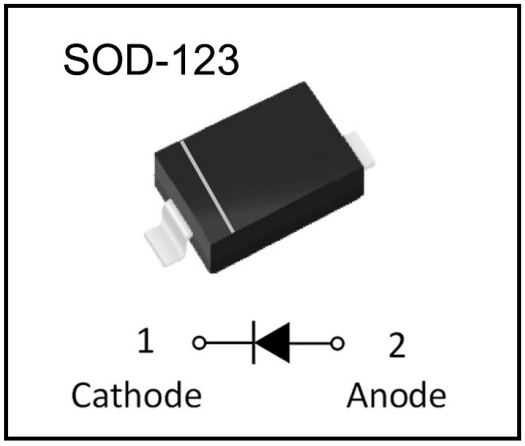
BAV19-21W

Fast Switching Diode

Features

- Fast Switching Device (T_{RR} <50 nS)
- Power Dissipation of 500mW
- High Stability and High Reliability
- Low reverse leakage

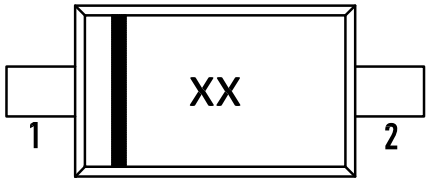
Package



Description

- SOD-123 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Mounting Position: Any

Marking



Ordering information

Order code	Package	Marking	Base qty	Delivery mode
BAV19W	SOD-123	A8	3K	Tape and reel
BAV20W	SOD-123	T2	3K	Tape and reel
BAV21W	SOD-123	T3	3K	Tape and reel

Maximum Ratings @T_A=25°C unless otherwise noted

Symbol	Parameter	Value			Unit
		BAV19W	BAV20W	BAV21W	
V_R	Reverse Voltage	100	150	250	V
V_{RM}	Peak Reverse Voltage	120	200	250	V
I_O	Average Rectified Current	200			mA
I_{FM}	Peak Forward Current	400			mA
I_{FSM}	Peak Forward Surge Current @t_p=1ns; T_A=25°C	2.5			A
P_d	Power Dissipation	500			mW
T_J	Operating junction temperature	150			°C
T_S	Storage temperature range	-55 to +150			°C

BORN SEMICONDUCTOR , INC. ALL RIGHT RESERVED

Specifications are subject to change without notice.
Please refer to http://*www.born-tw.com* for current information.

BAV19-21W

Fast Switching Diode

Electrical Characteristics @T_A=25°C unless otherwise noted

Symbol	Parameter	Test Conditions		Limits		Unit
				Min.	Max.	
V_{RB}	Reverse Voltage	I_B=100uA	BAV19W	120	–	V
			BAV20W	200		
			BAV21W	250		
I_R	Reverse Leakage Current	V_R=100V	BAV19W	–	0.1	uA
		V_R=150V	BAV20W	–		
		V_R=200V	BAV21W	–		
V_F	Forward Voltage	I_F=100mA		–	1.00	V
		I_F=200mA		–	1.25	
T_{RR}	Reverse Recovery Time	I_F =I_R=30mA		–	50	nS
		R_L = 100Ω				
		I_{RR} =3mA				
C_T	Capacitance	V_R = 0V, f=1MHZ		–	5	pF

BORN SEMICONDUCTOR , INC. ALL RIGHT RESERVED

Specifications are subject to change without notice.
Please refer to http://*www.born-tw.com* for current information.

BAV19-21W

Fast Switching Diode

Typical Performance Characteristics(T_J = 25 °C, unless otherwise noted)

Figure 1: Forward Characteristics

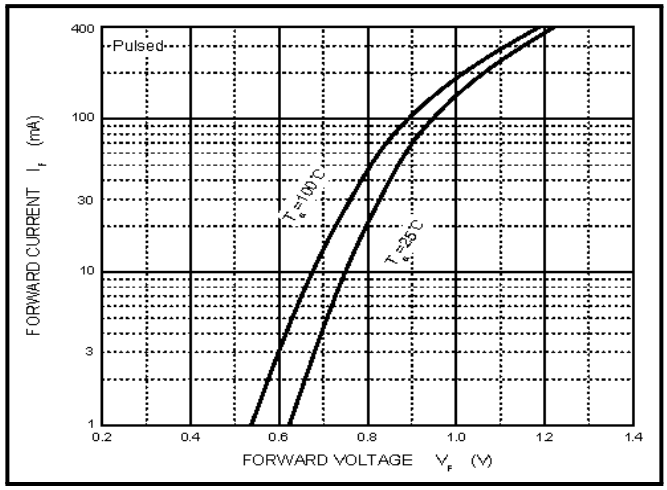


Figure 2: reverse Characteristics

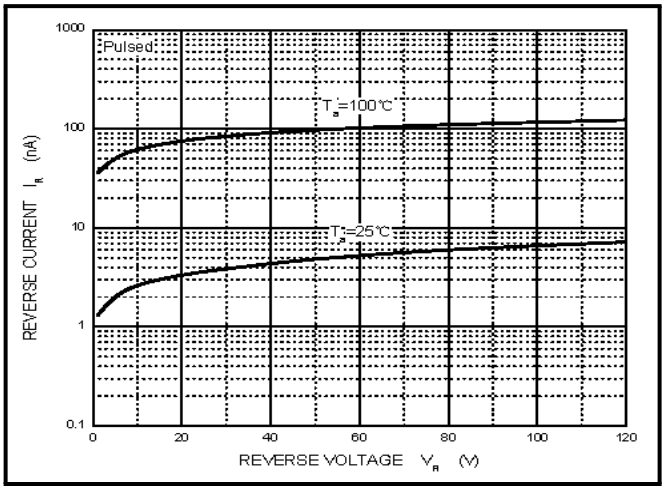


Figure 3: Capacitance Characteristics

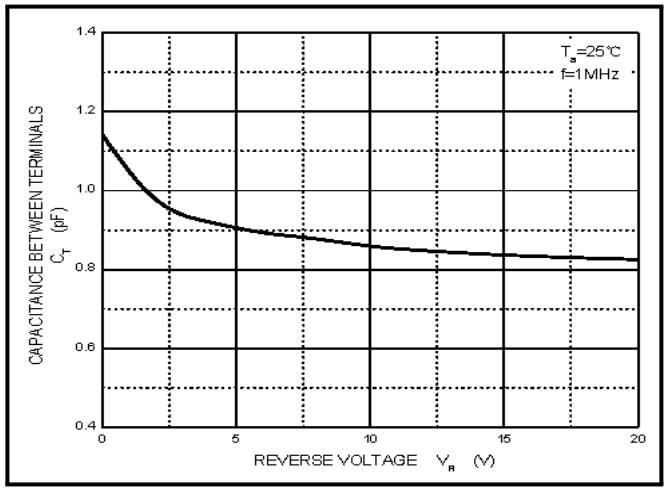
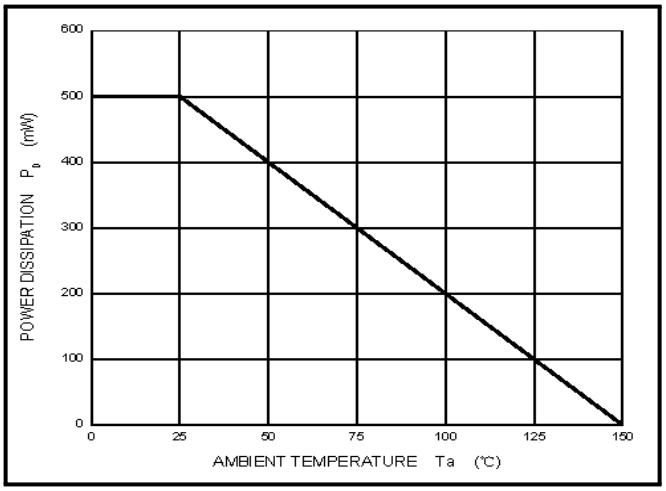


Figure 4: Power Derating Curve

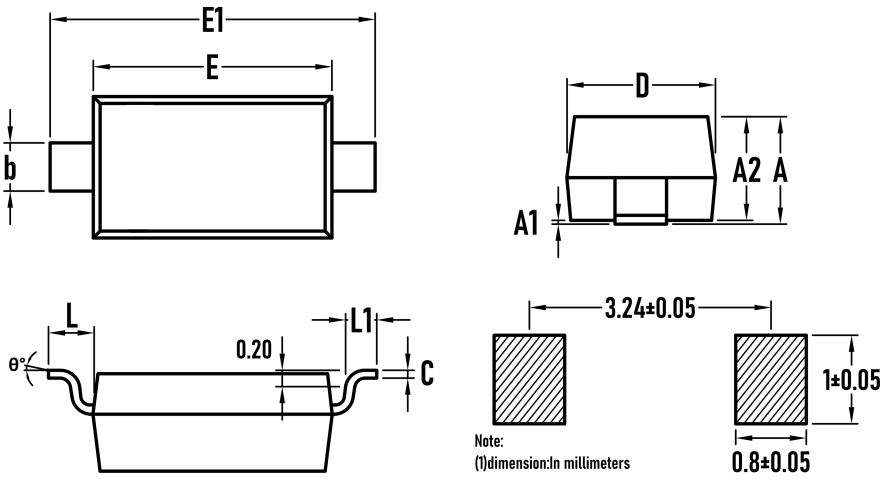


BORN SEMICONDUCTOR , INC. ALL RIGHT RESERVED

BAV19-21W

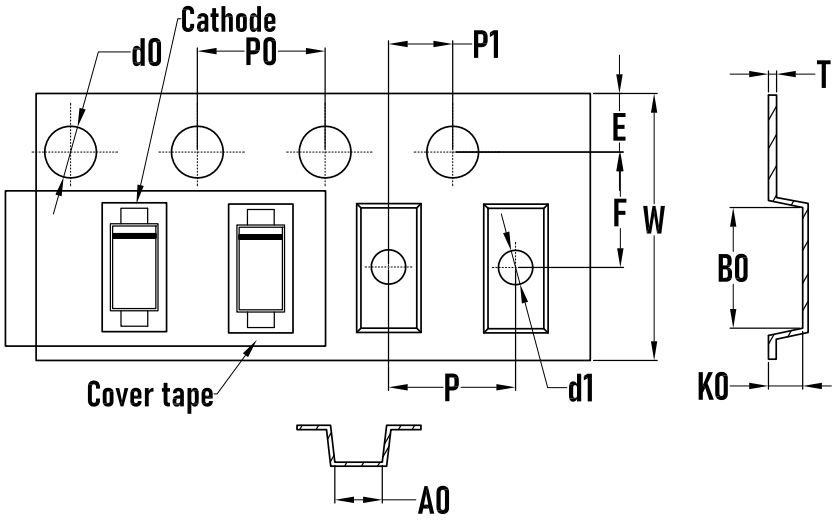
Fast Switching Diode

Package Information - SOD-123



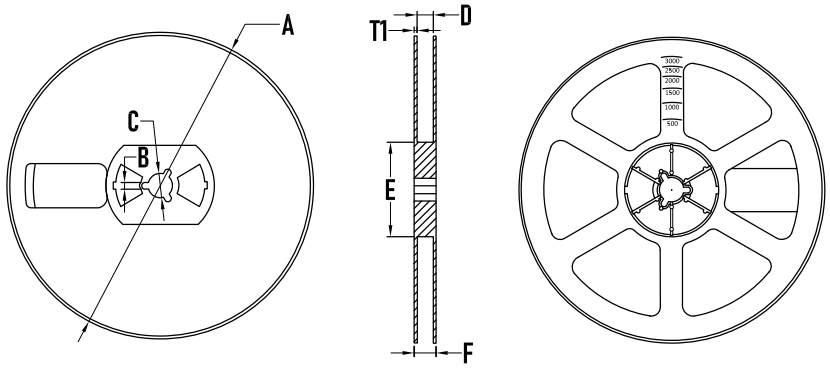
Symbol	Millimeters		Inches	
	MIN	MAX	MIN	MAX
A	0.950	1.350	0.037	0.053
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500REF		0.020REF	
L1	0.250	0.450	0.010	0.018
θ	0°	8°	0°	8°

Packaging Tape - SOD-123



SYMBOL	MILLIMETER
A0	2.10±0.1
B0	4.0 ±0.1
d0	1.5±0.1
d1	1.0±0.1
E	1.75±0.1
F	3.50±0.1
K0	1.25±0.1
P	4.00±0.1
P0	4.00±0.1
P1	2.00±0.1
W	8.00±0.1
T	0.2±0.02

Packaging Reel



SYMBOL	MILLIMETER
A	177.8±0.2
B	2.7±0.2
C	13.5±0.2
D	9.6±0.3
E	54.5±0.2
F	12.3±0.3
T1	1.0±0.2
Quantity	3000PCS

BORN SEMICONDUCTOR , INC. ALL RIGHT RESERVED

Specifications are subject to change without notice.
Please refer to http://*www.born-tw.com* for current information.

Revision: 2022-Jan-1-A