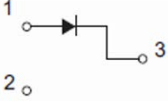
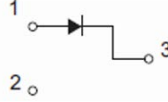
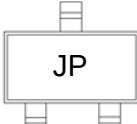
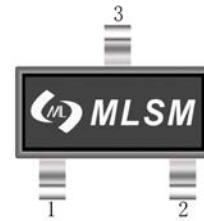


Features

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

BAS19	BAS20
	
Marking:JP	Marking:JR
	



SOT-23 top view



Halogen-Free

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

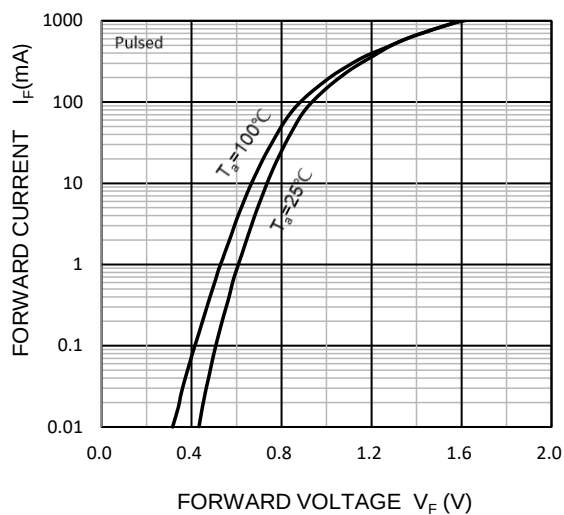
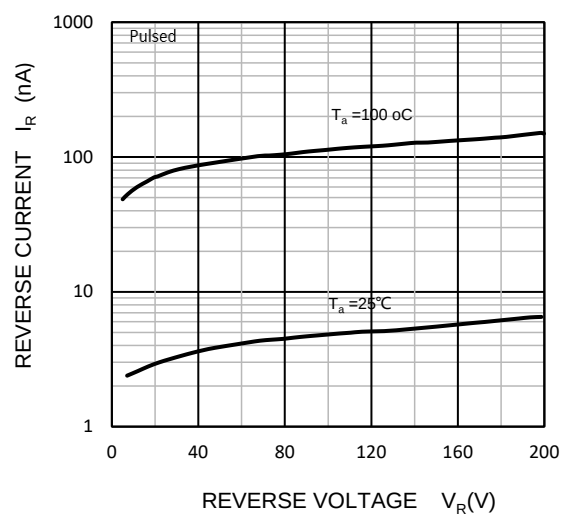
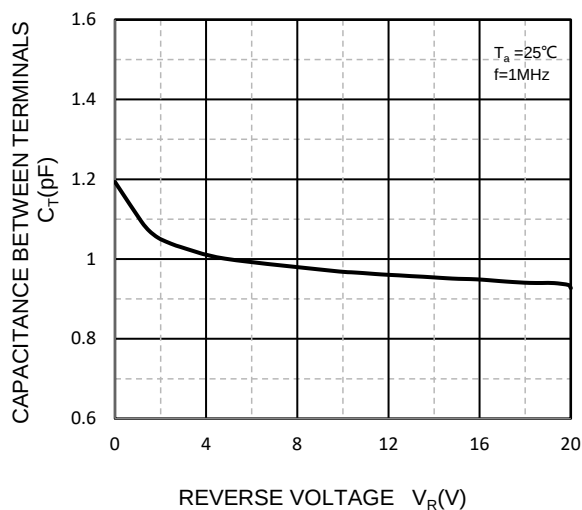
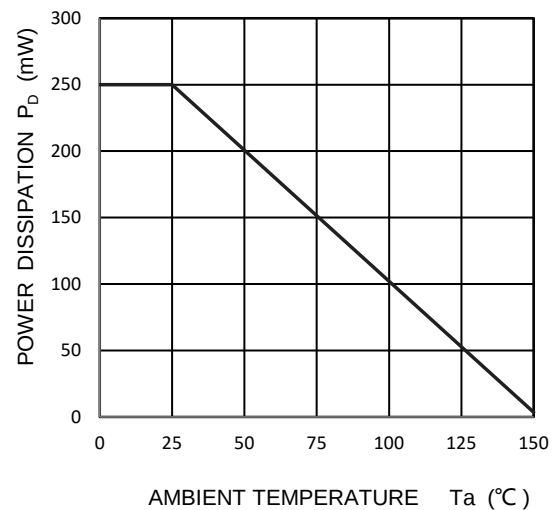
Symbol	Parameter	BAS19	BAS20	Unit
V_{RRM}	Repetitive Peak Reverse Voltage	120	200	V
V_{RWM}	Working Peak Reverse Voltage	100	150	V
I_O	Average Rectified Output Current	200		mA
I_{FSM}	Non-Repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	2.5		A
P_D	Power Dissipation	250		mW
$R_{\theta JA}$	Thermal Resistance Junction to Ambient	500		$^{\circ}\text{C/W}$
T_J, T_{STG}	Operating and Storage Temperature Range	$-55 \sim +150$		$^{\circ}\text{C}$

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

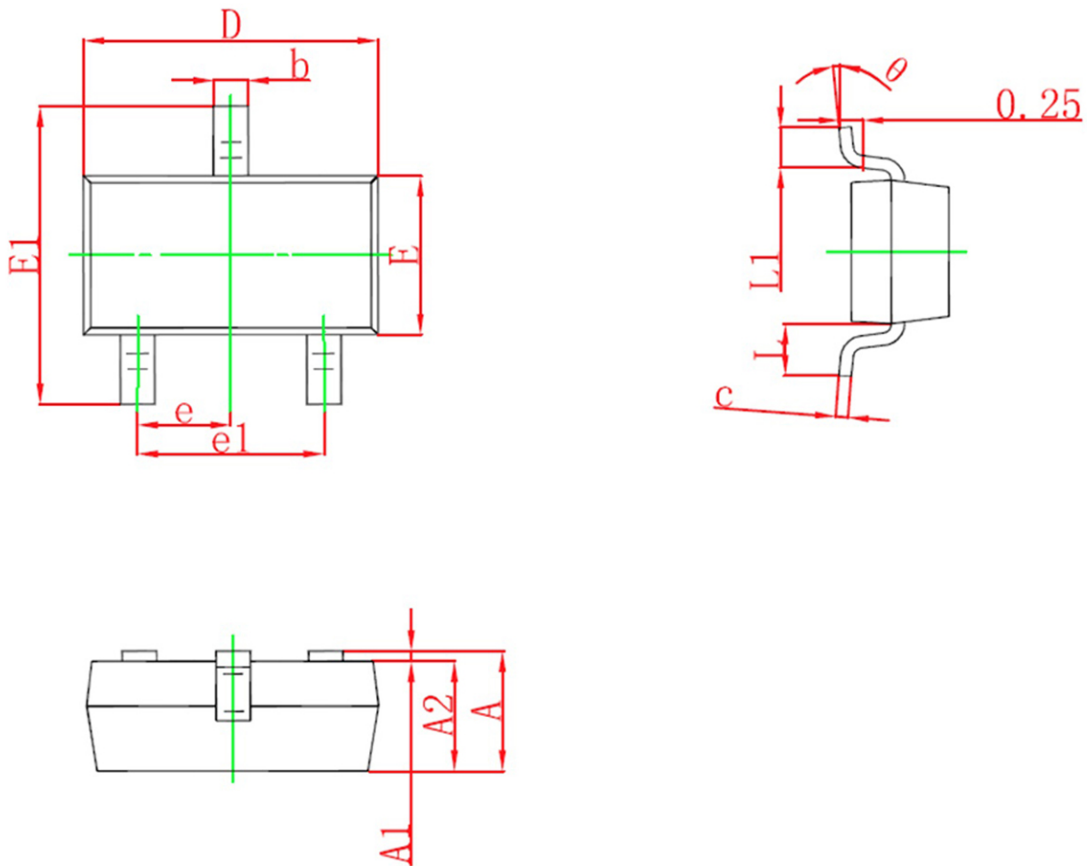
Symbol	Parameter	Condition	Min	Typ	Max	Unit
$V_{(BR)}$	Reverse breakdown voltage BAS19	$I_R=100\mu\text{A}$	120	--	--	V
	Reverse current BAS20		200	--	--	V
I_R	Reverse current BAS19	$V_R=100\text{V}$	--	--	0.1	μA
	Reverse current BAS20	$V_R=150\text{V}$	--	--	0.1	μA
V_{F1}	Forward voltage	$I_F=100\text{mA}$	--	--	1.00	V
V_{F2}		$I_F=200\text{mA}$	--	--	1.25	V
C_D	Diodes capacitance	$V_R=0\text{V}, f=1\text{MHz}$	--	--	5	pF
t_{rr}	Reverse recovery time	$I_F=I_R=30\text{mA}, I_{rr}=0.1I_R$	--	--	50	ns

Ordering Information (Example)

Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
BAS19	SOT-23	JP	3,000	45,000	180,000	7"reel
BAS20	SOT-23	JR	3,000	45,000	180,000	7"reel

Typical Operating Characteristics
Forward Characteristics

Reverse Characteristics

Capacitance Characteristics

Power Derating Curve


SOT-23 Package information



Symbol	Dimensions in Millimeters(mm)		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
E1	2.250	2.550	0.088	0.100
E	1.200	1.400	0.047	0.055
e	0.950TYP		0.037TYP	
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°