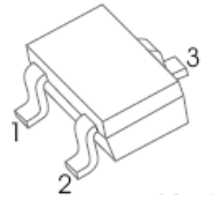


SOT-323 Plastic-Encapsulate Diodes**BAS19W/20W/21W****Switching Diodes**

SOT-323

**FEATURES**

- Fast Switching Speed, High Conductance
- For General Purpose Switching Applications

MARKING & Equivalent Circuit

BAS19W	BAS20W	BAS21W

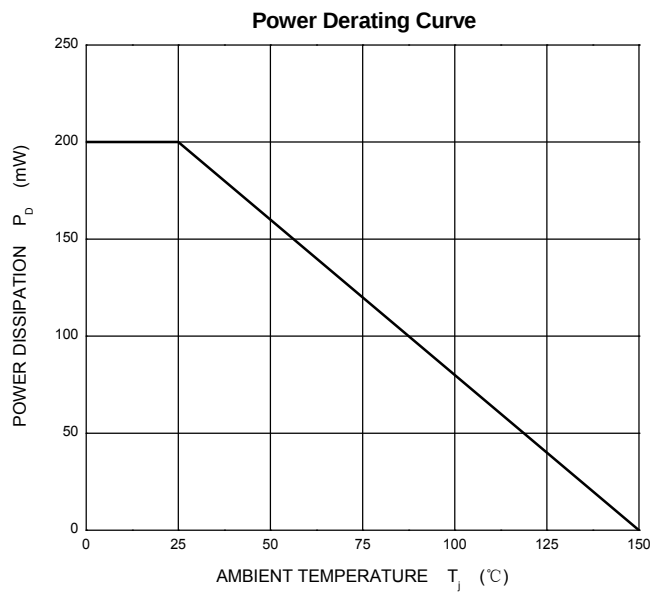
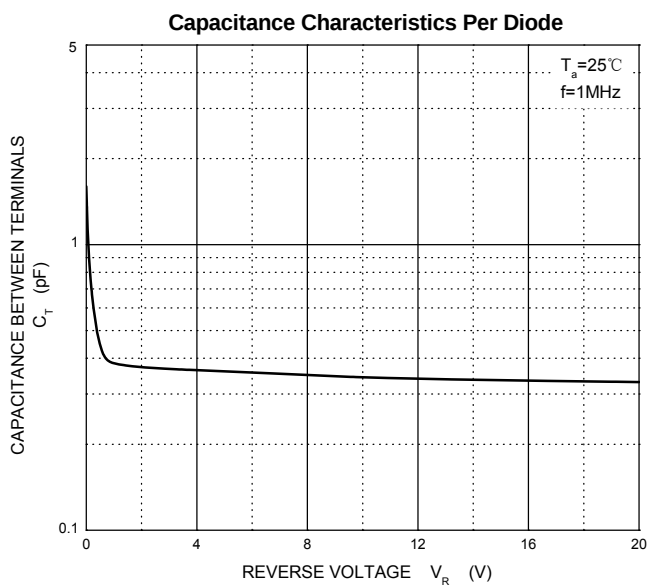
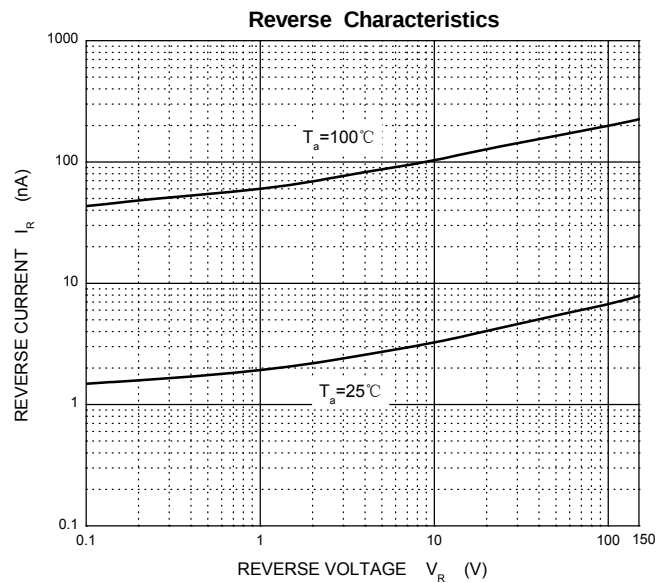
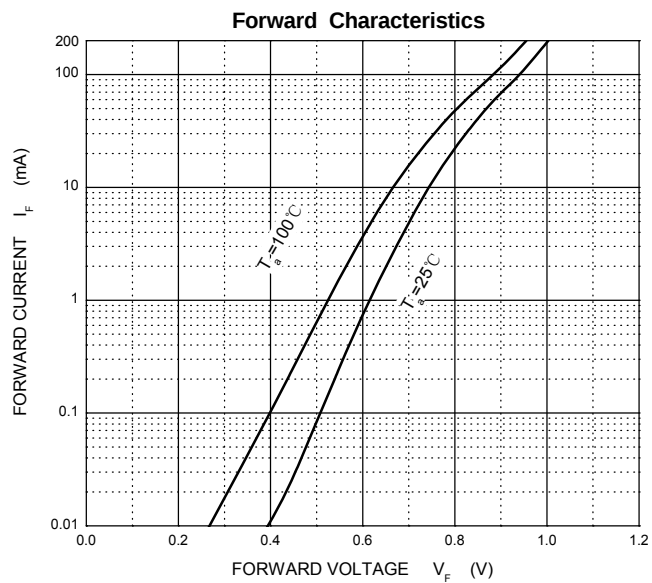
MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	BAS19W	BAS20W	BAS21W	Unit
Peak Repetitive Reverse Voltage DC Blocking Voltage	V_{RRM} V_R	100	150	250	V
Average Rectified Output Current	I_O	200			mA
Non-Repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	I_{FSM}	2.5			A
Power Dissipation	P_D	200			mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	625			$^{\circ}\text{C/W}$
Operation Junction and Storage Temperature Range	T_J, T_{STG}	$-55\sim+150$			$^{\circ}\text{C}$

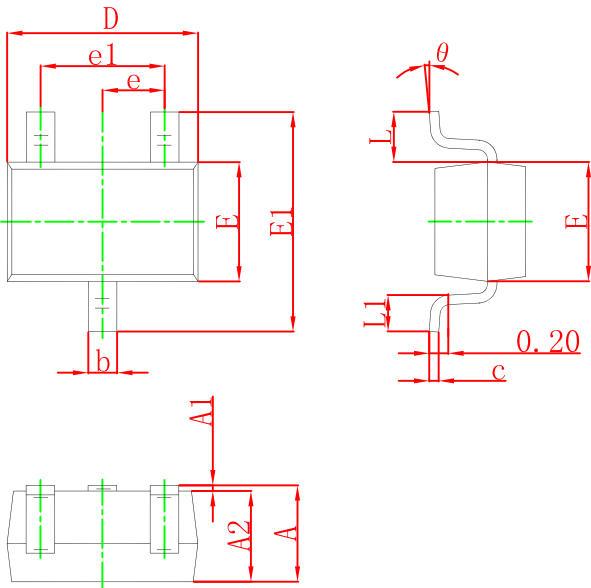
ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Reverse breakdown voltage BAS19W BAS20W BAS21W	$V_{(BR)}$	$I_R=100\mu\text{A}$	100 150 250		V
Reverse voltage leakage current BAS19W BAS20W BAS21W	I_R	$V_R=100\text{V}$ $V_R=150\text{V}$ $V_R=200\text{V}$		0.1	μA
Forward voltage	V_F	$I_F=100\text{mA}$ $I_F=200\text{mA}$		1 1.25	V
Diode capacitance	C_D	$V_R=0\text{V}$, $f=1\text{MHz}$		5	pF
Reveres recovery time	t_{rr}	$I_F=I_R=30\text{mA}$, $I_{rr}=0.1\times I_R$		50	ns

Typical Characteristics

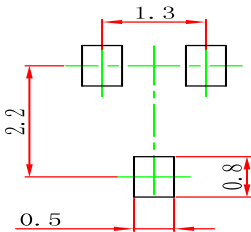


Package Outline Dimensions (SOT-323)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.450	0.085	0.096
e	0.650 TYP		0.026 TYP	
e1	1.200	1.400	0.047	0.055
L	0.525 REF		0.021 REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°

Suggested Pad Layout (SOT-323)



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.