

## Two Terminals SMD Switching Diodes

### Features

- Fast switching speed
- Surface mount package ideally suited for automatic insertion
- Electrically Identical to Standard JEDEC
- High conductance
- RoHS compliant



SOD-323



SOD-323F



### Mechanical Data

<b>Case:</b>	SOD-323/SOD-323F, molded plastic
<b>Terminals:</b>	Solderable per MIL-STD-750, Method 2026
<b>Weight:</b>	Approx. 0.004 gram

### Maximum Ratings *(T<sub>Ambient</sub>=25°C unless noted otherwise)*

Symbol	Description	BAV19WS	BAV20WS	BAV21WS	Unit	Conditions
<b>V<sub>R</sub></b>	Reverse Voltage	100	150	200	V	
<b>V<sub>RRM</sub></b>	Peak Reverse Voltage	120	200	250	V	
<b>I<sub>F(AV)</sub></b>	Average Forward Rectified Current	0.2			A	Half Wave Rectification with Resistive Load and f≥50Hz
<b>I<sub>FSM</sub></b>	Peak Forward Surge Current	2.5			A	t=0.001ms
<b>P<sub>D</sub></b>	Power Dissipation	200			mW	Derate above 25° C
<b>R<sub>thJA</sub></b>	Maximum Thermal Resistance	625			°C/W	
<b>T<sub>J</sub>, T<sub>STG</sub></b>	Operating Junction and Storage Temperature Range	-55 to +150			°C	

# Two Terminals SMD Switching

## BAV19WS/BAV20WS/BAV21WS

### Electrical Characteristics ( $T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbol	Description	BAV19WS	BAV20WS	BAV21WS	Unit	Conditions
$V_F$	Maximum Forward Voltage	1.0			V	$I_F=0.1A$
$I_R$	DC Reverse Current at Rated DC Blocking Voltage	0.1			$\mu A$	$T_J=25^{\circ}C$
$C_J$	Typical Junction Capacitance	5.0			pF	$V_R=0V, f=1.0MHz$
$T_{RR}$	Reverse Recovery Time	50			nS	$I_F=30mA, I_R=30mA, I_{rr}=3mA, V_R=6V, R_L=100\Omega$

### Typical Characteristics Curves

Fig.1- Power Derating Curve

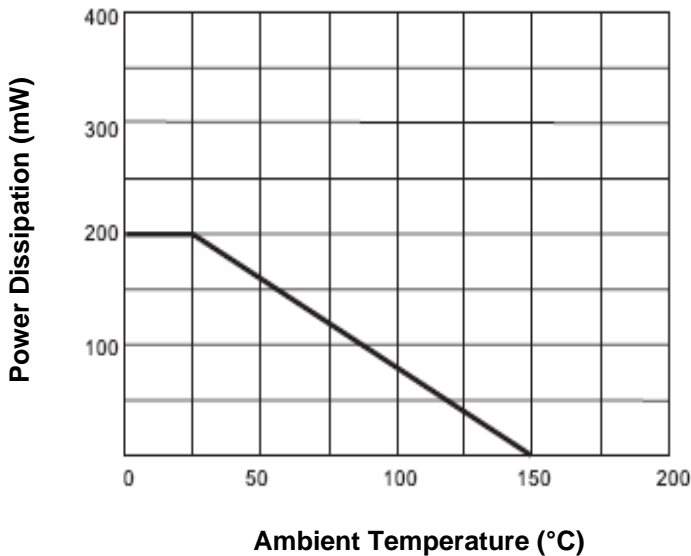


Fig.2- Typical Forward Characteristics

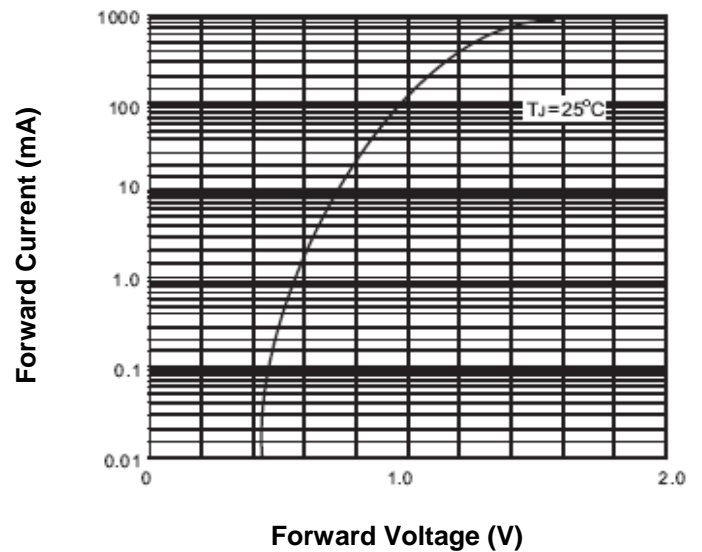


Fig.3-Leakage Current vs. Junction Temperature

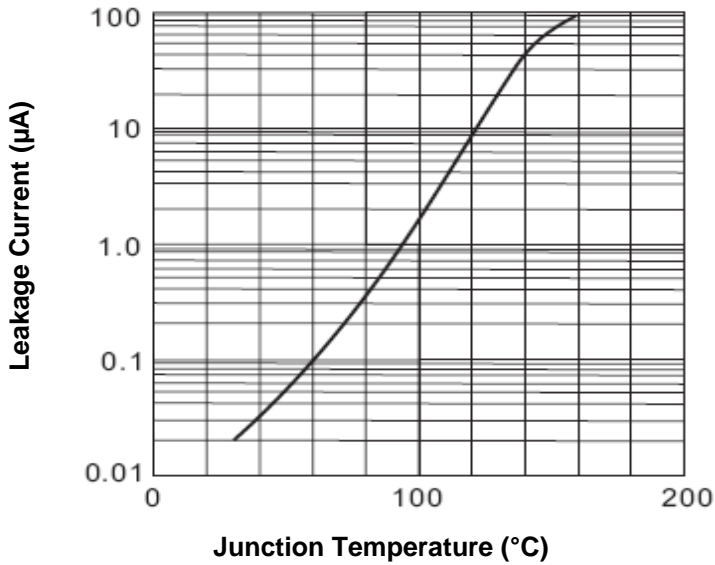
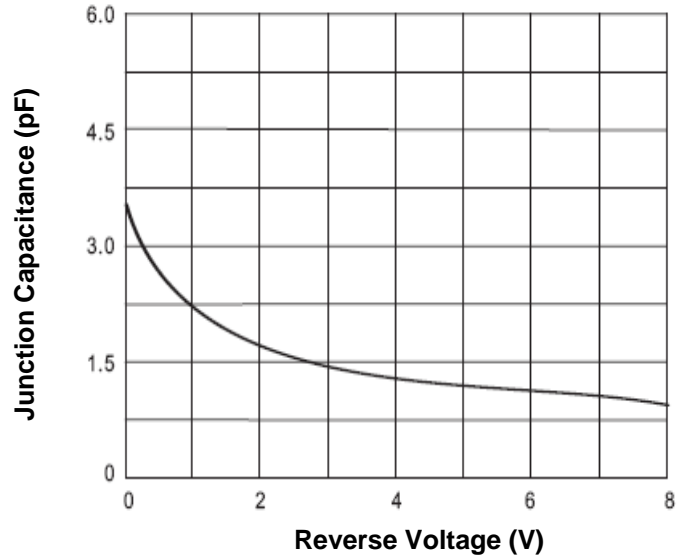


Fig.4- Typical Junction Capacitance



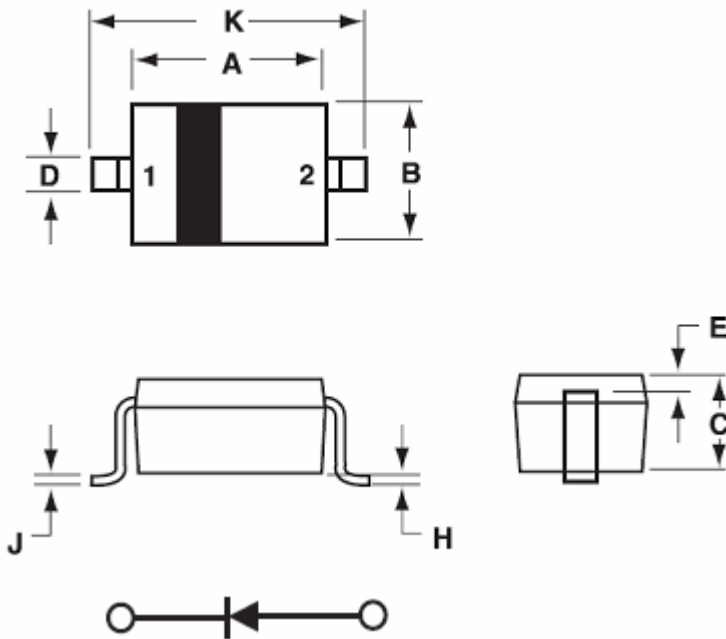
### Marking Information:

Outline	BAV19WS	BAV20WS	BAV21WS
SOD-323	A8, JP	T2, JR	T3, JS
SOD-323F	A8	A80	A82

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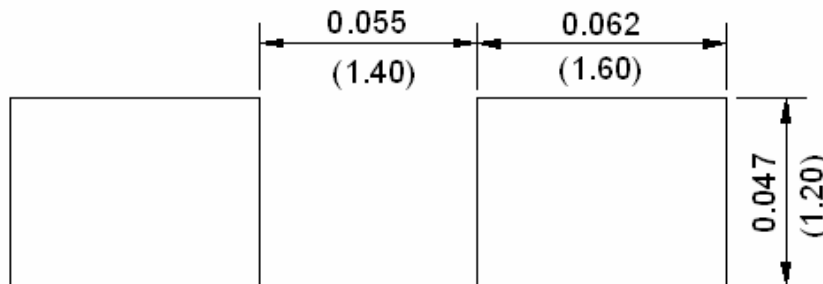
## BAV19WS/BAV20WS/BAV21WS

### SOD-323 Outline Dimensions



DIM	inch		mm	
	Min	Max	Min	Max
A	0.63	0.071	1.60	1.80
B	0.045	0.053	1.15	1.35
C	0.031	0.039	0.80	1.00
D	0.010	0.016	0.25	0.40
E	0.006 REF		0.15 REF	
H	0.00	0.043	0.00	1.10
J	0.004	0.015	0.089	0.377
K	0.091	0.106	2.30	2.70

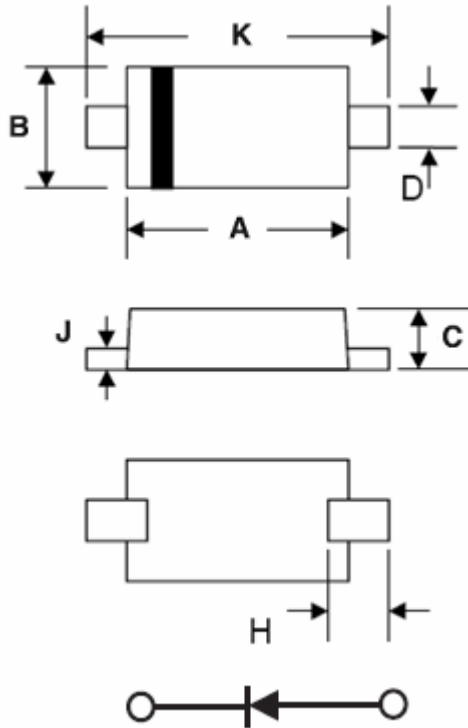
### Mounting Pad Layout in inch (mm)



# Two Terminals SMD Switching

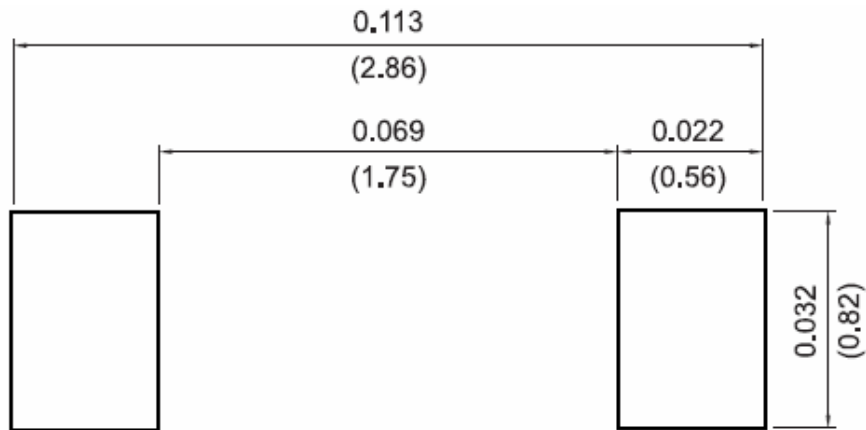
## BAV19WS/BAV20WS/BAV21WS

### SOD-323F Outline Dimensions



DIM	inch		mm	
	Min	Max	Min	Max
A	0.069	0.077	1.75	1.95
B	0.045	0.053	1.15	1.35
C	0.028	0.037	0.70	0.95
D	0.010	0.014	0.25	0.35
H	0.012	-	0.30	-
J	0.002	0.006	0.05	0.15
K	0.091	0.106	2.30	2.70

### Mounting Pad Layout in inch (mm)

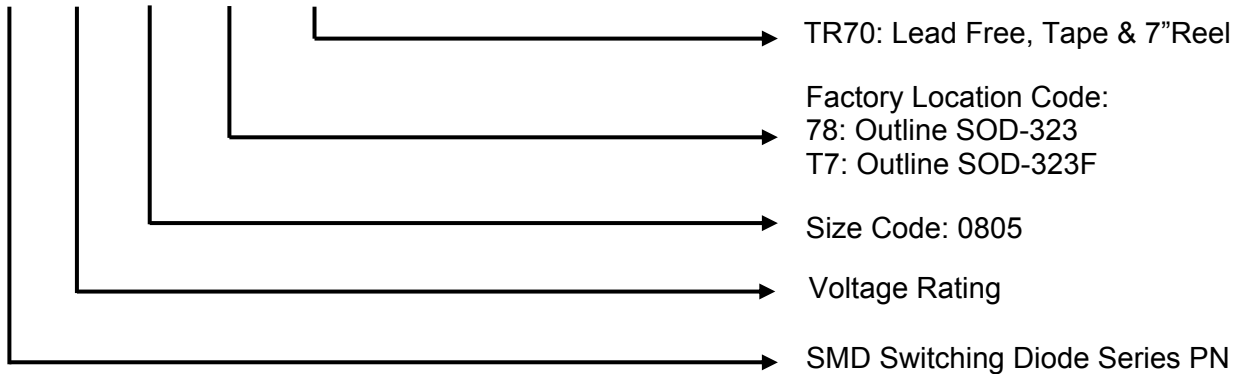


## Two Terminals SMD Switching

### BAV19WS/BAV20WS/BAV21WS

#### Ordering Information

##### BAV XX WS- XX-TR70



#### How to contact us:

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