BAV19WS - BAV21WS

SURFACE MOUNT FAST SWITCHING DIODE

Features

- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications
- High Conductance
- Also Available in Lead Free Version

Mechanical Data

- Case: SOD-323, Molded Plastic
- Case material UL Flammability Rating Classification 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020A
- Terminals: Solderable per MIL-STD-202, Method 208
- Also Available in Lead Free Plating (Matte Tin Finish). Please see Ordering Information, Note 4, on Page 2
- Terminal Connections: Cathode Band, See Page 2
- BAV19WS Marking: A8 or T2 or T3
- BAV20WS Marking: T2 or T3
- BAV21WS Marking: T3
- Weight: 0.004 grams (approx.)

Maximum Ratings @ TA = 25°C unless otherwise specified

Characteristic	Symbol	BAV19WS	BAV20WS	BAV21WS	Unit
Repetitive Peak Reverse Voltage	V _{RRM}	120	200	250	V
Working Peak Reverse Voltage DC Blocking Voltage	V _{RWM} V _R	100	150	200	V
RMS Reverse Voltage	V _{R(RMS)}	71	106	141	V
Forward Continuous Current (Note 1)	I _{FM}		400		mA
Average Rectified Output Current (Note 1)	lo	200			mA
Non-Repetitive Peak Forward Surge Current @ t = $1.0 \mu s$ @ t = $1.0 s$	I _{FSM}	2.5 0.5			A
Repetitive Peak Forward Surge Current		625			mA
Power Dissipation	Pd	200			mW
Thermal Resistance Junction to Ambient Air (Note 1)	R _{0JA}	JA 625			°C/W
Operating and Storage Temperature Range	T _j , T _{STG}		-65 to +150		°C

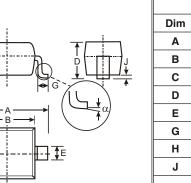
Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic		Symbol	Min	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 2)	BAV19WS BAV20WS BAV21WS	V _{(BR)R}	120 200 250	_	V	I _R = 100μA
Forward Voltage (Note 2)		V _{FM}		1.0 1.25	V	I _F = 100mA I _F = 200mA
Peak Reverse Current @ Rated DC Blocking Voltage (Note 2)		I _{RM}	_	100 15	NA μA	$\begin{array}{l} T_{j}=~25^{\circ}C\\ T_{j}=~100^{\circ}C \end{array}$
Total Capacitance		Ct		5.0	pF	V _R = 0, f = 1.0MHz
Reverse Recovery Time		t _{rr}	_	50	ns	$\label{eq:IF} \begin{array}{l} I_F = I_R = 30 \text{mA}, \\ I_{\text{rr}} = 0.1 \text{ x } I_R, \ R_L = 100 \Omega \end{array}$

Note: 1. Part mounted on FR-4 PC board with recommended pad layout, which can be found on our website at http://www.diodes.com/datasheets/ap02001.pdf.

2. Short duration pulse test used to minimize self-heating effect.

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SOD-323					
Dim	Min	Max			
Α	2.30	2.70			
В	1.60	1.80			
С	1.20	1.40			
D	1.05 Typical				
Е	0.25	0.35			
G	0.20	0.40			
н	0.10	0.15			
J	0.05 Typical				
α	0°	8°			
All Dimensions in mm					



Ordering Information (Note 3)

Device	Packaging	Shipping
BAV19WS-7	SOD-323	3000/Tape & Reel
BAV20WS-7	SOD-323	3000/Tape & Reel
BAV21WS-7	SOD-323	3000/Tape & Reel

Notes: 3. For Packaging Details, go to our website at: http://www.diodes.com/datasheets/ap02007.pdf.

 For Lead Free version (with Lead Free terminal finish) part number, please add "-F" suffix to the part number above. Example: BAV21WS-7-F.

Marking Information

