

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

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

Maximum Ratings ($T_{Ambient}=25^{\circ}\text{C}$ unless noted otherwise)

Symbol	Description	BAV19WS	BAV20WS	BAV21WS	Unit	Conditions
V_R	Reverse Voltage	100	150	200	V	
V_{RRM}	Peak Reverse Voltage	120	200	250	V	
$I_{F(AV)}$	Average Forward Rectified Current	0.2			A	Half Wave Rectification with Resistive Load and $f \geq 50\text{Hz}$
I_{FSM}	Peak Forward Surge Current	2.5			A	$t=0.001\text{ms}$
P_D	Power Dissipation	200			mW	Derate above 25°C
R_{thJA}	Maximum Thermal Resistance	625			$^{\circ}\text{C/W}$	
T_J, T_{STG}	Operating Junction and Storage Temperature Range	-55 to +150			$^{\circ}\text{C}$	

BAV19WS/BAV20WS/BAV21WS

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

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

Typical Characteristics Curves

Fig.1- Power Derating Curve

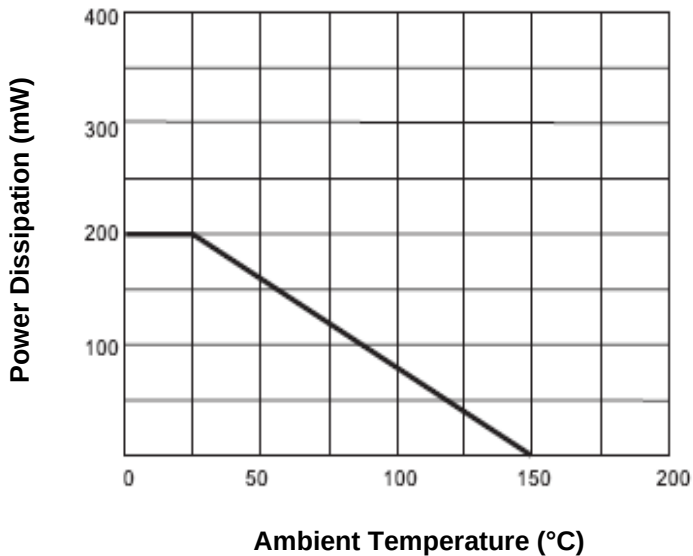


Fig.2- Typical Forward Characteristics

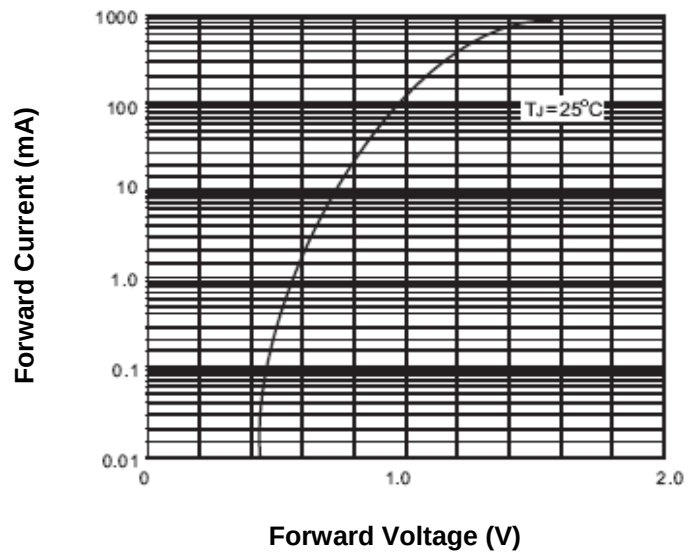


Fig.3-Leakage Current vs. Junction Temperature

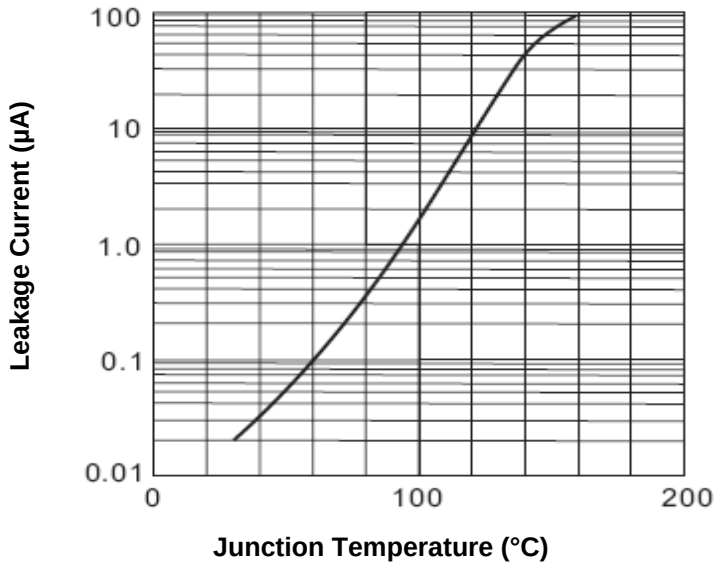
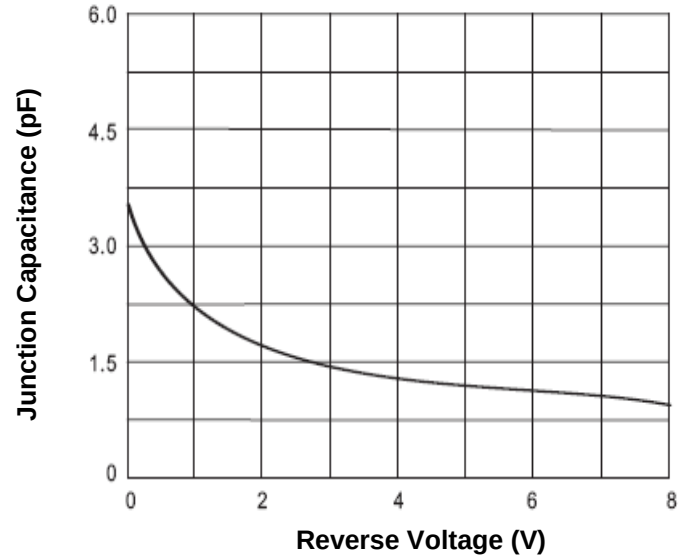


Fig.4- Typical Junction Capacitance



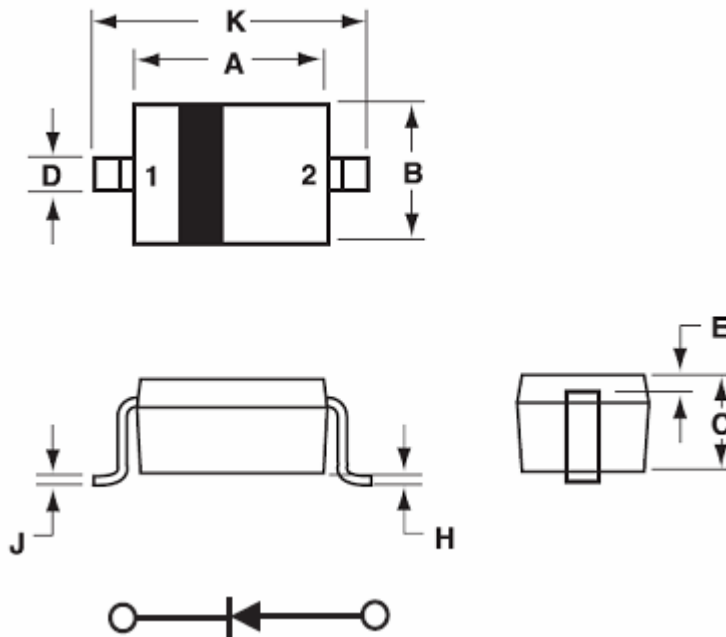
Marking Information:

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

Two Terminals SMD Switching

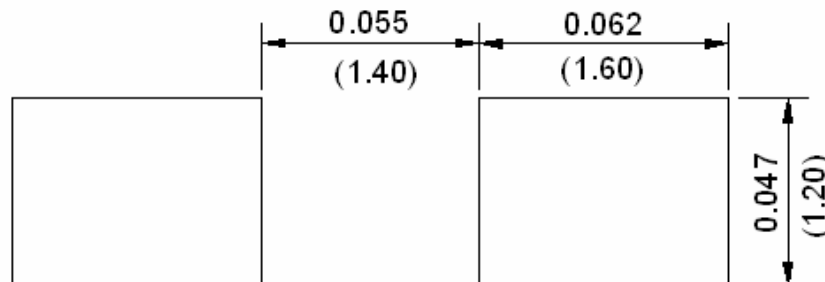
BAV19WS/BAV20WS/BAV21WS

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

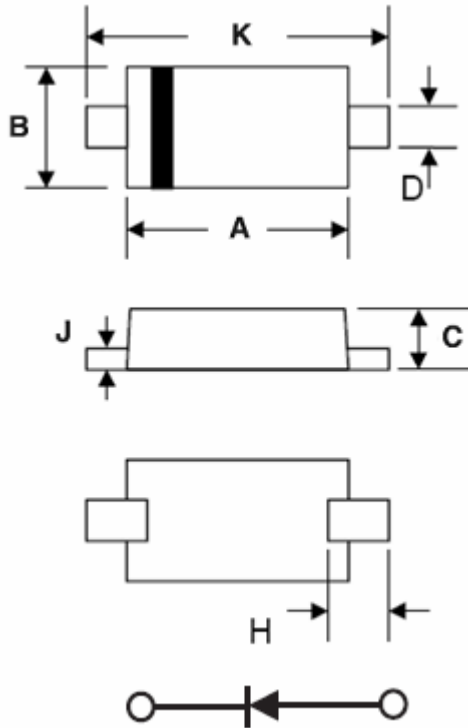
Mounting Pad Layout in inch (mm)



Two Terminals SMD Switching

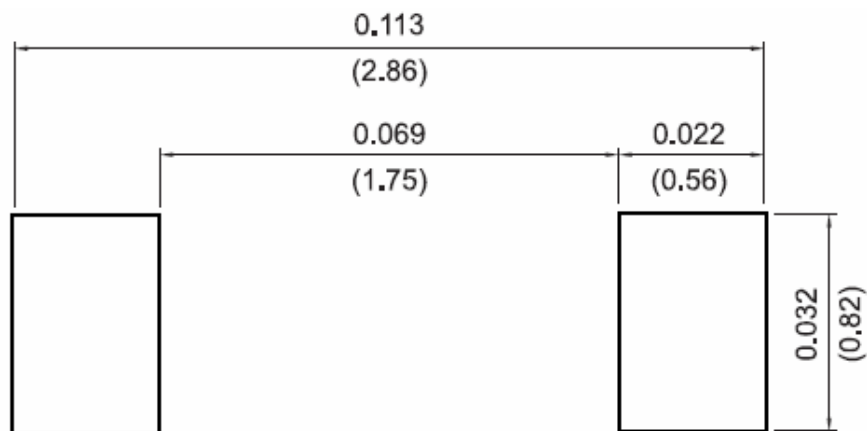
BAV19WS/BAV20WS/BAV21WS

SOD-323F Outline Dimensions



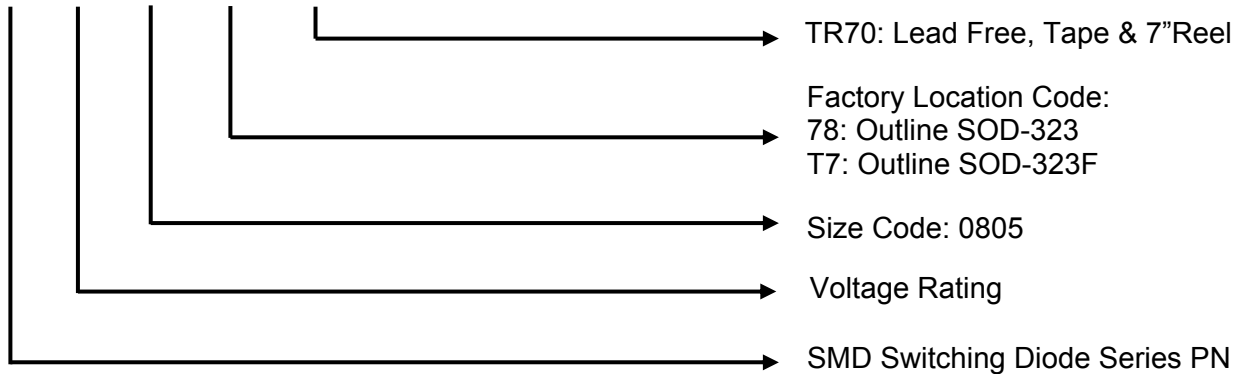
DIM	inch		mm	
	Min	Max	Min	Max
A	0.069	0.077	1.75	1.95
B	0.045	0.053	1.15	1.35
C	0.028	0.037	0.70	0.95
D	0.010	0.014	0.25	0.35
H	0.012	-	0.30	-
J	0.002	0.006	0.05	0.15
K	0.091	0.106	2.30	2.70

Mounting Pad Layout in inch (mm)



Ordering Information

BAV XX WS- XX-TR70



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