

■ Switching Diodes

**FEATURES**

- ◆ For surface mounted applications
- ◆ Glass Passivated Chip Junction
- ◆ Fast reverse recovery time
- ◆ Ideal for automated placement
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives



**Pinning**

| 1.Cathode        | 2.Anode |
|------------------|---------|
|                  |         |
| <b>SOD-323FL</b> |         |

**MECHANICAL DATA**

- ◆ Case: SOD-323FL
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026
- ◆ Approx. Weight: 4.5mg / 0.00016oz

**Marking Code**

| BAV19WSFL | A8 |
|-----------|----|
| BAV20WSFL | T2 |
| BAV21WSFL | T3 |

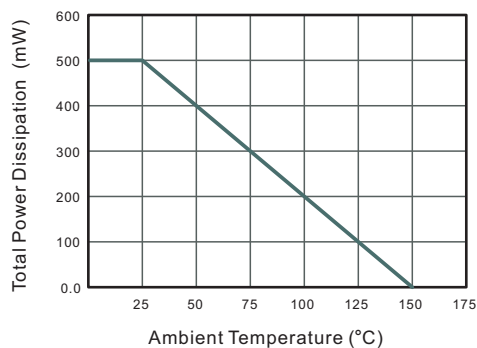
**Absolute Maximum Ratings at 25 °C**

| Parameter                                |        | Symbols                               | BAV19WSFL  | BAV20WSFL | BAV21WSFL | Units     |
|------------------------------------------|--------|---------------------------------------|------------|-----------|-----------|-----------|
| Maximum Repetitive Peak Reverse Voltage  |        | <b>V<sub>RRM</sub></b>                | 120        | 200       | 250       | <b>V</b>  |
| Maximum RMS voltage                      |        | <b>V<sub>RMS</sub></b>                | 100        | 150       | 200       | <b>V</b>  |
| Continuous Forward Current               |        | <b>I<sub>F</sub></b>                  | 250        |           |           | <b>mA</b> |
| Repetitive Peak Forward Current          |        | <b>I<sub>FRM</sub></b>                | 625        |           |           | <b>mA</b> |
| Non-reptitive Peak Forward Surge Current | at 1s  | <b>I<sub>FSM</sub></b>                | 1          |           |           | <b>A</b>  |
|                                          | at 1ms |                                       | 3          |           |           |           |
|                                          | at 1us |                                       | 9          |           |           |           |
| Total Power Dissipation                  |        | <b>P<sub>tot</sub></b>                | 500        |           |           | <b>mW</b> |
| Operating and Storage Temperature Range  |        | <b>T<sub>j</sub>, T<sub>stg</sub></b> | -55 ~ +150 |           |           | <b>°C</b> |

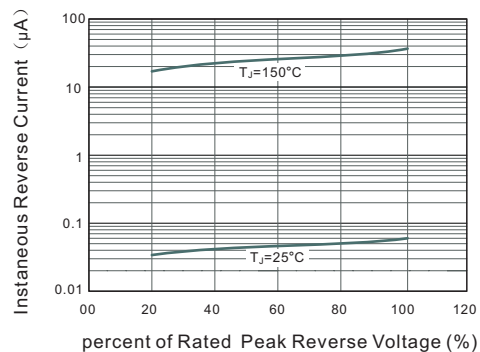
**Characteristics at Ta = 25 °C**

| Parameter                                                  |                       | Symbols            | BAV19WSFL | BAV20WSFL | BAV21WSFL | Units |
|------------------------------------------------------------|-----------------------|--------------------|-----------|-----------|-----------|-------|
| Reverse BreakdownVoltage at IR=100μA                       |                       | V <sub>(BR)R</sub> | 120       | 200       | 250       | V     |
| Maximum Forward Voltage                                    | at 100 mA             | V <sub>F</sub>     | 1.00      |           |           | V     |
|                                                            | at 200 mA             |                    | 1.25      |           |           |       |
| Maximum DC Reverse Current at Rated DC Blocking Voltage    | T <sub>a</sub> =25°C  | I <sub>R</sub>     | 0.1       |           |           | uA    |
|                                                            | T <sub>a</sub> =150°C |                    | 100       |           |           |       |
| Typical Junction Capacitance at V <sub>R</sub> =4V, f=1MHz |                       | C <sub>j</sub>     | 5         |           |           | pF    |
| Maximum Reverse Recovery Time                              |                       | T <sub>rr</sub>    | 50        |           |           | nS    |

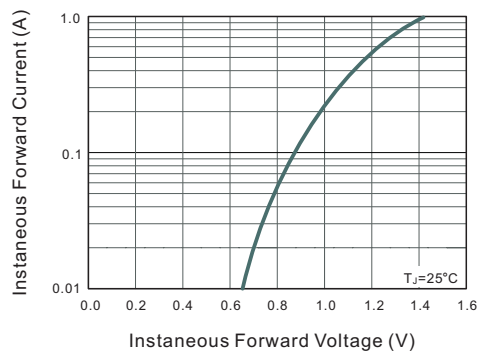
**Fig.1 Power Derating Curve**



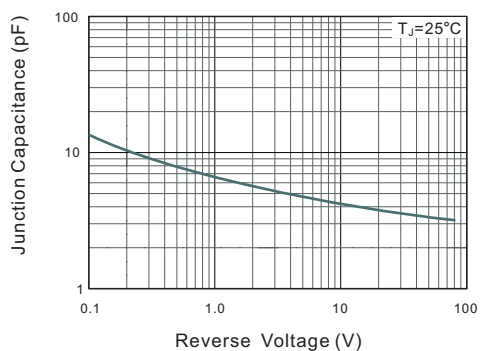
**Fig.2 Typical Reverse Characteristics**



**Fig.3 Typical Instaneous Forward Characteristics**



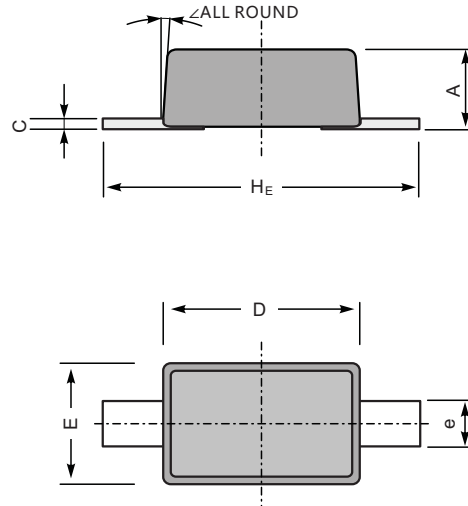
**Fig.4 Typical Junction Capacitance**



**Package Outline**

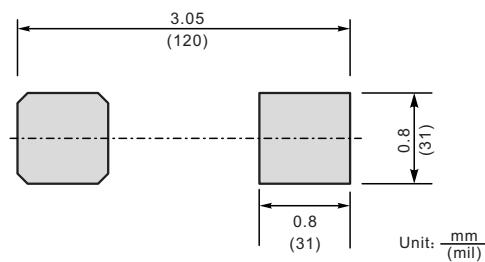
**SOD-323FL**

Plastic surface mounted package; 2 leads



| UNIT |     | A   | C    | D   | E    | e    | H <sub>E</sub> | ∠  |
|------|-----|-----|------|-----|------|------|----------------|----|
| mm   | max | 1.0 | 0.25 | 1.8 | 1.35 | 0.4  | 2.7            | 8° |
|      | min | 0.8 | 0.05 | 1.6 | 1.15 | 0.25 | 2.3            |    |
| mil  | max | 39  | 9.8  | 71  | 53   | 18   | 106            |    |
|      | min | 31  | 2.0  | 63  | 45   | 10   | 91             |    |

**The recommended mounting pad size**



**Summary of Packing Options**

| Package   | Packing Description | Packing Quantity | Industry Standard |
|-----------|---------------------|------------------|-------------------|
| SOD-323FL | Tape/Reel, 7" reel  | 3000             | EIA-481-1         |