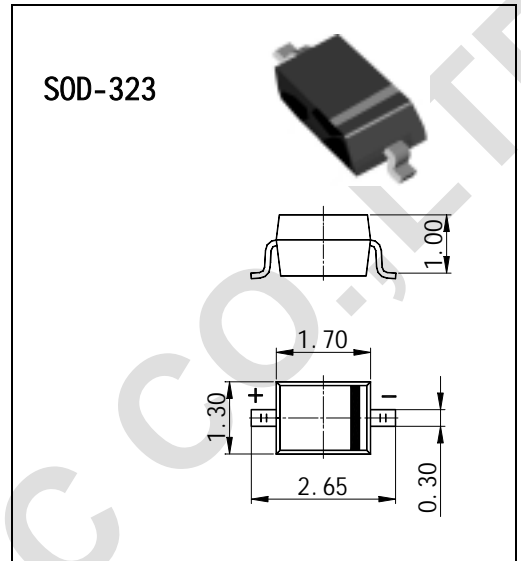


### Features

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



### Maximum Ratings @ T<sub>A</sub> = 25°C unless otherwise specified

Characteristic	Symbol	BAV19WS	BAV20WS	BAV21WS	Unit
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	120	200	250	V
Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RWM</sub> V <sub>R</sub>	100	150	200	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	71	106	141	V
Forward Continuous Current (Note 1)	I <sub>FM</sub>		400		mA
Average Rectified Output Current (Note 1)	I <sub>O</sub>		200		mA
Non-Repetitive Peak Forward Surge Current @ t = 1.0μs @ t = 1.0s	I <sub>FSM</sub>		2.5 0.5		A
Repetitive Peak Forward Surge Current	I <sub>FRM</sub>		625		mA
Power Dissipation	P <sub>d</sub>		200		mW
Thermal Resistance Junction to Ambient Air (Note 1)	R <sub>θJA</sub>		625		K/W
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>		-65 to +150		°C

### Electrical Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified

Characteristic	Symbol	Min	Max	Unit	Test Condition
Forward Voltage	V <sub>FM</sub>	—	1.0 1.25	V	I <sub>F</sub> = 100mA I <sub>F</sub> = 200mA
Peak Reverse Current @ Rated DC Blocking Voltage	I <sub>RM</sub>	—	100 15	nA μA	T <sub>j</sub> = 25°C T <sub>j</sub> = 100°C
Junction Capacitance	C <sub>j</sub>	—	5.0	pF	V <sub>R</sub> = 0, f = 1.0MHz
Reverse Recovery Time	t <sub>rr</sub>	—	50	ns	I <sub>F</sub> = I <sub>R</sub> = 30mA, I <sub>rr</sub> = 0.1 x I <sub>R</sub> , R <sub>L</sub> = 100Ω

Note: 1. Valid provided that terminals are kept at ambient temperature.

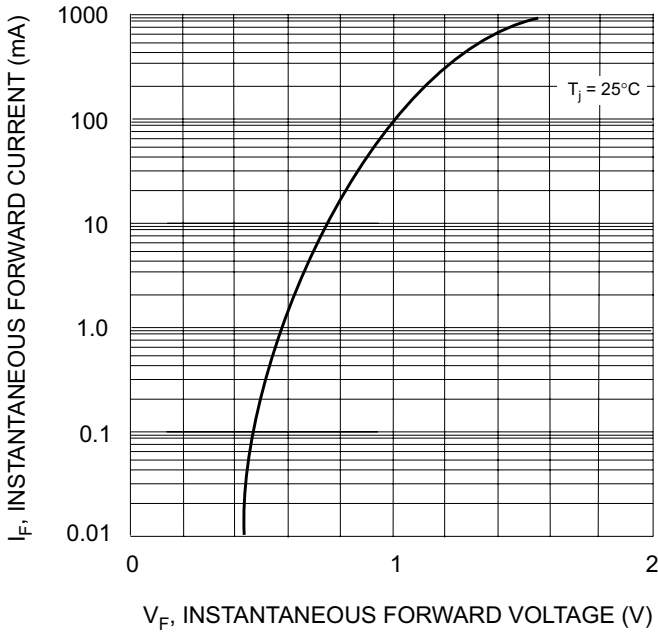


Fig. 1 Forward Characteristics

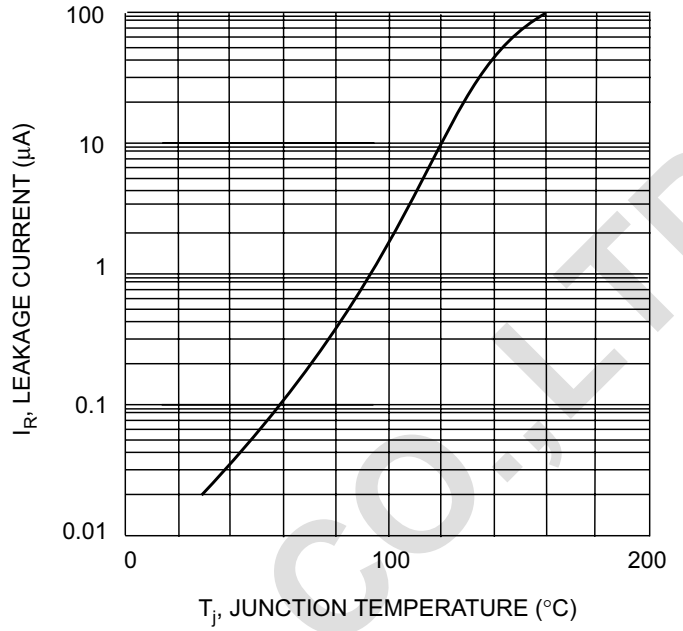
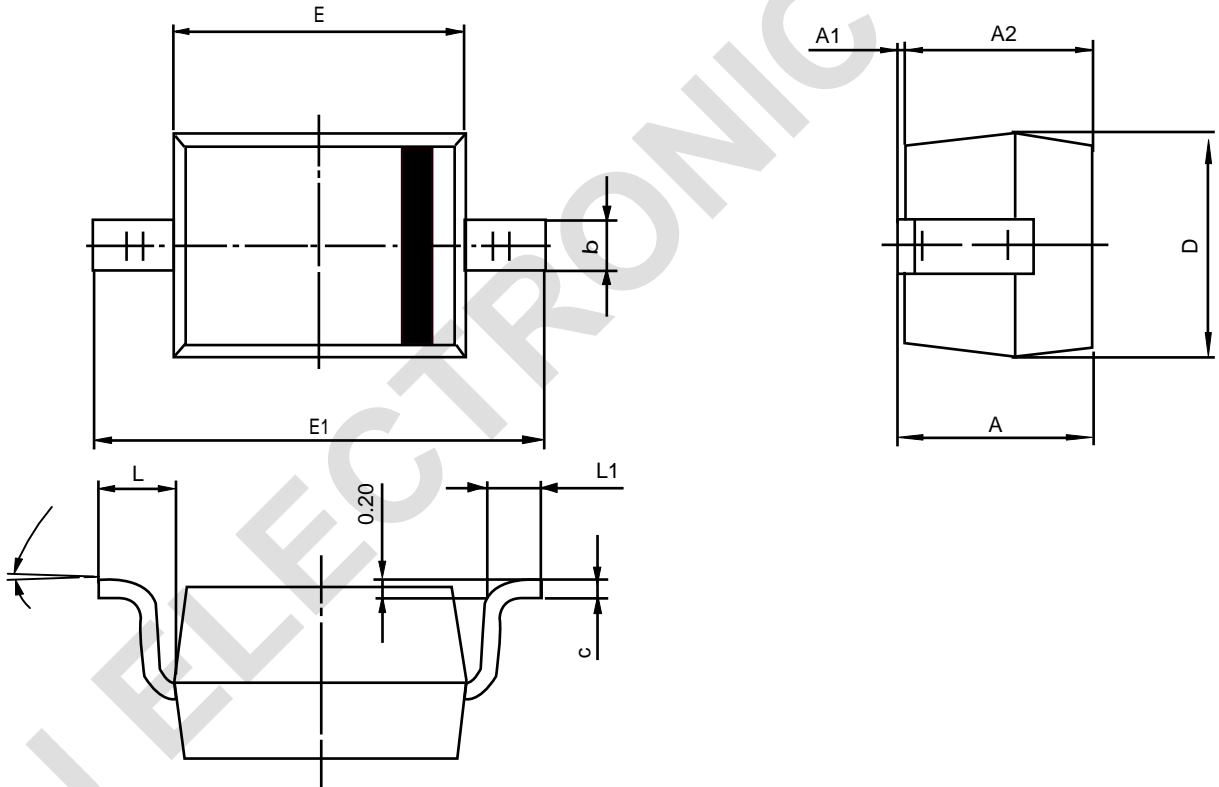


Fig. 2 Leakage Current vs Junction Temperature



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	1.200	1.400	0.047	0.055
E	1.600	1.800	0.063	0.071
E1	2.500	2.800	0.098	0.110
L	0.475REF		0.019REF	
L1	0.250	0.450	0.010	0.018
$\theta$	0°	8°	0°	8°