

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 μs	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	$R_{θJA}$	500			°C/W
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to+150			°C

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CONSCIOUS PRODUCTS BEGIN WITH CONSCIOUS PEOPLE

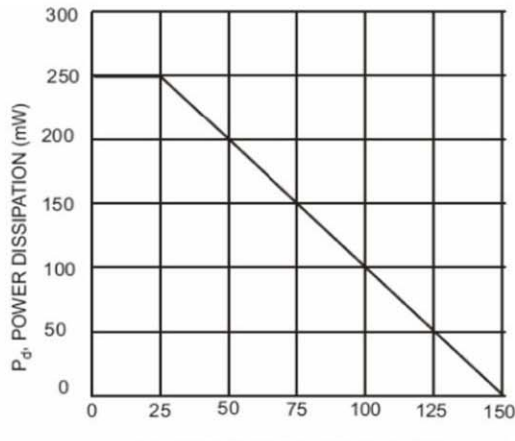


Surface mount switching diode

ELECTRICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Min	Max	Unit	Test Condition
Maximum Forward Voltage	V_{F1} V_{F2}	-	1.0 1.25	V	$I_F=100\text{mA}$ $I_F=200\text{mA}$
Reverse Current BAV19W BAV20W BAV21W	I_R	-	0.1	μA	$V_R=100\text{V}$ $V_R=150\text{V}$ $V_R=200\text{V}$
Junction Capacitance	C_j	-	5.0	pF	$V_R=0, f=1.0\text{MHz}$
Reverse Recovery Time	t_{rr}	-	50	ns	$I_F=I_R=30\text{mA}$, $I_{rr}=0.1 \times I_R, R_L=100\Omega$

TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified



T_A , AMBIENT TEMPERATURE ($^\circ\text{C}$)
Fig. 1 Power Derating Curve

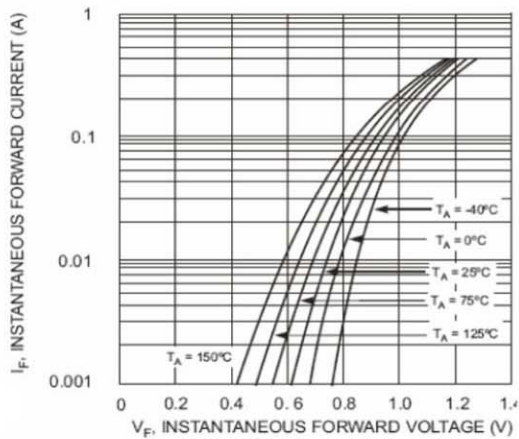
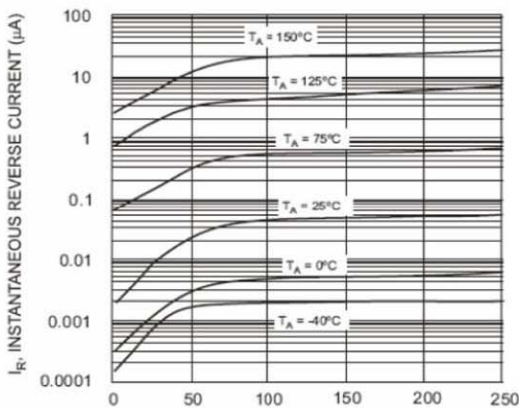
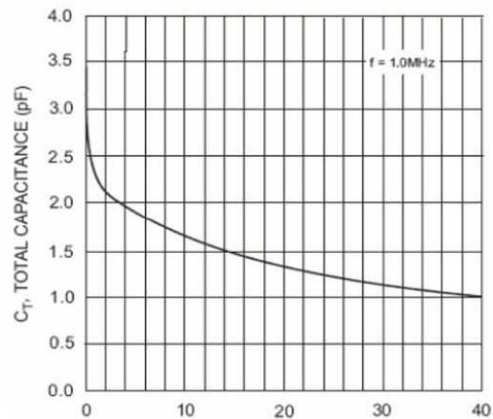


Fig. 2 Typical Forward Characteristics



V_R , INSTANTANEOUS REVERSE VOLTAGE (V)
Fig. 3 Typical Reverse Characteristics



V_R , REVERSE VOLTAGE (V)
Fig. 4 Typical Capacitance vs. Reverse Voltage

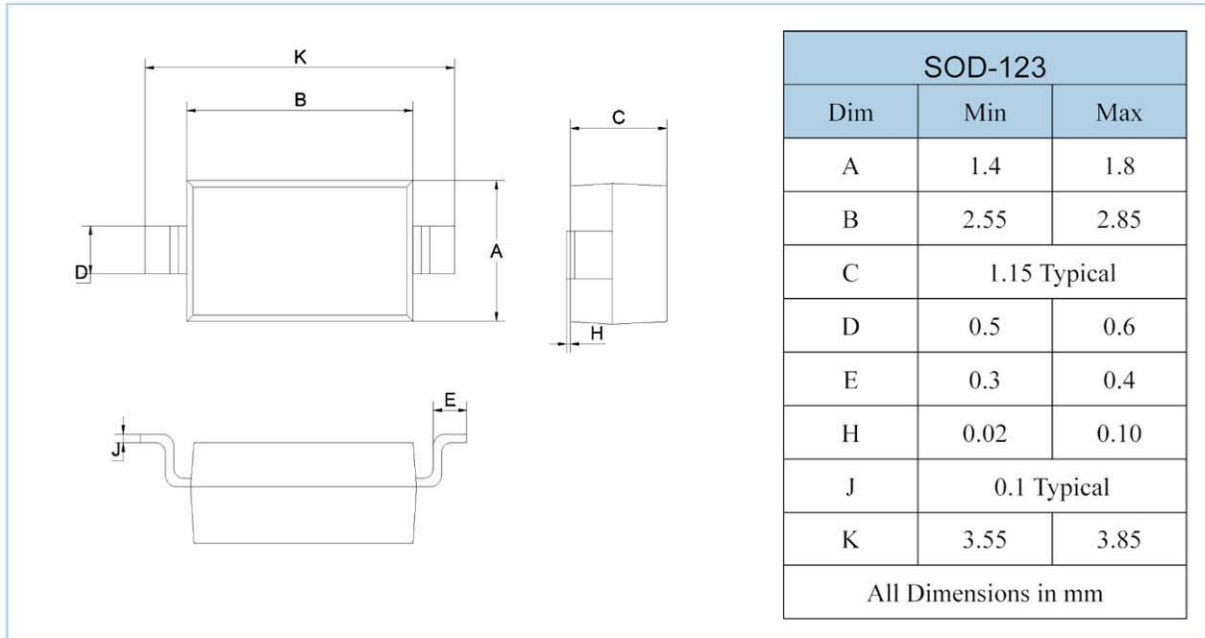
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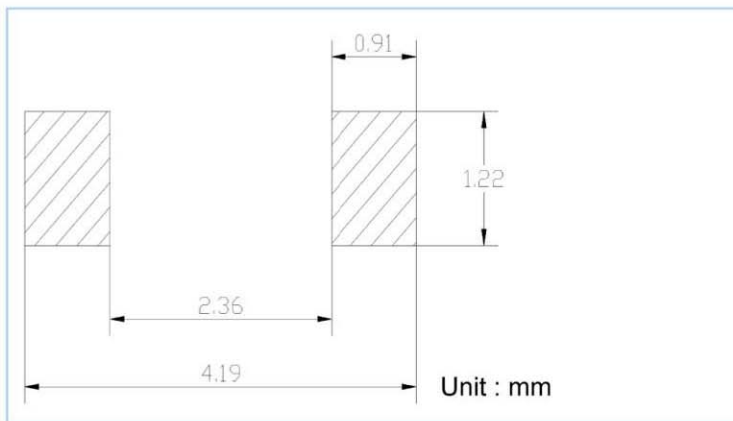


Surface mount switching diode
PACKAGE OUTLINE

Plastic surface mounted package



SOLDERING FOOTPRINT



PACKAGE INFORMATION

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

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