

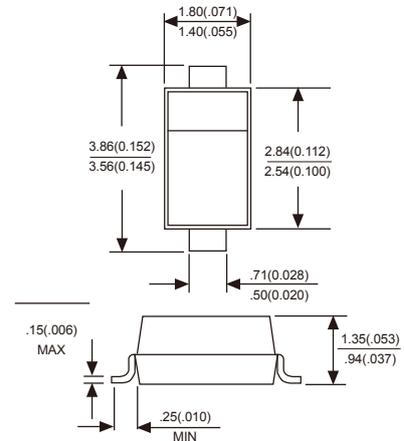
FEATURES

- Fast switching speed
- Surface mount package ideally suited for automatic insertion
- For general purpose switching applications

MECHANICAL DATA

- Case:** Molded plastic body
- Terminals:** Plated leads solderable per MIL-STD-750, Method 2026
- Polarity:** Polarity symbols marked on case
- Marking:** BAV19W:A8, BAV20W:T2, BAV21W:T3

SOD-123



Dimensions in millimeters and (inches)

Maximum ratings and electrical characteristics, Single diode @ $T_A=25^\circ\text{C}$

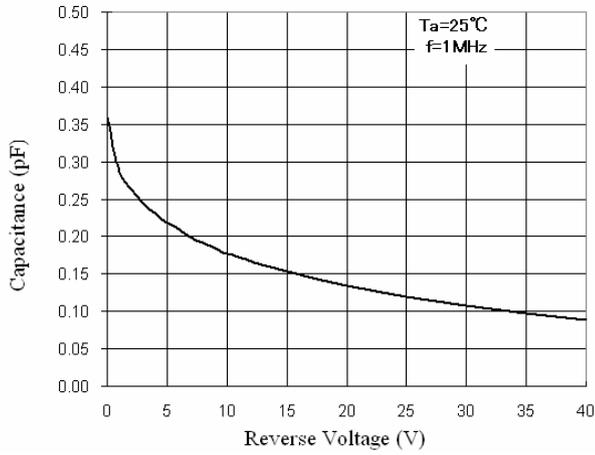
| PARAMETER | SYMBOLS | BAV19W | BAV20W | BAV21W | UNITS |
|--|-----------------|--------|-------------|--------|------------------|
| Peak repetitive peak reverse voltage | V_{RRM} | | | | |
| Working peak reverse voltage | V_{RWM} | 100 | 150 | 250 | V |
| DC Blocking voltage | V_R | | | | |
| RMS Reverse voltage | $V_{R(RMS)}$ | 71 | 106 | 141 | V |
| Forward continuous current | I_{FM} | | 400 | | mA |
| Average rectified output current | I_o | | 200 | | mA |
| Peak forward surge current @=1.0ms | I_{FSM} | | 2.5 | | A |
| @=1.0s | | | 0.5 | | |
| Repetitive peak forward current | I_{FRM} | | 625 | | mA |
| Power dissipation | P_d | | 250 | | mW |
| Thermal resistance junction to ambient | $R_{\theta JA}$ | | 500 | | K/W |
| Storage temperature | T_{STG} | | -65 to +150 | | $^\circ\text{C}$ |
| Non-Repetitive peak reverse voltage | V_{RM} | 120 | 200 | 250 | V |

Electrical ratings @ $T_A=25^\circ\text{C}$

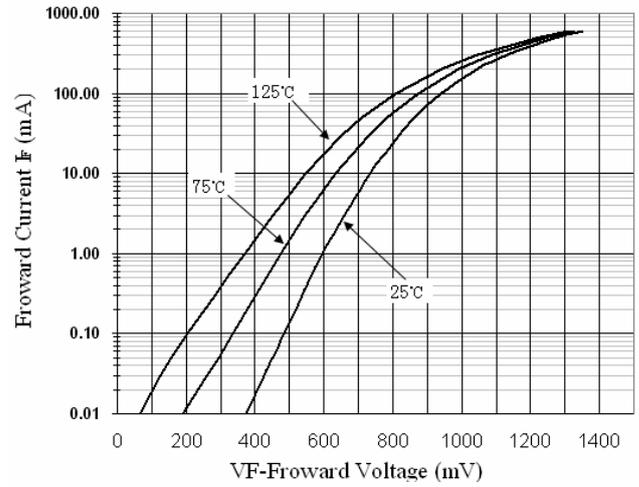
| PARAMETER | SYMBOLS | Min. | Typ. | Max. | Unit | Conditions |
|-------------------------------|----------|--------|------|------|---------------|---|
| Forward voltage | V_{F1} | | | 1.0 | V | $I_F=0.1\text{A}$ |
| | V_{F2} | | | 1.25 | V | $I_F=0.2\text{A}$ |
| Reverse current | I_R | BAV19W | | 0.1 | μA | $V_R=100\text{V}$ |
| | | BAV20W | | 0.1 | μA | $V_R=150\text{V}$ |
| | | BAV21W | | 0.1 | μA | $V_R=200\text{V}$ |
| Capacitance between terminals | C_T | | | 5 | pF | $V_R=0\text{V}, f=1.0\text{MHz}$ |
| Reverse recovery time | t_{rr} | | | 50 | ns | $I_F=I_R=10\text{mA}$ $I_{rr}=0.1 \times I_R, R_L=100\Omega$ |



Total Capacitance



Forward Voltage vs Ambient Temperature



Reverse Current vs Reverse Voltage

