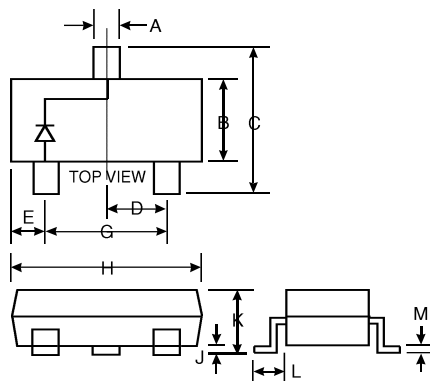


### Features

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  
 Terminals: Solderable per MIL-STD-202, Method 208  
 Terminal Connections: See Diagram  
 Weight: 0.006 grams (approx.)



SOT-323		
Dim	Min	Max
A	0.30	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	0.25
All Dimensions in mm		

### Maximum Ratings @ $T_A = 25\text{ C}$ 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 @ $t = 1.0\text{ s}$ @ $t = 1.0\text{ s}$	$I_{FSM}$		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)	$R_{JA}$		625		K/W
Operating and Storage Temperature Range	$T_j, T_{STG}$		-65 to +150		C

### Electrical Characteristics @ $T_A = 25\text{ C}$ unless otherwise specified

Characteristic	Symbol	Min	Max	Unit	Test Condition
Maximum Forward Voltage	$V_{FM}$		1.0 1.25	V	$I_F = 100\text{mA}$ $I_F = 200\text{mA}$
Maximum Peak Reverse Current @ Rated DC Blocking Voltage	$I_{RM}$		100 15	nA A	$T_j = 25\text{ C}$ $T_j = 100\text{ C}$
Junction Capacitance	$C_j$		5.0	pF	$V_R = 0, f = 1.0\text{MHz}$
Reverse Recovery Time	$t_{rr}$		50	ns	$I_F = I_R = 30\text{mA}$ , $I_{rr} = 0.1 \times I_R, R_L = 100$

Note: 1. Valid provided that terminals are kept at ambient temperature.

