

BAV19WS thru BAV21WS Switching Diode

Features

- Small signal switching diode
- For general purpose
- RoHS compliant



+ **SOD-323**



RoHS
COMPLIANT

Absolute Maximum Ratings

($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	BAV19WS	BAV20WS	BAV21WS	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	I_{FM}	400			mA
Average Rectified Output Current	I_o	200			mA
Non-Repetitive Peak Forward Surge Current	I_{FSM}	2.5 @t=1.0ms			A
		0.5 @t=1.0s			A
Power Dissipation	P_D	200			mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	500			$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +150			$^\circ\text{C}$

Electrical Characteristics

($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Condition	Rating		Unit
			Min	Max	
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R=100\mu\text{A}$	BAV19WS	120	V
			BAV20WS	200	
			BAV21WS	250	
Forward Voltage	V_{FM}	$I_F=100\text{mA}$		1.0	V
		$I_F=200\text{mA}$		1.25	V
Peak Reverse Current @ Rated DC Blocking Voltage	I_{RM}	$T_J=25^\circ\text{C}$ $V_R=V_{RWM}$		100	nA
		$T_J=100^\circ\text{C}$ $V_R=V_{RWM}$		15	μA
Reverse Recovery Time	t_{rr}	$I_F=I_R=30\text{mA}$, $I_{rr}=0.1 \times I_R$, $R_i=100\Omega$		50	ns
Total Capacitance	C_T	$V_R=0$, $f=1.0\text{MHz}$		5.0	pF

Typical Electrical Characteristic Curves

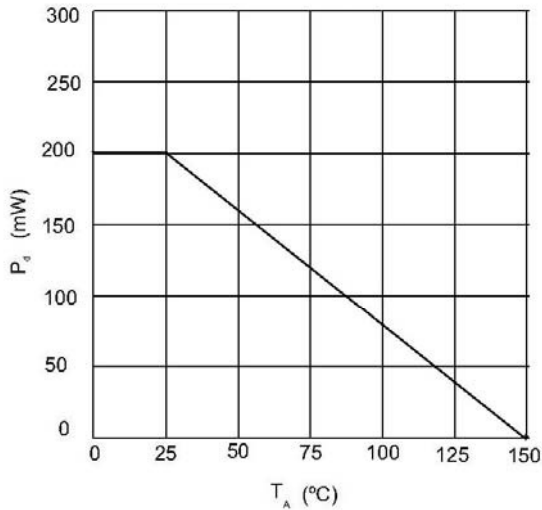


Figure 1. Power Dissipation

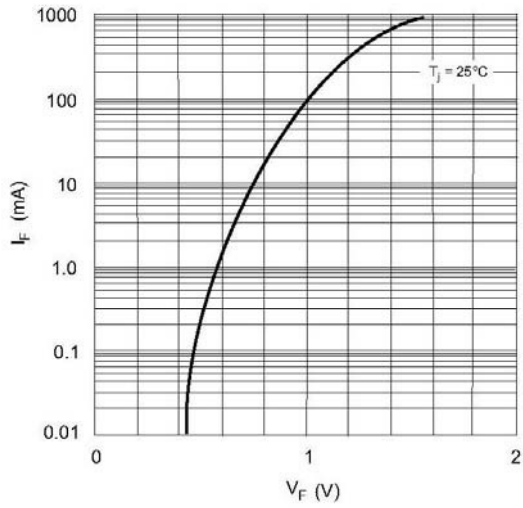


Figure 2. Forward Voltage

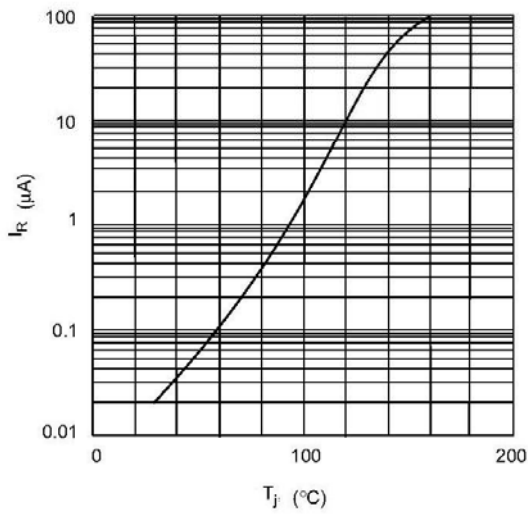
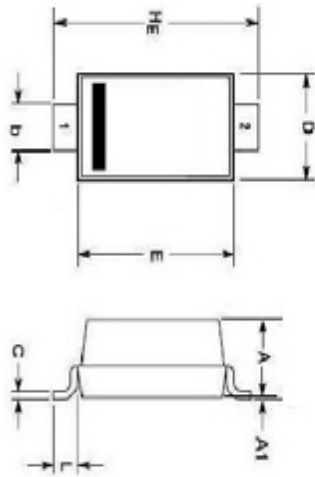


Figure 3. Reverse Leakage

Package Outline Dimensions

SOD-323



SOD-323		
	mm	
	min	max
A	0.80	1.00
A1	0.00	0.10
b	0.25	0.40
C	0.089	0.177
D	1.15	1.35
E	1.60	1.80
H_e	2.30	2.70
L	0.20	0.40

PIN: 1. CATHODE 2. ANODE