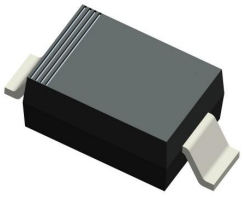
Technical Data
Data Sheet N0591, Rev. D

RoHS HF

BAV19W-BAV21W SURFACE MOUNT FAST SWITCHING DIODE



SOD-123

Features

- High Conductance
- Fast Switching
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications
- This is a Halogen Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Schematic & Pin Configuration

Mechanical Characteristics

- Case: SOD-123, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.01 grams(approx)

Maximum Ratings@T_A=25°C unless otherwise specified

Characteristic	Symbol	BAV19W	BAV20W	BAV21W	Units
Non-Repetitive Peak Reverse Voltage	V_{RM}	120	200	250	V
Peak Repetitive Peak Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	100	150	200	V
RMS Reverse Voltage	$V_{R(RMS)}$	71	106	141	
Average Rectified Output Current	I_O	200			mA
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) @t=8.3ms	I_{FSM}	2.0			A
Power Dissipation	P_d	500			mW
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	250			°C/W
Junction Temperature Range	T_J	150			°C
Storage Temperature Range	T_{STG}	-65 to +150			°C

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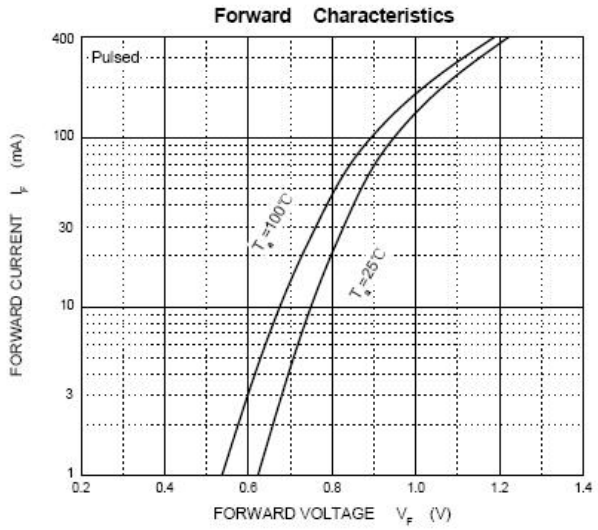
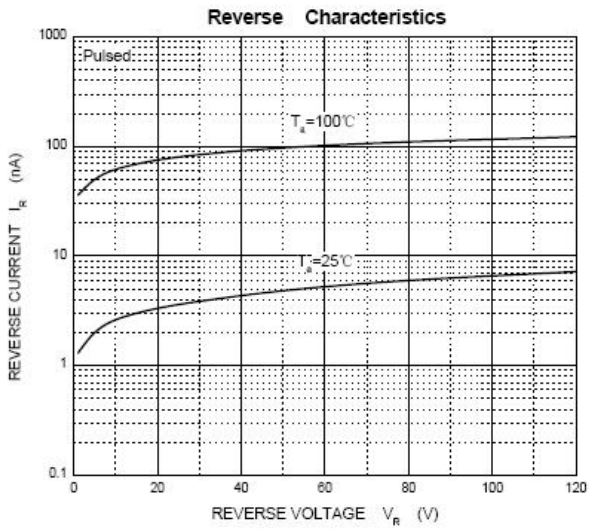
Electrical Characteristics@T_A=25°C unless otherwise specified

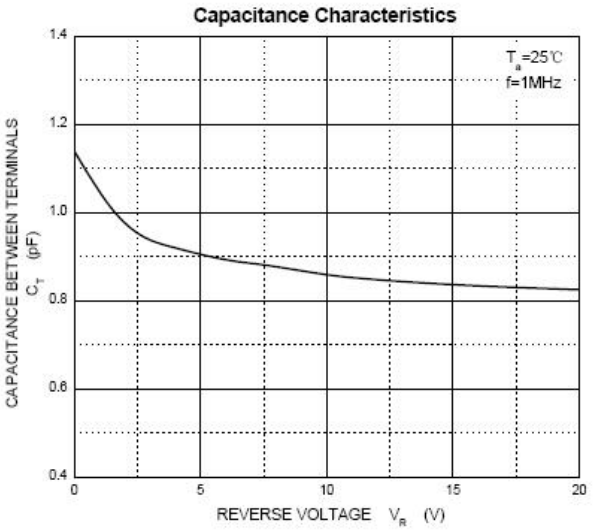
Characteristic	Symbol	Test Condition	Min	Typ	Max	Units
Forward Voltage*	V_F	I_F=100mA I_F=200mA	-	-	1.0 1.25	V
Reverse Leakage Current* BAV19W BAV20W BAV21W	I_R	 V_R=100V V_R=150V V_R=200V	-	-	 0.1 0.1 0.1	μA
Diode capacitance	C_T	V_R=0V,f=1.0MHz	-	-	5	pF
Reverse recovery time	t_{rr}	I_F= I_R=30mA, I_{rr}=0.1×I_R,R_L=100Ω	-	-	50	ns

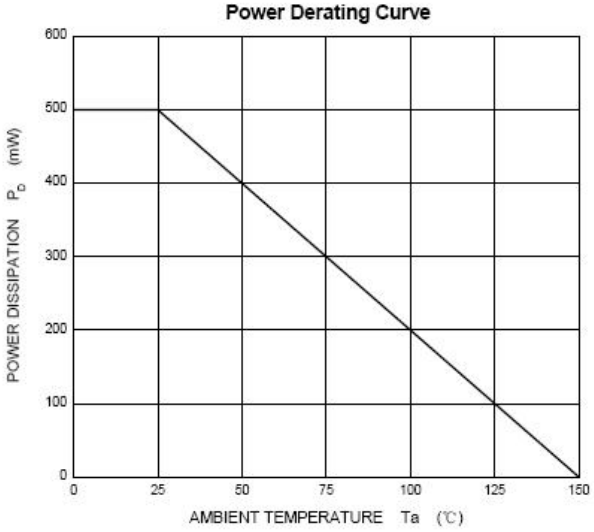
* Pulse width < 300 μs, duty cycle < 2%

Ratings and Characteristics Curves









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Ordering Information

Device	Package	Shipping
BAV19W-BAV21W	SOD-123 (Pb-Free)	3000pcs / reel
BAV19WTR-BAV21WTR	SOD-123 (Pb-Free)	3000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram

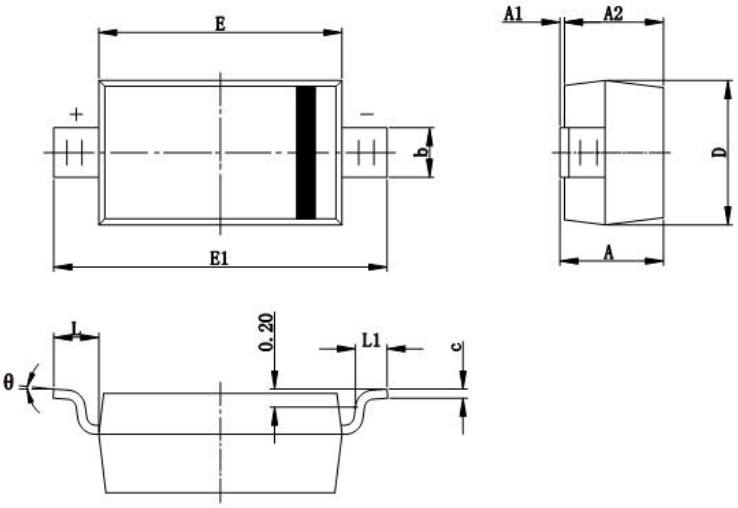
Marking before 16441(Date Code)

Part Number	Device Marking Code
BAV19W	A8
BAV20W	A80
BAV21W	A82

Marking from 16441(Date Code)

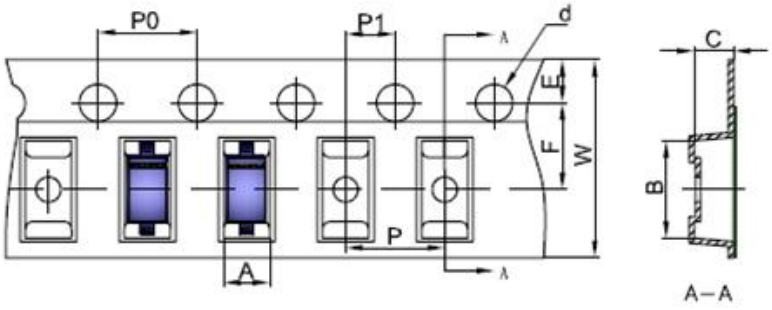
Part Number	Device Marking Code
BAV19W	A8 •
BAV20W	T2 •
BAV21W	T3 •

Mechanical Dimensions SOD-123



SYMBOL	Millimeters		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	0.450	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	0.500 REF.		0.020 REF.	
L1	0.250	0.450	0.010	0.018
θ	0°	8°	0°	8°

Carrier Tape Specification SOD-123



SYMBOL	Millimeters	
	Min.	Max.
A	1.80	1.90
B	3.89	3.99
C	1.52	1.62
d	1.45	1.65
E	1.65	1.85
F	3.40	3.60
P	3.90	4.10
P0	3.90	4.10
P1	1.90	2.10
W	7.90	8.30

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