

## Surface mount switching diode FEATURES

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

## APPLICATIONS

- Surface mount fast switching diode



## ORDERING INFORMATION

Type No.	Marking	Package Code
BAV19W	A8	SOD-123
BAV20W	T2	SOD-123
BAV21W	T3	SOD-123

## MAXIMUM RATING @ Ta=25°C unless otherwise specified

Characteristic	Symbol	BAV19W	BAV20W	BAV21W	Unit
Non-Repetitive Peak Reverse Voltage	$V_{RM}$	120	200	250	V
Peak Repetitive Reverse Voltage	$V_{RRM}$				
Working Peak Reverse Voltage	$V_{RWM}$	100	150	200	V
DC Reverse Voltage	$V_R$				
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 @t=1.0 $\mu$ s	$I_{FSM}$	2.5			A
@t=1.0 s		0.5			
Repetitive Peak Forward Surge Current	$I_{FRM}$	625			mA
Power Dissipation	$P_d$	250			mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	500			$^{\circ}C/W$
Operating and Storage Temperature Range	$T_j, T_{STG}$	-65 to+150			$^{\circ}C$

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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Characteristic	Symbol	Min	Max	Unit	Test Condition
Maximum Forward Voltage	V <sub>F1</sub> V <sub>F2</sub>	-	1.0 1.25	V	I <sub>F</sub> =100mA I <sub>F</sub> =200mA
Reverse Current BAV19W BAV20W BAV21W	I <sub>R</sub>	-	0.1	μA	V <sub>R</sub> =100V V <sub>R</sub> =150V V <sub>R</sub> =200V
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×I <sub>R</sub> , R <sub>L</sub> =100Ω

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

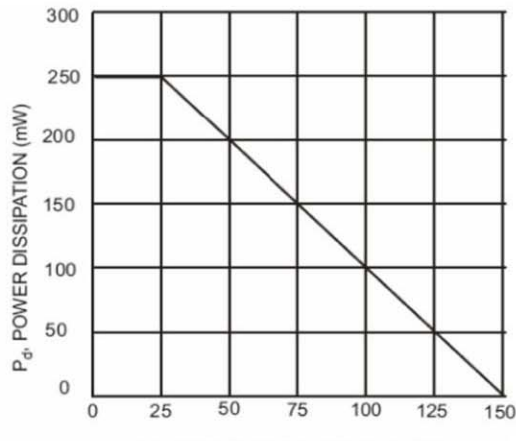


Fig. 1 Power Derating Curve

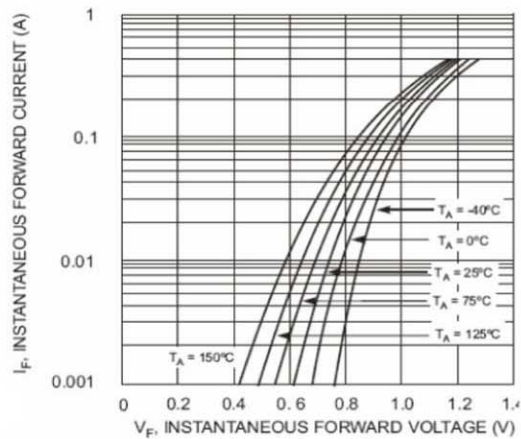


Fig. 2 Typical Forward Characteristics

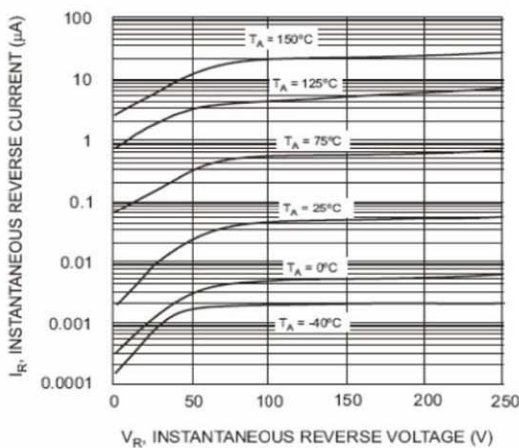


Fig. 3 Typical Reverse Characteristics

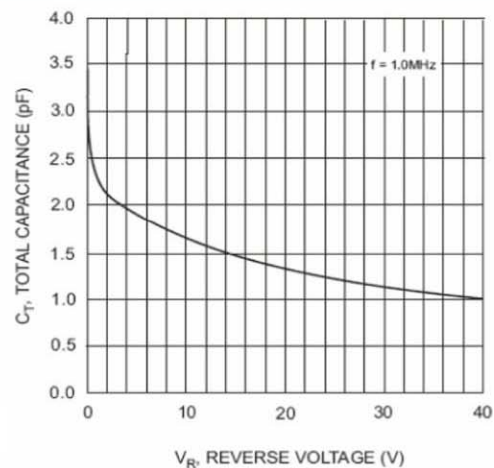
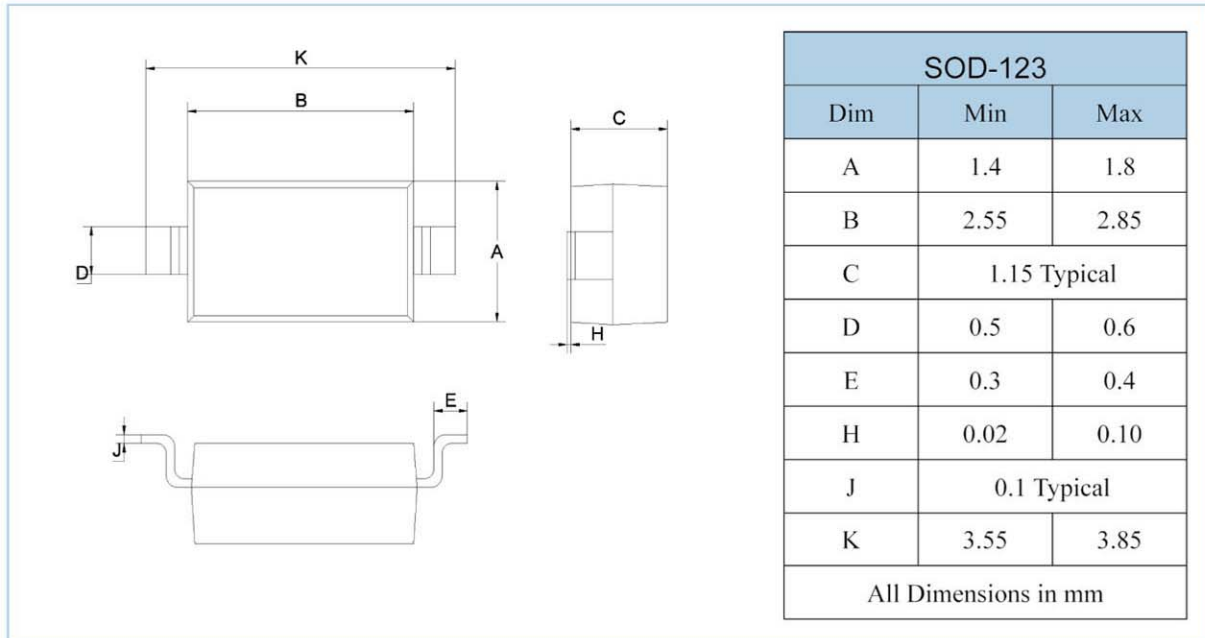


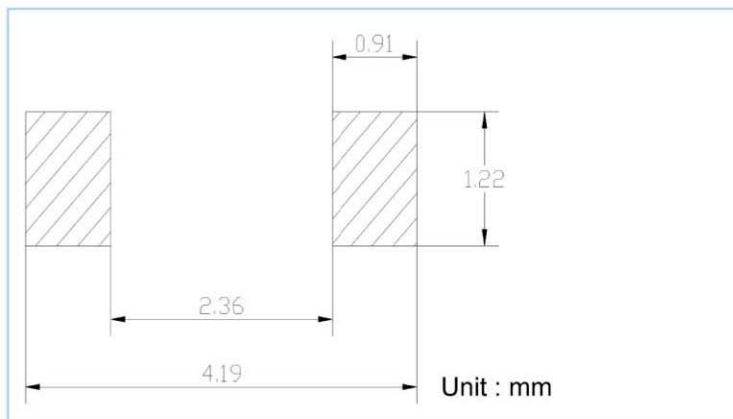
Fig. 4 Typical Capacitance vs. Reverse Voltage

Surface mount switching diode  
PACKAGE OUTLINE

Plastic surface mounted package



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
BAV19W/20W/21W	SOD-123	3000/Tape&Reel