



## Features

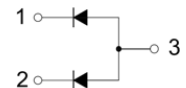
- Average Rectified Output Current:  $I_O=200\text{mA}$
- Power Dissipation of 225mw



## Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
BAS21A	SOT-23	JS2	3000

### SOT-23



## Maxmim Ratings ( $T_a=25^\circ\text{C}$ unless otherwise noted)

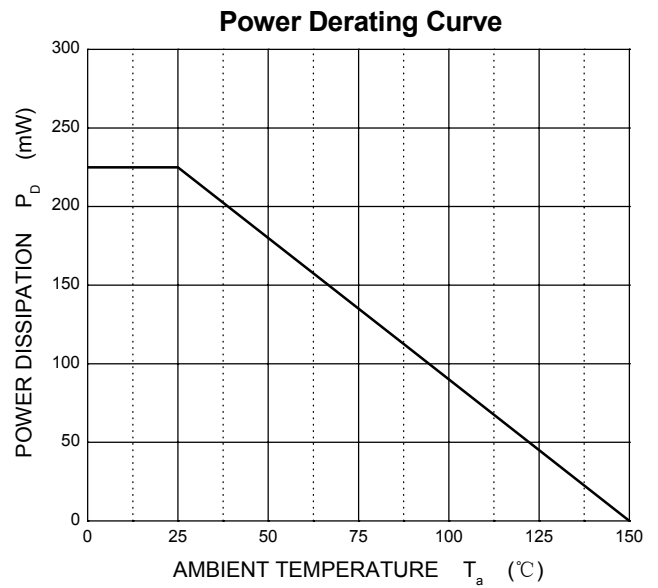
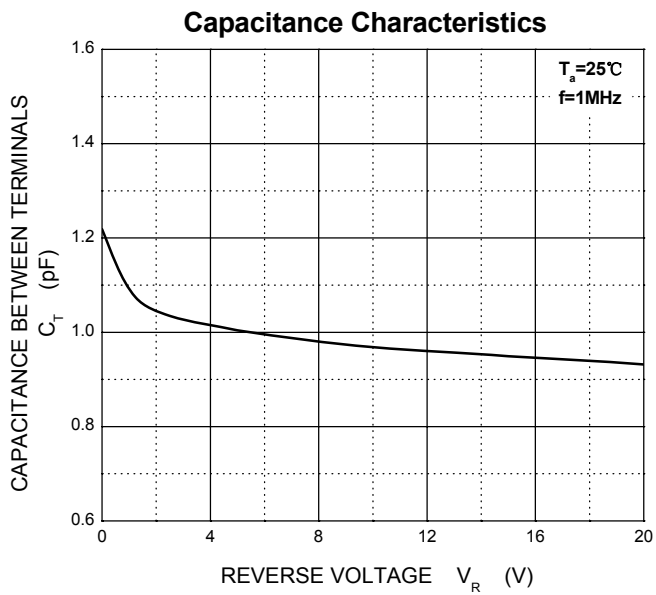
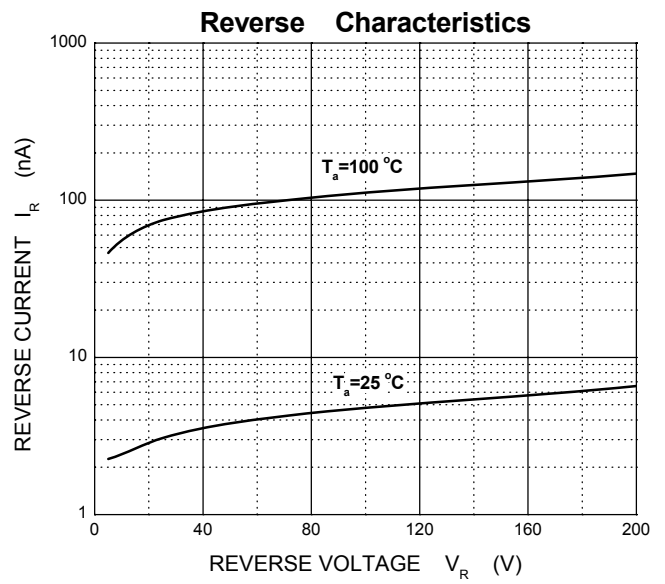
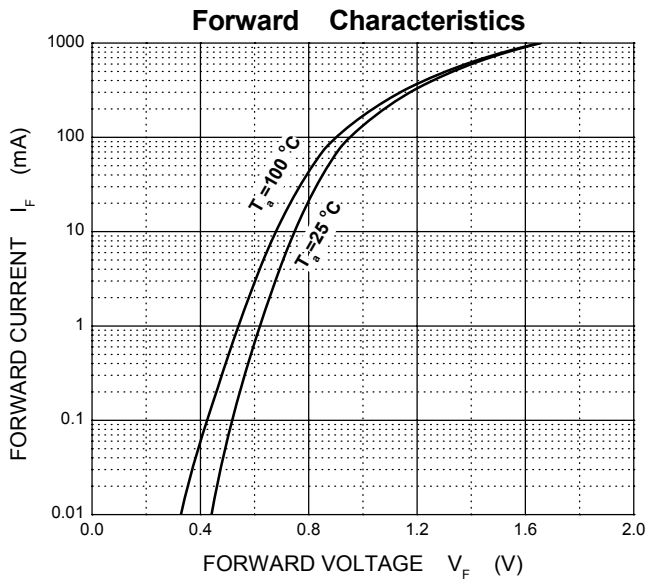
Parameter	Symbol	Limit	Unit
Repetitive peak reverse voltage	$V_{RRM}$	250	V
Working peak reverse voltage	$V_{RWM}$		
DC blocking voltage	$V_R$		
Forward continuous current	$I_{FM}$	400	mA
Average rectified output current	$I_O$	200	mA
Non-Repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	$I_{ESM}$	2.5	A
Repetitive peak forward surge current	$I_{FRM}$	625	mA
Power dissipation	$P_D$	225	mW
Thermal resistance junction to ambient	$R_{\theta JA}$	555	$^\circ\text{C/W}$
Junction temperature	$T_J$	150	$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-55~+150	$^\circ\text{C}$

## Electrcal Characteristics ( $T_a=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	$I_R=100\mu\text{A}$	250		V
Reverse voltage leakage current	$I_R$	$V_R=200\text{V}$		0.1	$\mu\text{A}$
Forward voltage	$V_F$	$I_F=100\text{mA}$ $I_F=200\text{mA}$		1000 1250	mV
Diode capacitance	$C_D$	$V_R=0\text{V}$ , $f=1\text{MHz}$		5	pF
Reveres recovery time	$t_{rr}$	$I_F=I_R=30\text{mA}$ , $I_{tr}=0.1 \times I_R$ , $R_L=100\Omega$		50	ns

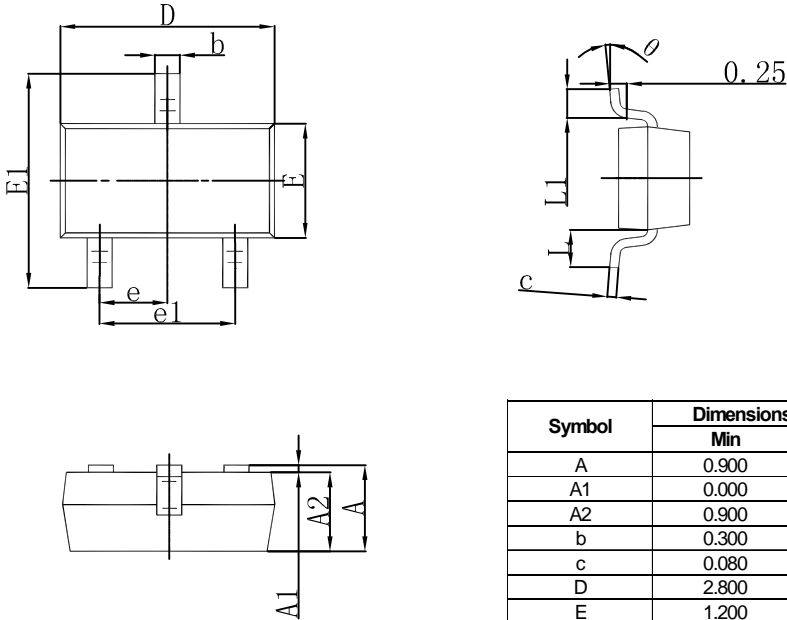


### Typical Characteristics



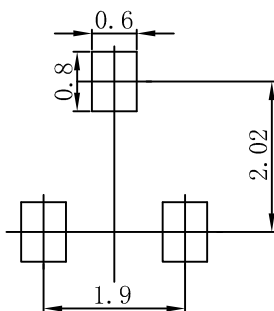


### SOT-23 Package Outline Dimensions



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°

### SOT-23 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.



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