

## 250mW SOD-323 Fast Switching Diode

### Features

- 50nS; Fast Switching Device (TRR <50 nS)
- 250mW; Power Dissipation of 250mW
- High Stability and High Reliability
- Low reverse leakage



**RoHS**  
COMPLIANT



**Marking :** SOD-323

BAV19WS: A8

BAV20WS: T2

BAV21WS: T3

### Mechanical Data

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

### Maximum Ratings & Thermal Characteristics (T<sub>A</sub>=25°C unless otherwise noted)

Parameters	Symbol	Value			Unit
		BAV19WS	BAV20WS	BAV21WS	
Reverse Voltage	V <sub>R</sub>	120	200	250	V
Peak Reverse Voltage	V <sub>RM</sub>	100	150	250	V
Power Dissipation	P <sub>D</sub>	250			mW
Operating junction temperature	T <sub>J</sub>	150			°C
Storage temperature range	T <sub>S</sub>	-65-+150			°C
Working Inverse Voltage	W <sub>IV</sub>	75			V
Thermal Resistance from Junction to Ambient	R <sub>θJA</sub>	500			°C/W
Average Rectified Current	I <sub>O</sub>	200			mA
Non-repetitive Peak Forward Current	I <sub>FM</sub>	400			mA
Peak Forward Surge Current @tp=1ms; T <sub>A</sub> =25 °C	I <sub>FSM</sub>	1.7			A

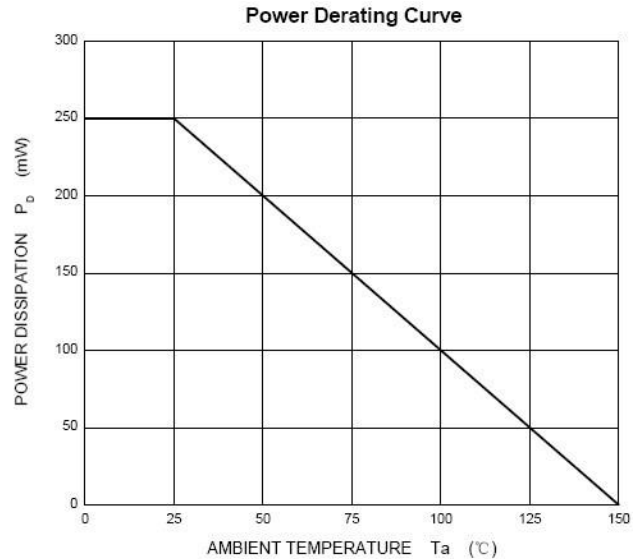
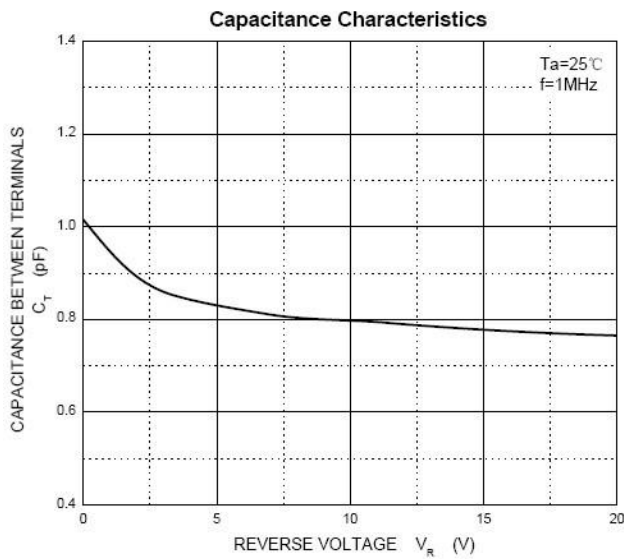
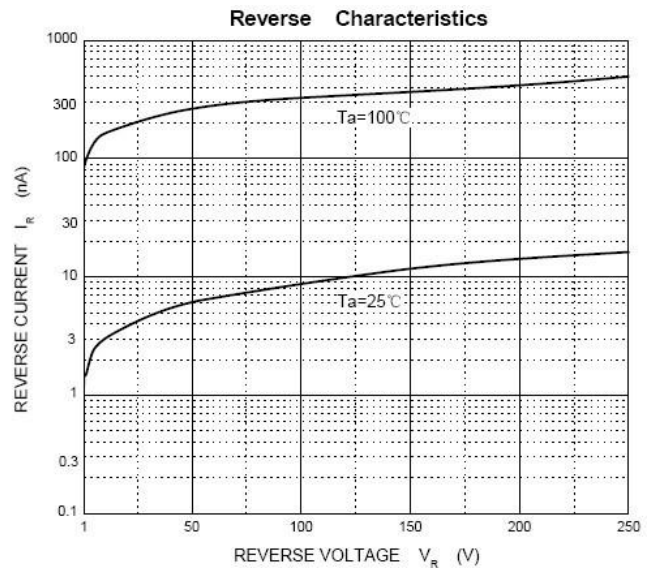
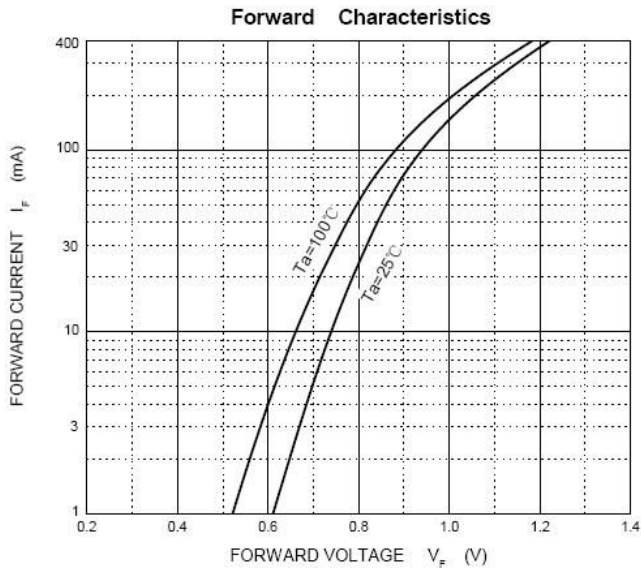
Valid provided that electrodes are kept at ambient temperature.

### Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise noted)

Parameter	Symbols	Test Condition	Limits		Unit
			Min	Max	
Reverse Voltage	V <sub>(BR)</sub>	IB=100uA BAV19WS BAV20WS BAV21WS	120 200 250		V
Reverse Leakage Current	I <sub>R</sub>	VR=100V BAV19WS VR=150V BAV20WS VR=200V BAV21WS		0.1	uA
Forward Voltage	V <sub>F</sub>	IF=100mA		1.00	V
		IF=200mA		1.25	
Reverse Recovery Time	T <sub>RR</sub>	IF = IR = 30mA, Irr=3mA RL=100Ω		50	nS
Capacitance	C <sub>j</sub>	VR=0V, f=1MHZ		5	pF

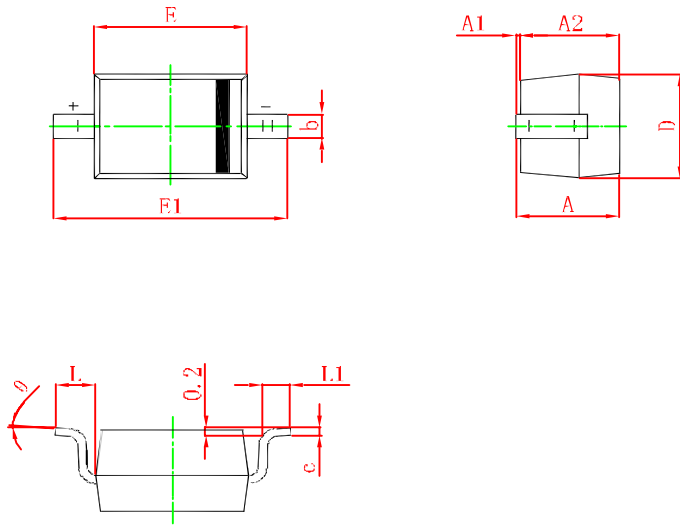
## Ratings and Characteristics Curves

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



## Package Outline Dimensions

millimeters



Symbol	Min	Max
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
$\theta$	0°	8°

## Revision History

Document Version	Date of release	Description of changes
Rev.A	2016.04.10	First issue

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