

High Voltage Switching Diode

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

MECHANICAL DATA

· Case: SOD-123

• Terminals: Solderable per MIL-STD-750, Method 2026

• Approx. Weight: 16mg/0. 00056oz

PINNING

| PIN | DESCRIPTION | |
|-----|-------------|--|
| 1 | Cathode | |
| 2 | Anode | |



Absolute Maximum Ratings at 25 °C

| Parameter | Symbols | BAV19W | BAV20W | BAV21W | Units |
|--|------------------|--------------------|-------------|--------|-------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 120 | 200 | 250 | V |
| Maximum RMS voltage | V_{RMS} | 100 | 150 | 200 | V |
| Continuous Forward Current | I _F | 250 | | | mA |
| Repetitive Peak Forward Current | I _{FRM} | 625 | | mA | |
| Non-reptitive Peak Forward Surge Current at 1s at 1 ms at 1 us | I _{FSM} | | 1 3 9 | | А |
| Total Power Dissipation | P _{tot} | 500 | | | mW |
| Operating and Storage Temperature Range | T_{j}, T_{stg} | -55 ~ + 150 | | | °C |

Characteristics at Ta = 25 °C

| Parameter | Symbols | BAV19W | BAV20W | BAV21W | Units |
|--|-----------------|--------------|--------|--------|-------|
| Reverse BreakdownVoltage at I _R =100μA | $V_{(BR)R}$ | 120 | 200 | 250 | V |
| Maximum Forward Voltage at 100 m A at 200 m A | V _F | 1.00 1.25 | | | V |
| Maximum DC Reverse Current $T_a = 25 ^{\circ}\text{C}$ at Rated DC Blocking Voltage $T_a = 150 ^{\circ}\text{C}$ | I _R | 0.1 100 | | | μΑ |
| Typical Junction Capacitance at V _R =4V, f=1MHz | C _j | | 5 | | pF |
| Maximum Reverse Recovery Time (1) | t _{rr} | | 50 | | ns |

^(1) Measured with IF = 0.5 A, IR = 1 A, Irr = 0.25 A $\,$



BAV19W - BAV21W High Voltage Switching Diode

Characteristic Curves (T_A=25 °C unless otherwise noted)

Fig.1 Forward Current Derating Curve

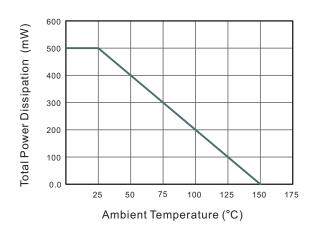


Fig.2 Typical Reverse Characteristics

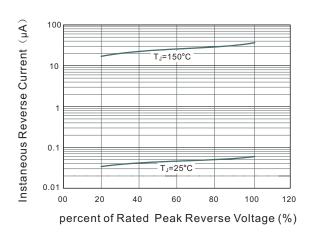


Fig.3 Typical Instaneous Forward Characteristics

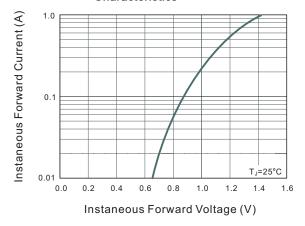
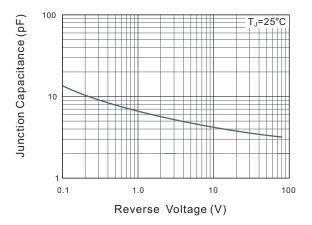


Fig.4 Typical Junction Capacitance



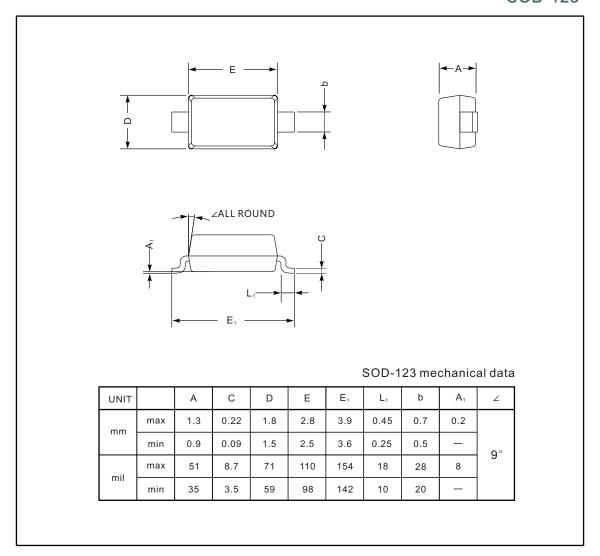


BAV19W - BAV21W High Voltage Switching Diode

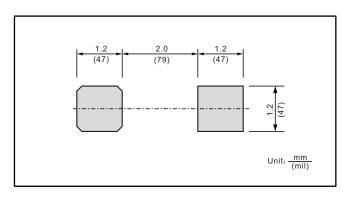
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123



The recommended mounting pad size



Marking

| Type number | Marking code | | |
|-------------|--------------|--|--|
| BAV19W | A8 | | |
| BAV20W | T2 | | |
| BAV21W | Т3 | | |

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