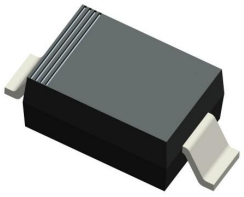
Technical Data
Data Sheet N0590, Rev. B

RoHS HF

BAV19WS-BAV21WS SWITCHING DIODE



SOD-323

Features

- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications
- High Conductance
- This is a Halogen Free Device
- "-A" is an AEC-Q101 qualified device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Schematic & Pin Configuration

Mechanical Characteristics

- Case: SOD-323, Molded plastic
- Terminals: Plated leads solderable per MIL-STD-202, Method 208

Maximum Ratings@T_A=25°C unless otherwise specified

Characteristic	Symbol	BAV19WS	BAV20WS	BAV21WS	Unit
Marking Code		**A8**	**T2**	**T3**	
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
Forward continuous current	I_{FM}	400			mA
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) @t=1.0ms @ t=1.0s	I_{FSM}	2.5 0.5			A
Power Dissipation	P_d	250			mW
Repetitive Peak Forward Current	I_{FRM}	625			mA
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	500			°C/W
Junction Temperature Range	T_J	150			°C
Storage Temperature Range	T_{STG}	-55 to +150			°C

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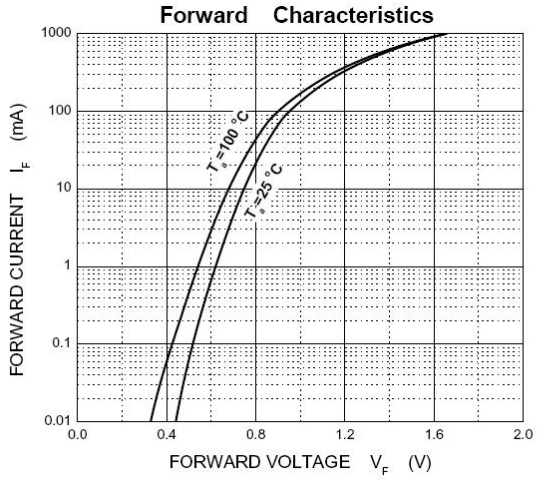
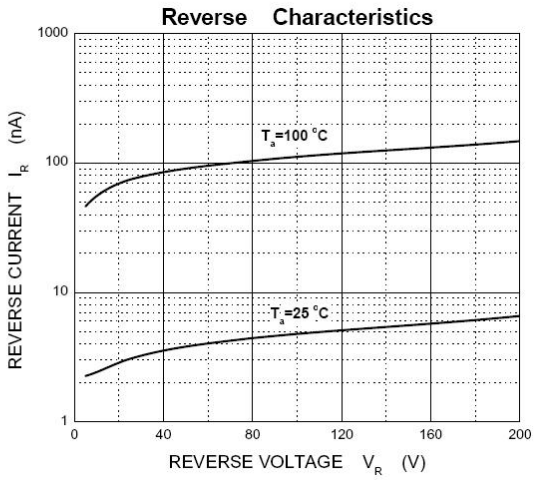
Electrical Characteristics@T_A=25°C unless otherwise specified

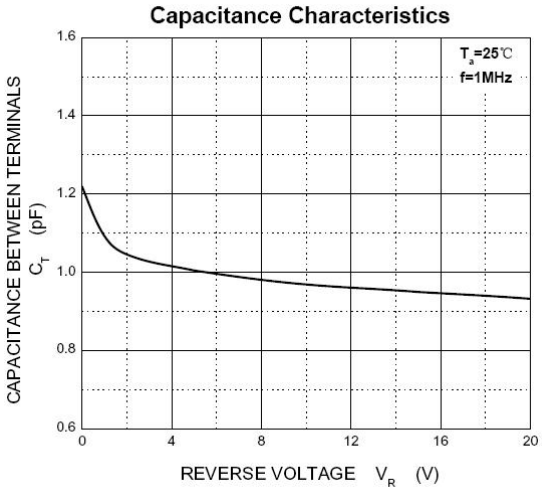
Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Forward Voltage*	V_F	I_F=100mA I_F=200mA	-	0.95 1.06	1.00 1.25	V
Reverse Leakage Current* BAV19WS BAV20WS BAV21WS	I_R	V_R=100V V_R=150V V_R=200V	-	0.007	0.1	μA
Diode capacitance	C_T	V_R=0V,f=1.0MHz	-	1.2	5	pF
Reverse recovery time	t_{rr}	I_F= I_R=30mA, I_{rr}=0.1×I_R,R_L=100Ω	-	-	50	ns

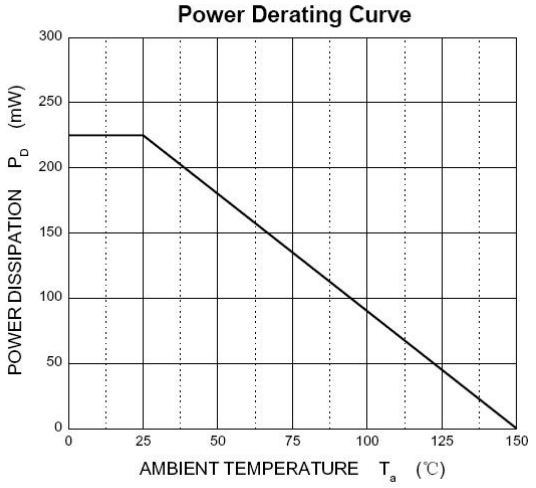
* Pulse width < 300 μs, duty cycle < 2%

Ratings and Characteristics Curves









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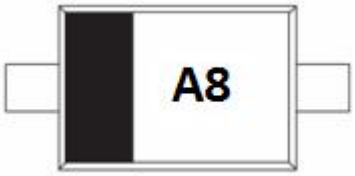
Ordering Information

Device	Package	Shipping
BAV19WS-BAV21WS	SOD-323	3000pcs / reel
BAV19WSTR-BAV21WSTR	SOD-323	3000pcs / reel

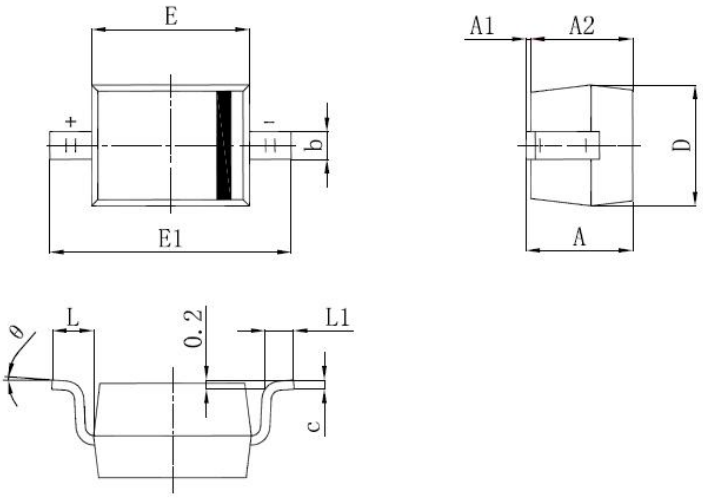
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram



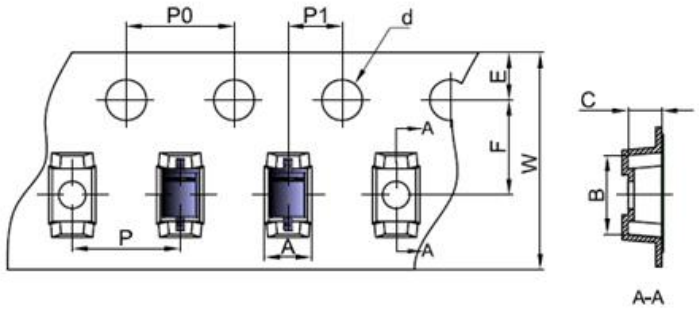
A8 = Marking Code

Mechanical Dimensions SOD-323



SYMBOL	Millimeters		Inches	
	MIN.	MAX.	MIN.	MAX.
A	-	1.000	-	0.039
A1	0.000	0.100	0.000	0.004
A2	0.800	0.900	0.031	0.035
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	1.200	1.400	0.047	0.055
E	1.600	1.800	0.063	0.071
E1	2.500	2.700	0.098	0.106
L	0.475 REF.		0.019 REF.	
L1	0.250	0.400	0.010	0.016
θ	0°	8°	0°	8°

Carrier Tape Specification SOD-323



SYMBOL	Millimeters	
	Min.	Max.
B	2.85	2.95
C	1.20	1.30
d	1.40	1.60
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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