GOOD-ARK SEMICONDUCTOR

BAV19WS thru BAV21WS
Switching Diode

Features

- Fast Switching Device (T_{RR} <50nS)
- Power dissipation of 250mW
- High stability and high reliability
- Low reverse leakage

SOD-323

Mechanical Data

- SOD-323 Small Outline Plastic Package
- Epoxy UL: 94V-0
- Polarity: Color band denotes cathode end
- Mounting Position: Any

RoHS COMPLIANT

Absolute Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	Value			Unit
		BAV19WS	BAV20WS	BAV21WS	
Reverse Voltage	V_R	120	200	250	V
Peak Reverse Voltage	V_{RM}	100	150	250	V
Power Dissipation	P_d	250			mW
Operating Junction Temperature	T_J	150			°C
Storage Temperature Range	T_{STG}	-65 to +150			°C
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	500			°C/W
Working Inverse Voltage	W_{IV}	75			V
Average Rectified Current	I_O	200			mA
Non-Repetitive Peak Forward Current	I_{FM}	400			mA
Peak Forward Surge Current @t_p=1mS; T_A=25°C	I_{FSM}	1.7			A

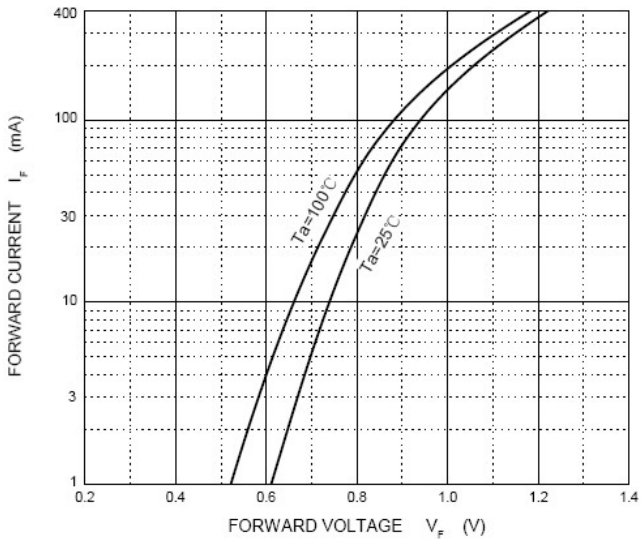
Valid provided that electrodes are kept at ambient temperature.

Electrical Characteristics (T_A=25°C unless otherwise noted)

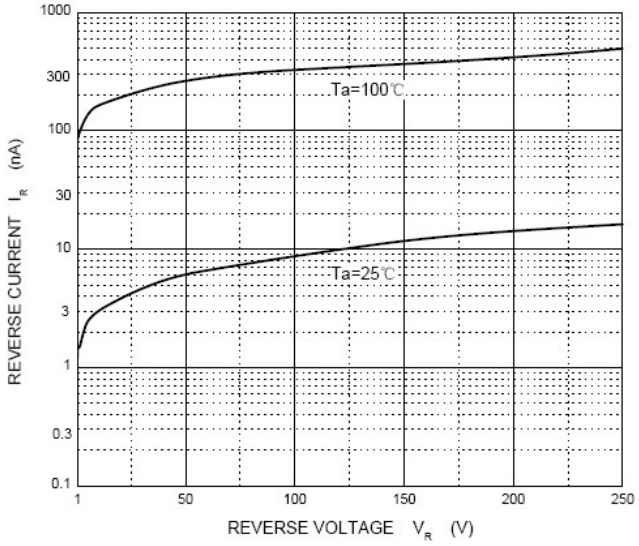
Parameter	Symbol	Test Condition	Value		Unit
			Min	Max	
Reverse Voltage	V_{RB}	I_B=100uA, BAV19WS	120	---	V
		BAV20WS	200		
		BAV21WS	250		
Reverse Leakage Current	I_R	V_R=100V BAV19WS V_R=150V BAV20WS V_R=200V BAV21WS	---	0.1	uA
Forward Voltage	V_F	I_F=100mA	---	1.00	V
		I_F=200mA	---	1.25	
Reverse Recovery Time	T_{RR}	I_F= 30mA, I_R=30mA R_L=100Ω I_{RR}=3mA	---	50	nS
Capacitance	C	V_R=0V, f=1MHZ	---	5	pF

Typical Electrical Characteristic Curves

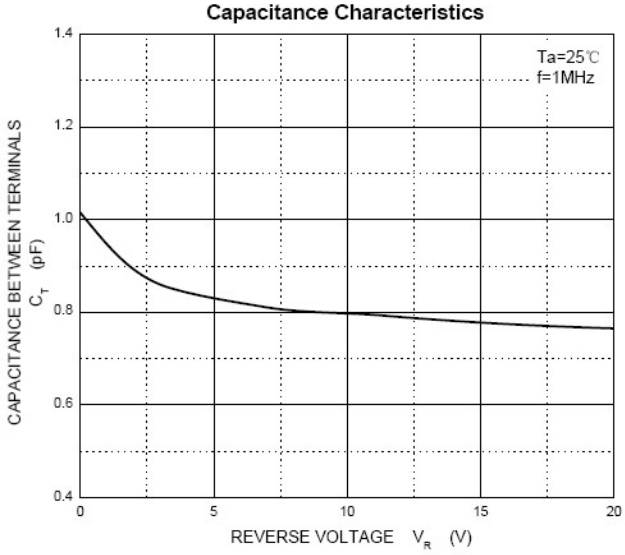
Forward Characteristics



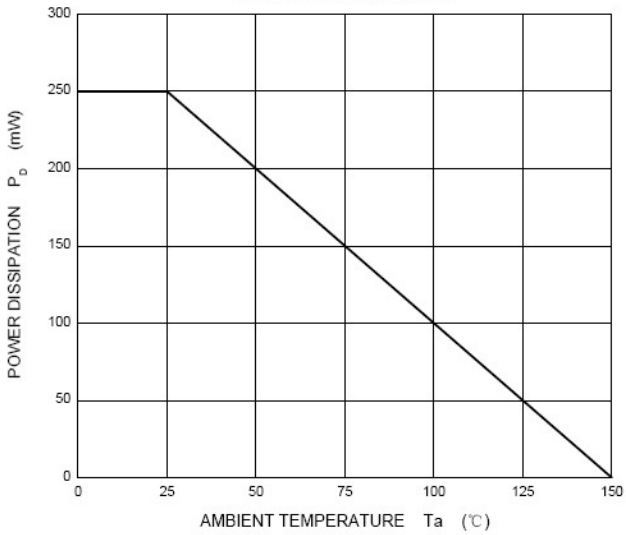
Reverse Characteristics



Capacitance Characteristics

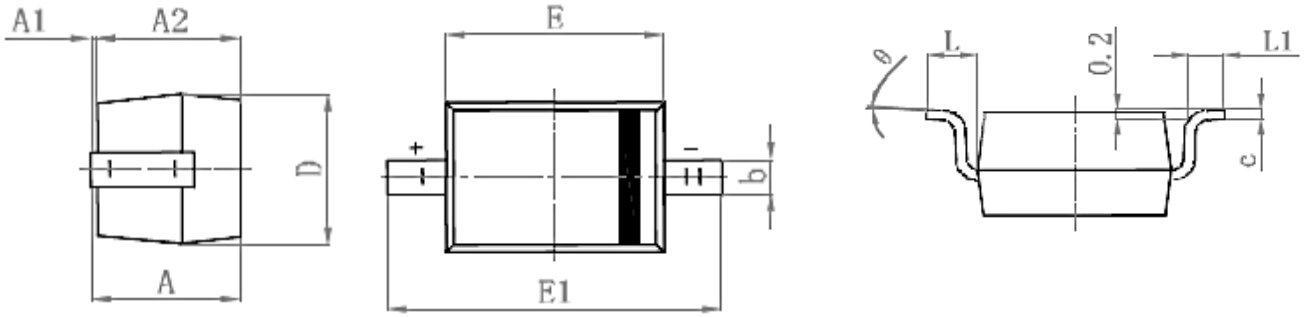


Power Derating Curve



Package Outline Dimensions

SOD-323



Symbol	Min.(mm)	Max.(mm)
A	---	1.000
A1	0.000	0.100
A2	0.800	0.900
b	0.250	0.350
c	0.080	0.150
D	1.200	1.400
E	1.600	1.800
E1	2.500	2.700
L	0.475REF	
L1	0.250	0.400
θ	0°	8°