

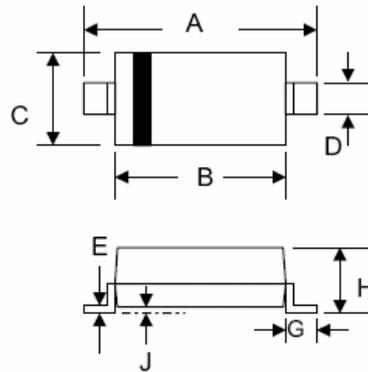


Technical Data

Data Sheet N0591, Rev. -

Features

- High Conductance
- Fast Switching
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose and Switching
- Plastic Material – UL Recognition Flammability Classification 94V-O
- This is a Pb - Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request



| SOD-123 | | | | |
|---------|-------|------|---------|-------|
| Dim | Min | Max | Min | Max |
| A | 3.6 | 3.9 | 0.14 | 0.154 |
| B | 2.5 | 2.8 | 0.098 | 0.110 |
| C | 1.4 | 1.8 | 0.055 | 0.070 |
| D | 0.5 | 0.7 | 0.020 | 0.028 |
| E | — | 0.2 | — | 0.008 |
| G | 0.4 | — | 0.016 | — |
| H | 0.95 | 1.35 | 0.037 | 0.053 |
| J | — | 0.12 | — | 0.005 |
| | In mm | | In inch | |

Mechanical Data

- Case: SOD-123, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.01 grams (approx.)
- Marking: BAV19W A8
BAV20W A80
BAV21W A82

Maximum Ratings @T_A=25°C unless otherwise specified

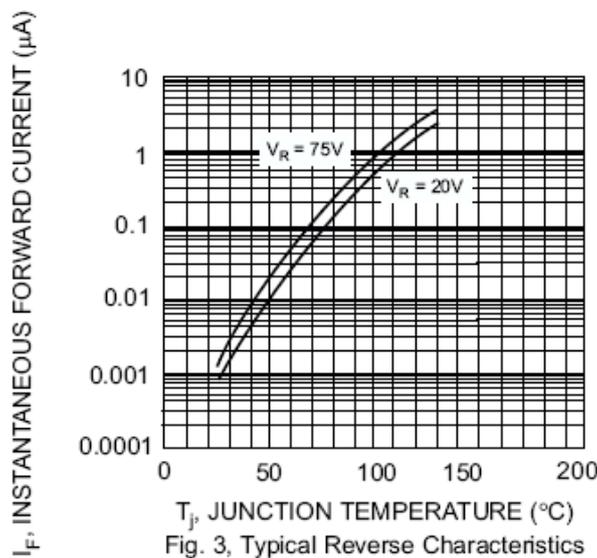
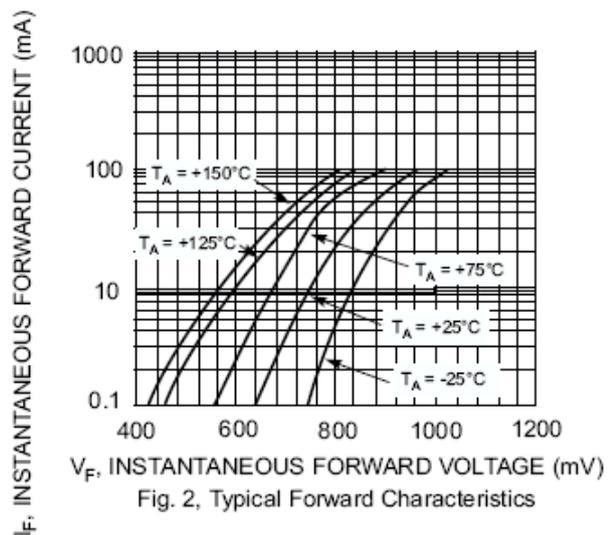
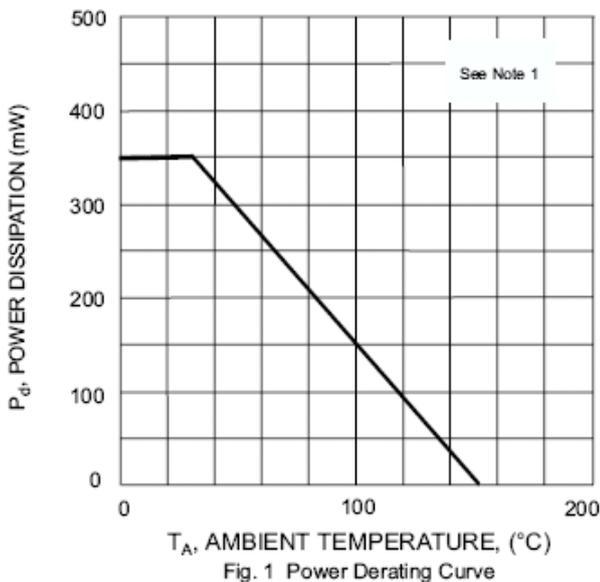
| Characteristic | Symbol | BAV19W | BAV20W | BAV21W | Unit |
|--|-----------------------------------|-------------|--------|--------|------|
| Non-Repetitive Peak Reverse Voltage | V _{RM} | 120 | 200 | 250 | V |
| Peak Repetitive Reverse Voltage | V _{RRM} | 100 | 150 | 200 | V |
| Working Peak Reverse Voltage | V _{RWM} | | | | |
| DC Blocking Voltage | V _R | | | | |
| RMS Reverse Voltage | V _{R(RMS)} | 70 | 105 | 140 | V |
| Forward Continuous Current (Note 1) | I _{FM} | 400 | | | mA |
| Average Rectified Output Current (Note 1) | I _o | 200 | | | mA |
| Non-Repetitive Peak Forward Surge Current | I _{FSM} | 2.5 | | | A |
| | | 0.5 | | | |
| Power Dissipation | P _d | 410 | | | mW |
| Typical Thermal Resistance, Junction to Ambient Air (Note 1) | R _{θJA} | 500 | | | K/W |
| Operating and Storage Temperature Range | T _J , T _{STG} | -65 to +150 | | | °C |



Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

| Characteristic | Symbol | BAV19W | BAV20W | BAV21W | Unit |
|---|----------|--------|--------|--------|------|
| Forward Voltage Drop @ $I_F = 100\text{mA}$ | V_{FM} | 1.0 | | | V |
| Peak Reverse Leakage Current At Rated DC Blocking Voltage | I_{RM} | 100 | 150 | 200 | nA |
| Typical Junction Capacitance ($V_R = 0\text{V DC}$, $f = 1.0\text{MHz}$) | C_j | 5.0 | | | pF |
| Reverse Recovery Time (Note 2) | t_{rr} | 50 | | | nS |

Note: 1. Valid provided that terminals are kept at ambient temperature.
2. Measured with $I_F = I_R = 30\text{mA}$, $I_{RR} = 0.1 \times I_R$, $R_L = 100\ \Omega$.





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