



DESCRIPTION

The BAV19W~ BAV21W is available in SOD-123 Packages

FEATURES

- Fast Switching Speed.
- Surface Mount Package Ideally Suited For Automatic Insertion
- For General Purpose Switching Applications.
- RoHS Compliant
- Available in SOD-123 Packages

ORDERING INFORMATION

Package Type	Part Number
SOD-123	BAV19W
	BAV20W
	BAV21W
Note	SPQ: 3,000pcs/Reel
AiT provides all RoHS Compliant Products	

APPLICATIONS

- Surface mount fast switching diode



ABSOLUTE MAXIMUM RATINGS

@T_A= 25°C, unless otherwise specified

Parameter	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
OC 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=1.0μs @t=1.0s	I _{FSM}	2.5 0.5			A
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 ~ +150			°C

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

ELECTRICAL CHARACTERISTICS

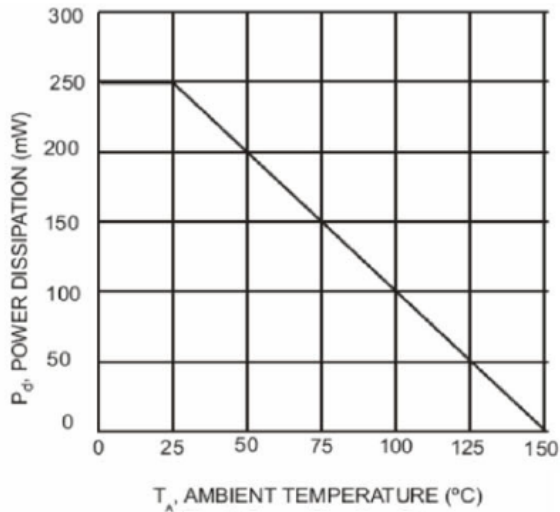
Parameter	Symbol	Conditions	Min.	Max.	Unit
Maximum Forward Voltage	V _{F1}	I _F =100mA		1.0	V
	V _{F2}	I _F =200mA		1.25	
Reverse Current	I _R	V _R =100V	BAV19W	0.1	μA
		V _R =150V	BAV20W		
		V _R =200V	BAV21W		
Junction Capacitance	C _j	V _R =0 , f=1.0MHz		5.0	pF
Reverse Recovery Time	t _{rr}	I _F =I _R =30mA , I _{rr} =0.1x I _R , R _L =1000		50	ns



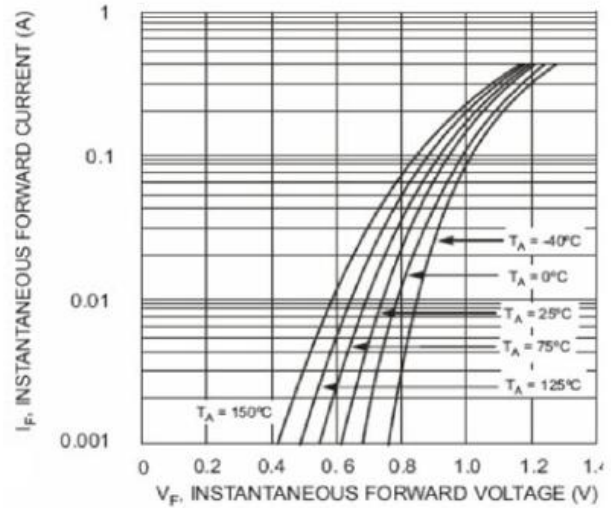
TYPICAL PERFORMANCE CHARACTERISTICS

@ $T_A = 25^\circ\text{C}$, unless otherwise specified

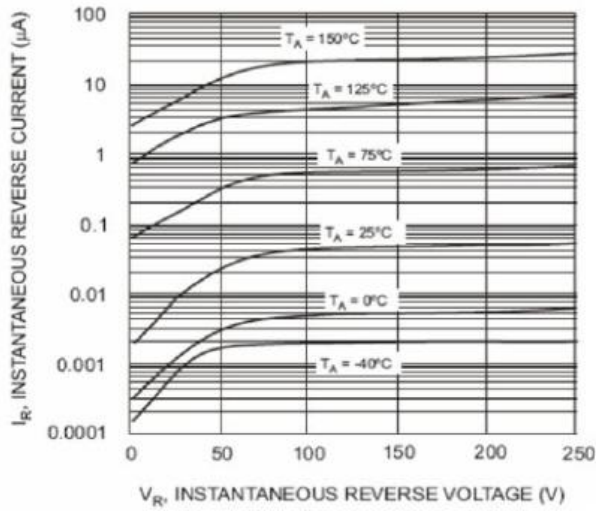
1. Power Derating Curve



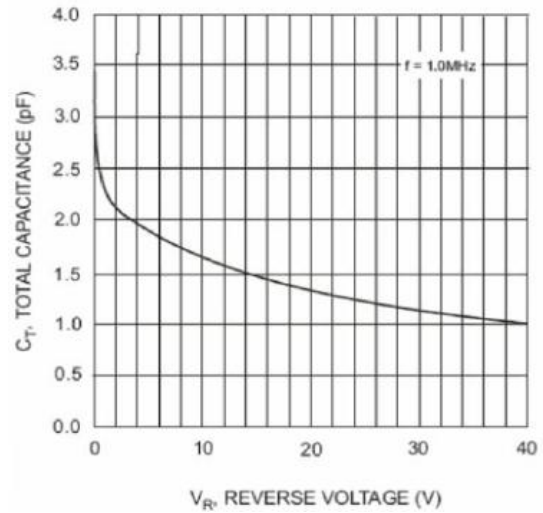
2. Typical Forward Characteristics



3. Typical Reverse Characteristics



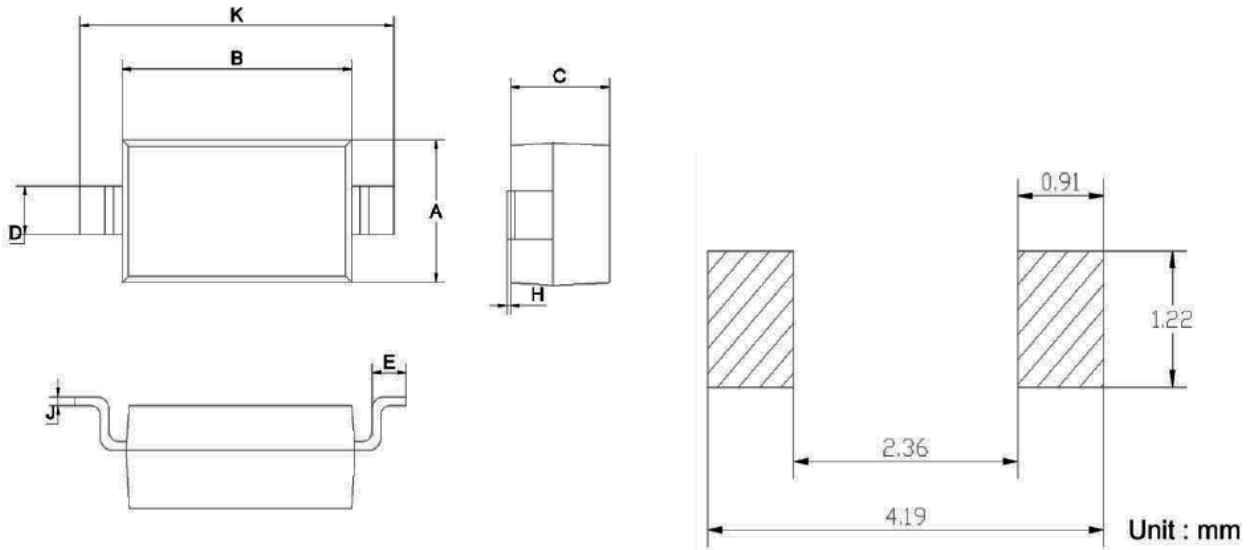
4. Typical Capacitance vs. Reverse Voltage





PACKAGE INFORMATION

Dimension in SOD-123 (Unit: mm)



Soldering Footprint

DIM	MIN	MAX
A	1.400	1.800
B	2.550	2.850
C	1.150 TYP.	
D	0.500	0.600
E	0.300	0.400
H	0.020	0.100
J	0.100 TYP.	
K	3.550	3.850



IMPORTANT NOTICE

AiT Components (AiT) reserves the right to make changes to any its product, specifications, to discontinue any integrated circuit product or service without notice, and advises its customers to obtain the latest version of relevant information to verify, before placing orders, that the information being relied on is current.

AiT Components' integrated circuit products are not designed, intended, authorized, or warranted to be suitable for use in life support applications, devices or systems or other critical applications. Use of AiT products in such applications is understood to be fully at the risk of the customer. As used herein may involve potential risks of death, personal injury, or severe property, or environmental damage. In order to minimize risks associated with the customer's applications, the customer should provide adequate design and operating safeguards.

AiT Components assumes no liability to customer product design or application support. AiT warrants the performance of its products of the specifications applicable at the time of sale.