

SWITCHING DIODE

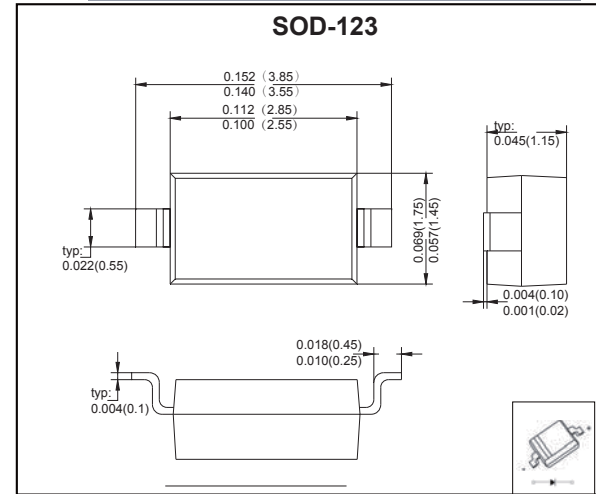
VOLTAGE RANGE: 120-250V
PEAK PULSE POWER: 500mW

FEATURES

- Low Reverse Current
- Surface Mount Package Ideally Suited for Automatic Insertion
- Fast Switching Speed
- For General Purpose Switching Applications

MECHANICAL DATA

- Case: SOD-123 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Mounting Position: Any



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

| Symbol | Parameter | Value | | | Unit |
|-----------------|---|----------|--------|--------|------|
| | | BAV19W | BAV20W | BAV21W | |
| V_{RM} | Non-Repetitive Peak Reverse Voltage | 120 | 200 | 250 | V |
| V_{RRM} | Peak Repetitive Reverse Voltage | 100 | 150 | 200 | V |
| V_{RWM} | Working Peak Reverse Voltage | | | | |
| $V_{R(RMS)}$ | RMS Reverse Voltage | 71 | 106 | 141 | V |
| I_O | Average Rectified Output Current | 200 | | | mA |
| I_{FSM} | Non-repetitive Peak Forward Surge Current @ t=8.3ms | 2.0 | | | A |
| P_D | Power Dissipation | 500 | | | mW |
| $R_{\theta JA}$ | Thermal Resistance from Junction to Ambient | 250 | | | °C/W |
| T_j | Junction Temperature | 150 | | | °C |
| T_{stg} | Storage Temperature | -55~+150 | | | °C |

Electrical Specification ($T_A=25^\circ\text{C}$ unless otherwise specified)

| Parameter | Symbol | Test conditions | Min | Typ | Max | Unit |
|-----------------------|-----------|--|--------|-----|------|---------------|
| Reverse current | I_R | $V_R=100\text{V}$ | BAV19W | | 0.1 | μA |
| | | $V_R=150\text{V}$ | BAV20W | | 0.1 | |
| | | $V_R=200\text{V}$ | BAV21W | | 0.1 | |
| Forward voltage | V_F | $I_F=100\text{mA}$ | | | 1 | V |
| | | $I_F=200\text{mA}$ | | | 1.25 | |
| Total capacitance | C_{tot} | $V_R=0\text{V}, f=1\text{MHz}$ | | | 5 | pF |
| Reverse recovery time | t_{rr} | $I_F=I_R=30\text{mA}, I_{rr}=0.1 \cdot I_R, R_L=100\Omega$ | | | 50 | ns |

MARKING:

| BAV19W | BAV20W | BAV21W |
|--------|--------|--------|
| A8 | T2 | T3 |



RATINGS AND CHARACTERISTIC CURVES

