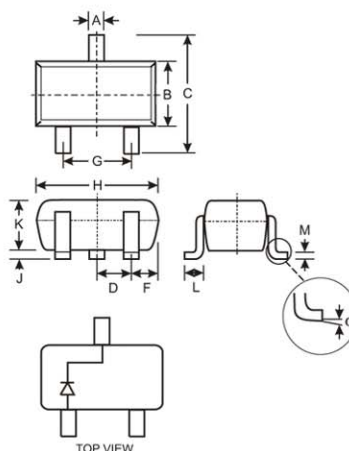


● Features

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

● Mechanical Data

Case: SOT-323, Molded Plastic
Case Material - UL Flammability Rating Classification 94V-0
Moisture sensitivity: Level 1 per J-STD-020A
Terminals: Solderable per MIL-STD-202, Method 208
Terminal Connections: See Diagram
BAS19W Marking: KA8 or KT2 or KT3 (See Page 3)
BAS20W Marking: KT2 or KT3 (See Page 3)
BAS21W Marking: KT3 (See Page 3)
Weight: 0.006 grams (approx.)



SOT-323		
Dim	Min	Max
A	0.25	0.40
B	1.15	1.35
C	2.00	2.20
D	0.65 Nominal	
E	0.30	0.40
G	1.20	1.40
H	1.80	2.20
J	0.0	0.10
K	0.90	1.00
L	0.25	0.40
M	0.10	0.18
α	0°	8°
All Dimensions in mm		

● Maximum Ratings @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	BAS19W	BAS20W	BAS21W	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	120	200	250	V
Working Peak Reverse Voltage DC Blocking Voltage	V_{RWM} V_R	100	150	200	V
RMS Reverse Voltage	$V_{R(RMS)}$	71	106	141	V
Forward Continuous Current (Note 1)	I_{FM}	400			mA
Average Rectified Output Current (Note 1)	I_O	200			mA
Non-Repetitive Peak Forward Surge Current @ $t = 1.0\mu\text{s}$ @ $t = 1.0\text{s}$	I_{FSM}	2.5 0.5			A
Repetitive Peak Forward Surge Current	I_{FRM}	625			mA
Power Dissipation	P_d	200			mW
Thermal Resistance Junction to Ambient Air (Note 1)	$R_{\theta JA}$	625			$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +150			$^\circ\text{C}$

● Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Min	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 2) BAS19W BAS20W BAS21W	$V_{(BR)R}$	120 200 250	— — —	V	$I_R = 100\mu\text{A}$
Forward Voltage (Note 2)	V_F	—	1.0 1.25	V	$I_F = 100\text{mA}$ $I_F = 200\text{mA}$
Reverse Current @ Rated DC Blocking Voltage (Note 2)	I_R	—	100 15	nA μA	$T_j = 25^\circ\text{C}$ $T_j = 100^\circ\text{C}$
Total Capacitance	C_T	—	5.0	pF	$V_R = 0, f = 1.0\text{MHz}$
Reverse Recovery Time	t_{rr}	—	50	ns	$I_F = I_R = 30\text{mA}$, $I_{rr} = 0.1 \times I_R, R_L = 100\Omega$

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