

# BAS21WS

## High Voltage Switching Diode

### Features

- Halogen free available upon request by adding suffix "-HF"
- For Surface Mount Application.
- Device Marking: JS
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- For Surface Mount Application.
- Lead Free Finish/RoHS Compliant("P" Suffix designates RoHS Compliant. See ordering information)

### Maximum Ratings

Symbol	Rating	Value	Unit
$V_R$	Continuous Reverse Voltage	250	Vdc
$I_F$	Peak Forward Current	200	mAdc
$I_{FM(surge)}$	Peak Forward Surge Current	625	mAdc

### Thermal Characteristics

Symbol	Characteristic	Max	Unit
$P_D$	Total Device Dissipation FR-5 Board *, $T_A=25^\circ\text{C}$ Derate above $25^\circ\text{C}$	200 1.57	mW mW/ $^\circ\text{C}$
$R_{JA}$	Thermal Resistance Junction to Ambient	635	$^\circ\text{C}/\text{W}$
$T_J, T_{STG}$	Junction and Storage Temperature Range	-55 to +155	$^\circ\text{C}$

### Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Characteristic	Min	Max	Unit
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### Off Characteristics

$I_R$	Reverse Voltage Leakage Current ( $V_R=200\text{Vdc}$ ) ( $V_R=200\text{Vdc}, T_J=150^\circ\text{C}$ )	---	0.1 100	$\mu\text{Adc}$
$V_{(BR)}$	Reverse Breakdown Voltage ( $I_{BR}=100\mu\text{Adc}$ )	250	---	Vdc
$V_F$	Forward Voltage ( $I_F=100\text{mAdc}$ ) ( $I_F=200\text{mAdc}$ )	---	1000 1250	mVdc
$C_D$	Diode Capacitance ( $V_R=0, f=1.0\text{MHz}$ )	---	5.0	pF
trr	Reverse Recovery Time ( $I_F=I_R=30\text{mAdc}, R_L=100\text{OHM}$ )	---	50	ns

\*FR-5 Minimum Pad

### SOD-323

DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.090	.107	2.30	2.70	
B	.063	.071	1.60	1.80	
C	.045	.053	1.15	1.35	
D	.031	.045	0.80	1.15	
E	.010	.016	0.25	0.40	
G	.004	.018	0.10	0.45	
H	.004	.010	0.10	0.25	
J	----	.006	----	0.15	

SUGGESTED SOLDER PAD LAYOUT



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### Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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