

**SINLOON®**

快速開關二極管

**BAV19WS - BAV21WS (200V 0.2A )  
SOD-323 SURFACE MOUNT FAST SWITCHING DIODE**

**FEATURE:**

- ◆ Fast Switching Speed
- ◆ High Conductance
- ◆ Surface Mount Package Ideally Suited for Automatic Insertion
- ◆ For General Purpose Switching Application
- ◆ Plastic Material - UL Recognition Flammability Classification 94V-0

**MECHANICAL CHARACTERISTICS:**

- ◆ Case: SOD-323 Molded Plastic
- ◆ Weight: 0.004 Grams (approx)
- ◆ Marking: Body top
- ◆ Terminals: Plated leads solderable per MIL-STD-202, Method 208.
- ◆ Mounting: Position any
- ◆ Lead Free for **RoHS** Lead free version and "LF" suffix to part number.

Figure

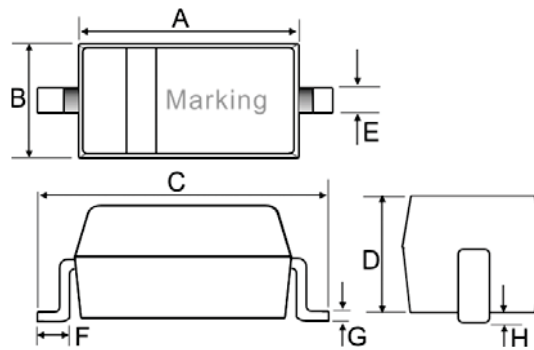


| Part No. | Code |
|----------|------|
| BAV19WS  | A8   |
| BAV20WS  | T2   |
| BAV21WS  | T3   |

**DIMENSION:**

mm

| SOD-323 |      |      |
|---------|------|------|
| Dim     | Min  | Max  |
| A       | 1.6  | 1.8  |
| B       | 1.15 | 1.35 |
| C       | 2.3  | 2.75 |
| D       | 0.8  | 1.0  |
| E       | 0.25 | 0.4  |
| F       | 0.2  | 0.4  |
| G       | 0.09 | 0.18 |
| H       | ---  | 0.12 |



**Maximum Ratings and Electrical Characteristics Single Diode @T<sub>A</sub>=25°C unless otherwise specified**

| Characteristics  | Symbol                            | BAV19WS      | BAV20WS | BAV21WS | Unit |
|--|-----------------------------------|--------------|---------|---------|------|
| Non-Repetitive Peak Reverse Voltage                                  | V <sub>RM</sub>                   | 120          | 200     | 250     | V    |
| Peak Repetitive Reverse Voltage                                      | V <sub>RRM</sub>                  | 100          | 150     | 200     | V    |
| Working Peak Reverse Voltage   | V <sub>RWM</sub>                  |              |         |         |      |
| DC Blocking Voltage  | V <sub>R</sub>                    |              |         |         |      |
| RMS Reverse Voltage  | V <sub>R(RMS)</sub>               | 70           | 105     | 140     | V    |
| Forward Continuous Current (Note 1)                                  | I <sub>F</sub>                    | 400          |         |         | mA   |
| Average Rectified Output Current (Note 1)                            | I <sub>O</sub>                    | 200          |         |         | mA   |
| Non-Repetitive Peak Forward Surge Current @ t = 1.0 μs<br>@ t = 1.0s | I <sub>FSM</sub>                  | 2.5<br>0.5   |         |         | A    |
| Power Dissipation  | P <sub>d</sub>                    | 200          |         |         | mW   |
| Typical Thermal Resistance, Junction to Ambient Air (Note 1)         | R <sub>θJA</sub>                  | 625          |         |         | K/W  |
| Operating and Storage Temperature Range                              | T <sub>J</sub> , T <sub>STG</sub> | -65 to + 150 |         |         | °C   |
| Forward Voltage Drop @ I <sub>F</sub> = 100mA                        | V <sub>FM</sub>                   | 1.0          |         |         | V    |
| Peak Reverse Leakage Current @ Rated DC Blocking Voltage             | I <sub>RM</sub>                   | 100          |         |         | nA   |
| Typical Junction Capacitance (V <sub>R</sub> =0 DC, f = 1.0MHz)      | C <sub>j</sub>                    | 5.0          |         |         | pF   |
| Reverse Recovery Time (Note 2)                                       | trr                               | 50           |         |         | nS   |

Note<sup>1</sup>: Device on fiberglass substrate.

Refer SOD-323 standard mounting conditions.

Note<sup>2</sup>: Measured with I<sub>F</sub> = I<sub>R</sub> = 30mA, I<sub>RR</sub> = 0.1 x I<sub>R</sub>, R<sub>L</sub> = 100Ω



ELECTRICAL CHARACTERISTICS CURVRE

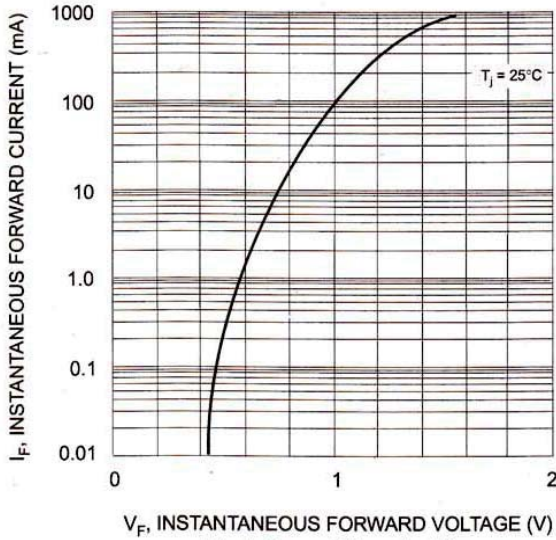


Fig. 1 Forward Characteristics

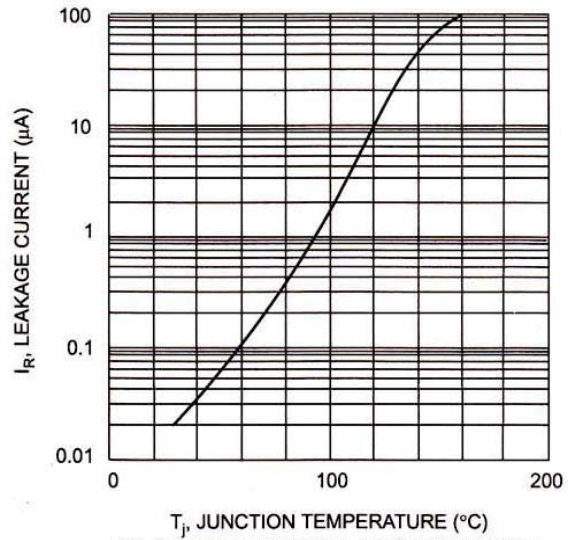
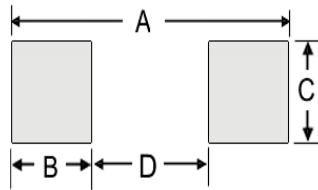


Fig. 2 Leakage Current vs Junction Temperature

RECOMMENDED FOOTRONT

| Dimension | mm   | inches |
|-----------|------|--------|
| A         | 3.06 | 0.121  |
| B         | 0.63 | 0.025  |
| C         | 0.83 | 0.033  |
| D         | 1.60 | 0.063  |



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**COMMON PACKING INFORMATION:**

| Product Number: | Package Type | Packing Quantity | Carton Quantity | Apporx Gross Weight |
|-----------------|--------------|------------------|-----------------|---------------------|
| BAV19WS         | SOD-323      | 3000 Tape & Reel | 150,000 Ctn     | 7.0/Kg              |
| BAV20WS         | SOD-323      | 3000 Tape & Reel | 150,000 Ctn     | 7.0/Kg              |
| BAV21WS         | SOD-323      | 3000 Tape & Reel | 150,000 Ctn     | 7.0/Kg              |

| Reel Diameter (mm) | Quantity (Pcs) | Inner Box Size (mm)    | Carton Size (mm)      |
|--------------------|----------------|------------------------|-----------------------|
| 178                | 3000           | L: 187 x W:187 x H: 65 | L:390 x W:240 x H:420 |

**Reel : Fig-1**



Q'ty: 3,000/Reel

**Inner Box: Fig-2**



Q;ty: 15,000/Box

**Carton Pack Fig-3**



Q'ty: 150,000/Carton.

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