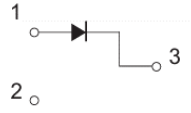
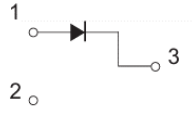
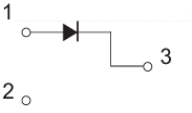
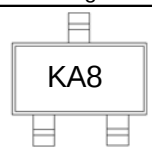
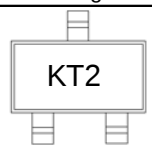
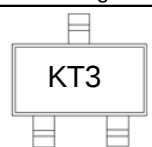


Features

- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- High Conductance
- For General Purpose Switching Applications



SOT-323 top view

BAS19W	BAS20W	BAS21W
		
Marking:KA8	Marking:KT2	Marking:KT3
		



Halogen-Free

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

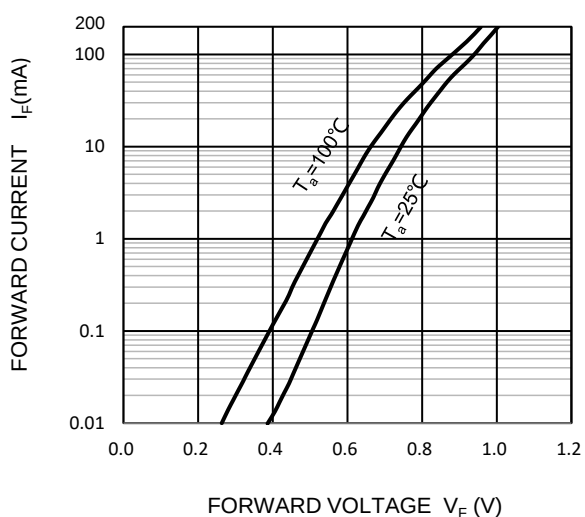
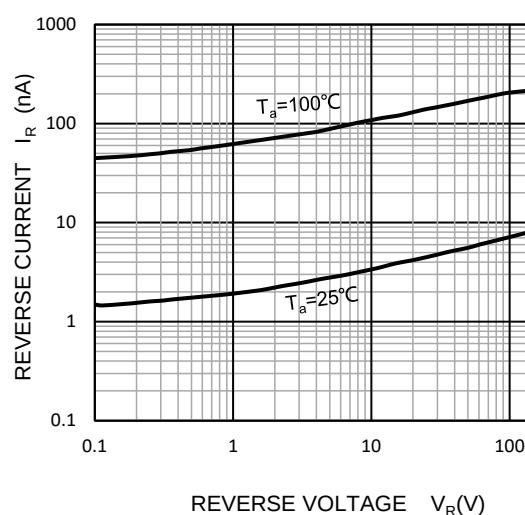
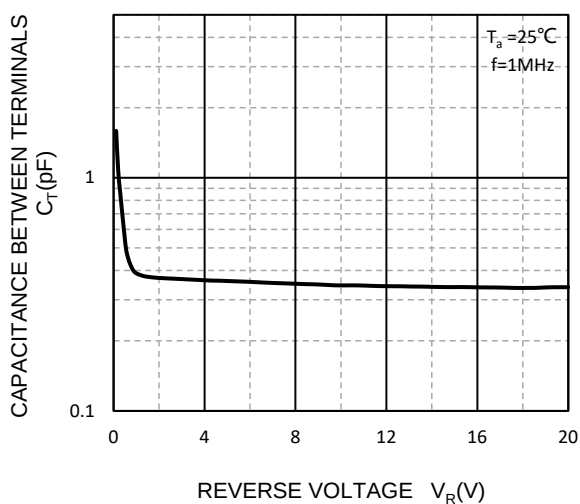
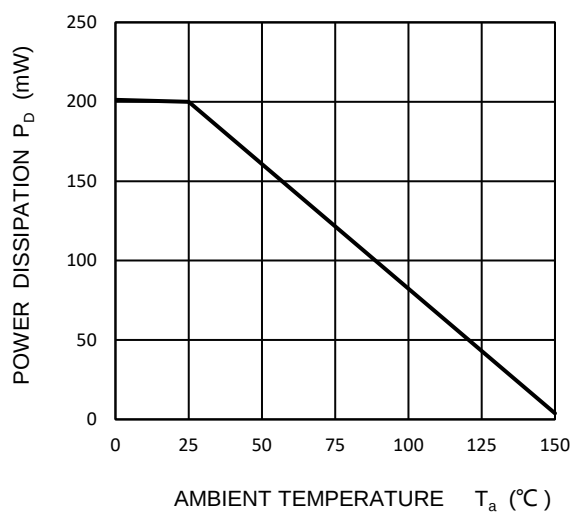
Symbol	Parameter	BAS19W	BAS20W	BAS21W	Unit
V _R	DC Blocking Voltage	100	150	250	V
V _{RRM}	Working Peak Reverse Voltage				
I _O	Average Rectified Output Current	200			mA
I _{FSM}	Non-Repetitive Peak Forward Surge Current @t=8.3ms	2.5			A
P _D	Power Dissipation	200			mW
R _{θJA}	Thermal Resistance Junction to Ambient	625			°C/W
T _J , T _{STG}	Operating and Storage Temperature Range	-55~+150			°C

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

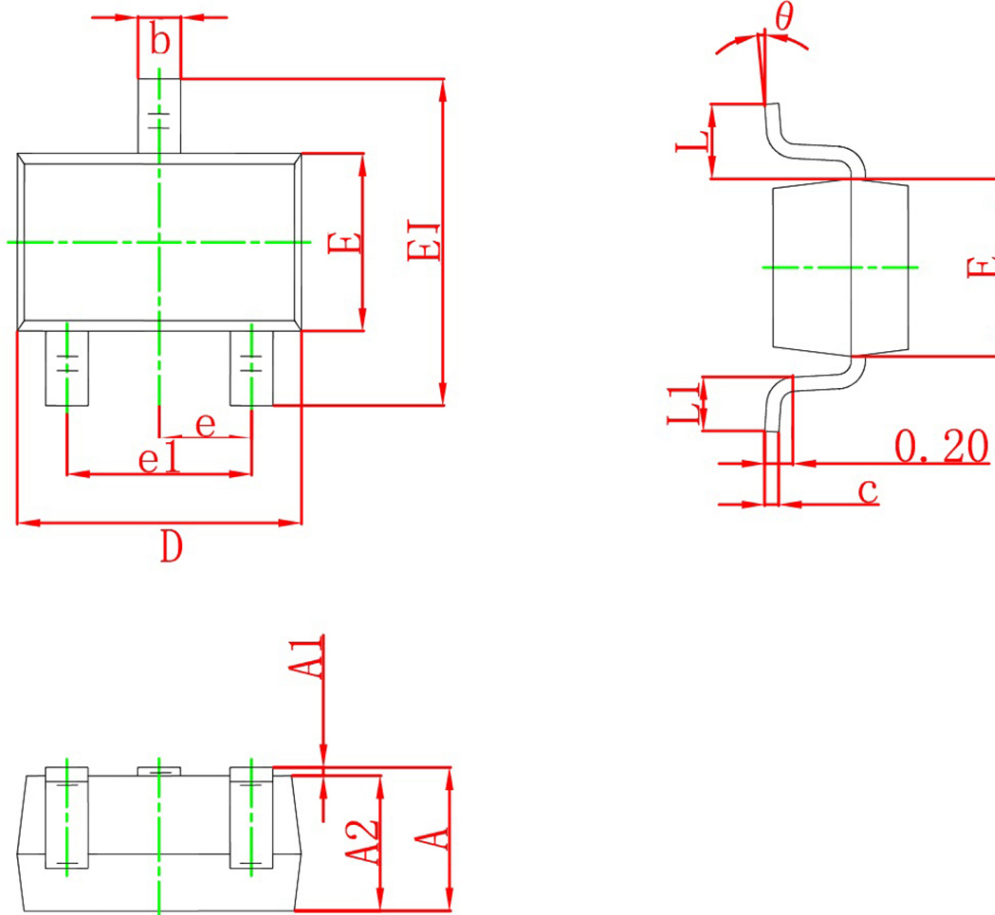
Symbol	Parameter	Condition	Min	Typ	Max	Unit
$V_{(BR)}$	Reverse breakdown voltage BAS19W	$I_R=100\mu\text{A}$	100	--	--	V
	Reverse breakdown voltage BAS20W		150	--	--	V
	Reverse breakdown voltage BAS21W		250	--	--	V
I_R	Reverse voltage leakage current BAS19W	$V_R=100\text{V}$	--	--	0.1	μA
	Reverse voltage leakage current BAS20W	$V_R=150\text{V}$				
	Reverse voltage leakage current BAS21W	$V_R=200\text{V}$				
V_F	Forward voltage	$I_F=100\text{mA}$	--	--	1.00	V
		$I_F=200\text{mA}$	--	--	1.25	V
C_D	Diode capacitance	$V_R=0\text{V}, f=1\text{MHz}$	--	--	5	pF
t_{rr}	Reverse recovery time	$I_F=I_R=30\text{mA}, I_R=0.1\times I_R$	--	--	50	ns

Ordering Information (Example)

Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton	Delivery Mode
BAS19W	SOT-323	KA8	3,000	45,000	180,000	7"reel
BAS20W	SOT-323	KT2	3,000	45,000	180,000	7"reel
BAS21W	SOT-323	KT3	3,000	45,000	180,000	7"reel

Typical Operating Characteristics
Forward Characteristics

Reverse Characteristics

Capacitance Characteristics

Power Derating Curve


SOT-323 Package information



Symbol	Dimensions in Millimeters(mm)		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	0.650TYP		0.026TYP	
e1	1.200	1.400	0.047	0.055
L	0.525REF		0.021REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°