

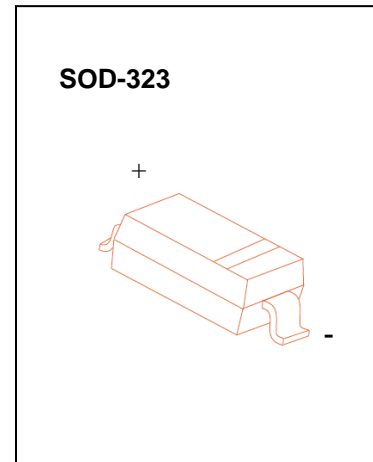
# BAV21WS

## SWITCHING DIODE

### FEATURES

Fast Switching Speed  
Surface Mount Package Ideally Suited for Automatic Insertion  
For General Purpose Switching Applications  
High Conductance

MARKING: BAV19WS : A8  
BAV20WS : T2  
BAV21WS : T3



### Maximum Ratings and Electrical Characteristics, Single Diode @T<sub>A</sub>=25°C

Parameter	Symbo	BAV19WS	BAV20WS	BAV21WS	Unit
Non-Repetitive Peak reverse voltage	V <sub>RM</sub>	120	200	250	V
Peak Repetitive Peak reverse voltage	V <sub>RRM</sub>				
Working Peak Reverse Voltage	V <sub>RWM</sub>	100	150	250	V
DC Blocking Voltage	V <sub>R</sub>				
RMS Reverse Voltage	V <sub>R(RMS)</sub>	71	106	141	V
Average Rectified Output Current	I <sub>O</sub>		200		mA
Peak forward surge current @=1.0ms @=1.0s	I <sub>FSM</sub>		2.0 0.5		A
Repetitive Peak Forward Current	I <sub>FRM</sub>		625		mA
Power Dissipation	P <sub>d</sub>		250		mW
Thermal Resistance Junction to Ambient	R <sub>θJA</sub>		500		°C/W
Junction temperature	T <sub>j</sub>		150		°C
Storage temperature	T <sub>STG</sub>		-65~+150		°C

### Electrical Ratings @T<sub>A</sub>=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V <sub>F1</sub>			1.0	V	I <sub>F</sub> =0.1A
	V <sub>F2</sub>			1.25		I <sub>F</sub> =0.2A
Reverse current	I <sub>R</sub>			0.1	μA	V <sub>R</sub> =100V
				0.1		V <sub>R</sub> =150V
				0.1		V <sub>R</sub> =200V
Capacitance between terminals	C <sub>T</sub>			5	pF	V <sub>R</sub> =0V, f=1MHz
Reverse Recovery Time	t <sub>rr</sub>			50	ns	I <sub>F</sub> =I <sub>R</sub> =30mA I <sub>rr</sub> =0.1X I <sub>R</sub> , R <sub>L</sub> =100Ω

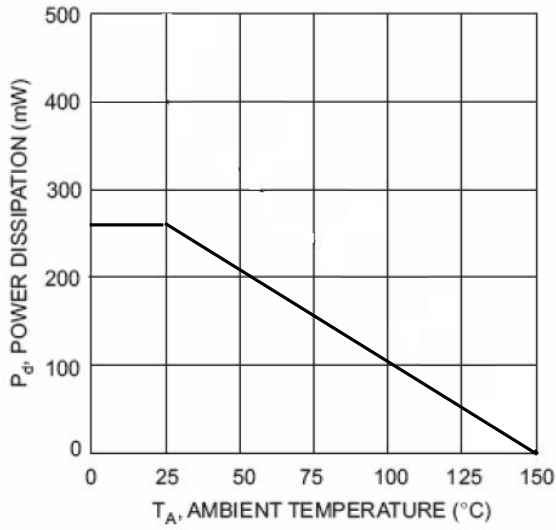


Fig. 1 Power Derating Curve

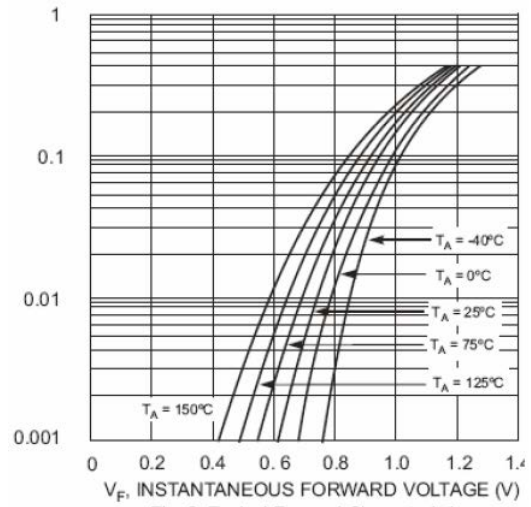


Fig. 2 Typical Forward Characteristics

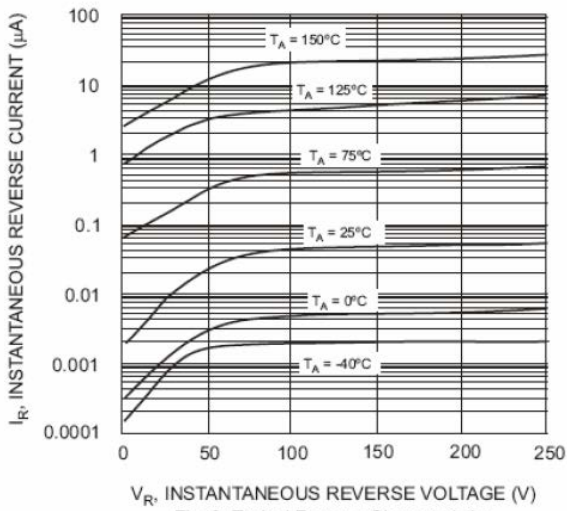


Fig. 3 Typical Reverse Characteristics

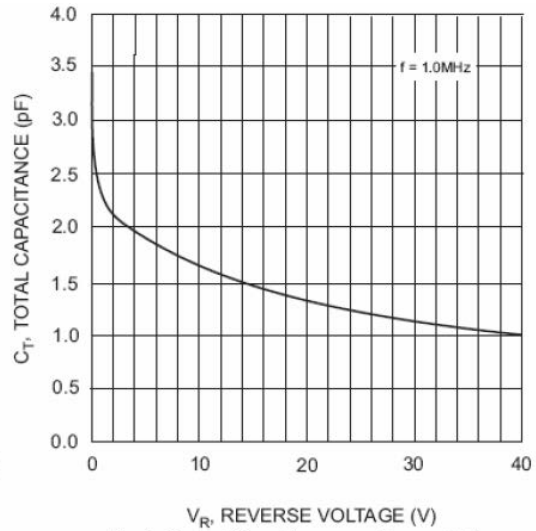
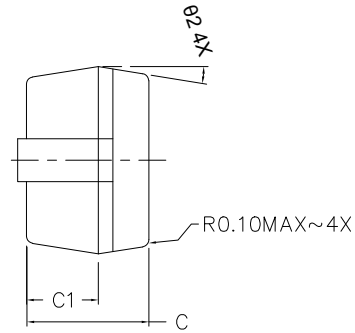
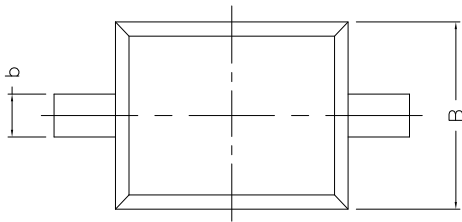
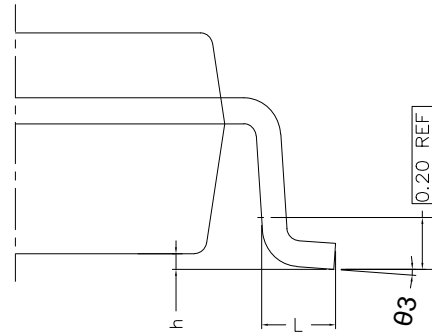
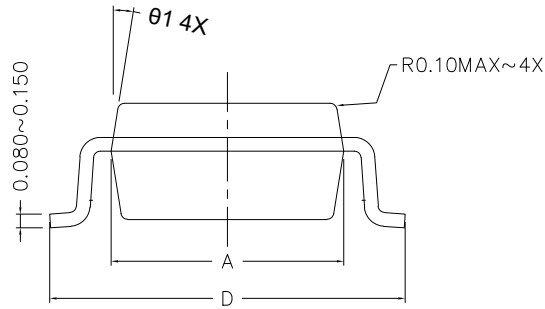


Fig. 4 Typical Capacitance vs. Reverse Voltage

### SOD-323 Package Outline Dimensions (Units: mm)



COMMON DIMENSIONS (UNITS OF MEASURE IS mm)			
	MIN	NORMAL	MAX
A	1.600	1.700	1.800
B	1.200	1.300	1.400
C	0.750	0.850	0.950
C1	0.450	0.500	0.550
D	2.450	2.600	2.750
L	0.200	0.300	0.400
b	0.200	0.300	0.400
h	0.010	0.050	0.100
<b>θ1</b>	9° TYPE		
<b>θ2</b>	9° TYPE		
<b>θ3</b>	0° ~ 8°		