.05\text{mm}$.
 3. The pad layout is for reference purposes only.