



# DATA SHEET

SEMICONDUCTOR

**BAS19W/20W/21W**

## SOT-323 Plastic-Encapsulate DIODE



### SWITCHING DIODE

#### FEATURES

Power dissipation

PD: 200 mW ( $T_{amb}=25^\circ\text{C}$ )

Collector current

$I_F$ : 200 mA

Collector-base voltage

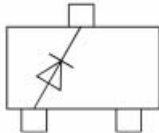
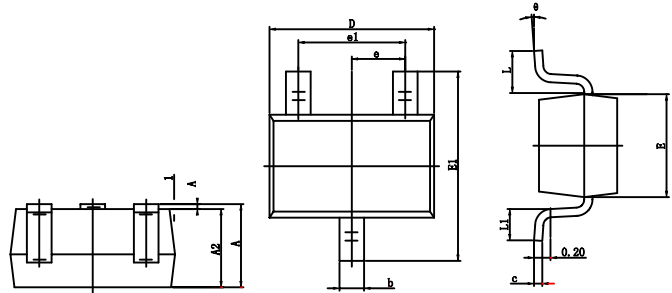
$V_R$ : 19W: 120 V; 20W: 150V ; 21W: 200V

Operating and storage junction temperature range

$T_J, T_{stg}$ :  $-55^\circ\text{C}$  to  $+150^\circ\text{C}$

SOT323

Unit:inch(mm)



Marking: BAS19W KA8  
BAS20W KT2  
BAS21W KT3

High temperature soldering :  $260^\circ\text{C}$  / 10 seconds at terminals

Pb free product at available : 99% Sn above meet RoHS  
environment substance directive request

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
$\theta$	$0^\circ$	$8^\circ$	$0^\circ$	$8^\circ$

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

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Reverse breakdown voltage	BAS19W	$I_R=100\mu\text{A}$	100		V
	BAS20W		150		
	BAS21W		200		
Reverse voltage leakage current	BAS19W	$V_R=100\text{V}$ $V_R=150\text{V}$ $V_R=200\text{V}$		0.1	$\mu\text{A}$
	BAS20W				
	BAS21W				
Forward voltage	$V_F$	$I_F=100\text{mA}$ $I_F=200\text{mA}$		1000 1250	mV
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

# DEVICE CHARACTERISTICS

## BAS19W/20W/21W

