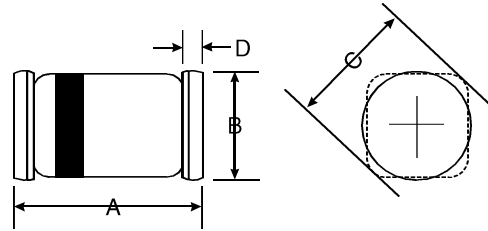


Features

Fast Switching Speed
 Surface Mount Package Ideally Suited for Automatic Insertion
 For General Purpose Switching Applications
 High Conductance
 Fits on SOD-323 / SOT-23 Footprint



Mechanical Data

Case: MicroMELF, Glass
 Terminals: Solderable per MIL-STD-202, Method 208
 Polarity: Cathode Band
 Marking: Cathode Band Only
 Weight: 0.012 grams (approx.)

| MicroMELF | | |
|----------------------|------|---------|
| Dim | Min | Max |
| A | 1.8 | 2.0 |
| B | 1.20 | 1.25 |
| C | 1.35 | Typical |
| All Dimensions in mm | | |

Maximum Ratings @ $T_A = 25\text{ C}$ unless otherwise specified

| Characteristic | Symbol | BAV301 | BAV302 | BAV303 | Unit |
|---|--------------------|-------------|--------|--------|------|
| Repetitive Peak Reverse Voltage | V_{RRM} | 120 | 200 | 250 | V |
| Working Peak Reverse Voltage DC Blocking Voltage | V_{RWM} V_R | 100 | 150 | 200 | V |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 71 | 106 | 141 | V |
| Forward Continuous Current (Note 1) | I_{FM} | 250 | | | mA |
| Average Rectified Output Current (Note 1) | I_O | 125 | | | mA |
| Non-Repetitive Peak Forward Surge Current @ $t < 1.0\text{s}$ | I_{FSM} | 1.0 | | | A |
| Power Dissipation | P_d | 500 | | | mW |
| Thermal Resistance Junction to Ambient Air (Note 1) | R_{JA} | 300 | | | K/W |
| Operating and Storage Temperature Range | T_j, T_{STG} | -65 to +175 | | | C |

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

| Characteristic | Symbol | Min | Max | Unit | Test Condition |
|--|----------|-----|-----------|---------|---|
| Maximum Forward Voltage | V_{FM} | | 1.0 | V | $I_F = 100\text{mA}$ |
| Maximum Peak Reverse Current @ Rated DC Blocking Voltage | I_{RM} | | 100 15 | nA A | $T_A = 25\text{ C}$ $T_A = 100\text{ C}$ |
| Junction Capacitance | C_j | | 1.5 | pF | $V_R = 0, f = 1.0\text{MHz}$ |
| Reverse Recovery Time | t_{rr} | | 50 | ns | $I_F = I_R = 30\text{mA}$, $I_{rr} = 0.1 \times I_R, R_L = 100$ |

Notes: 1. Valid provided that electrodes are kept at ambient temperature.

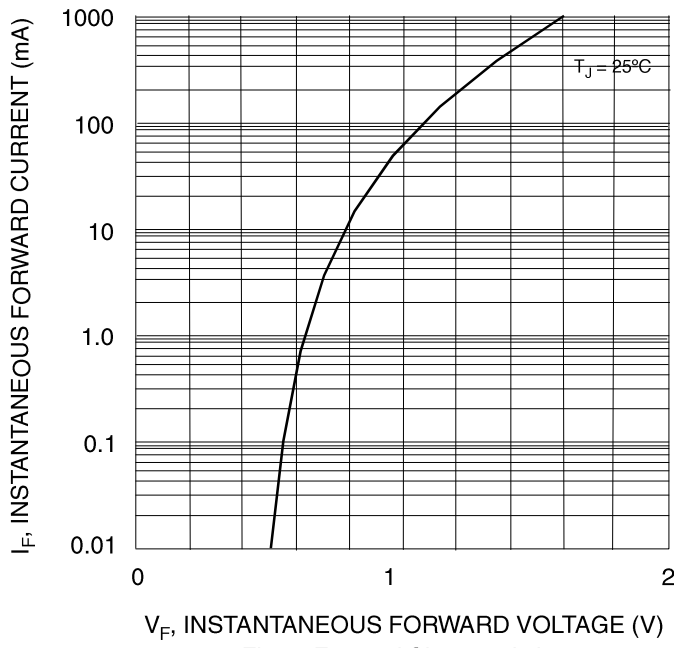


Fig. 1 Forward Characteristics

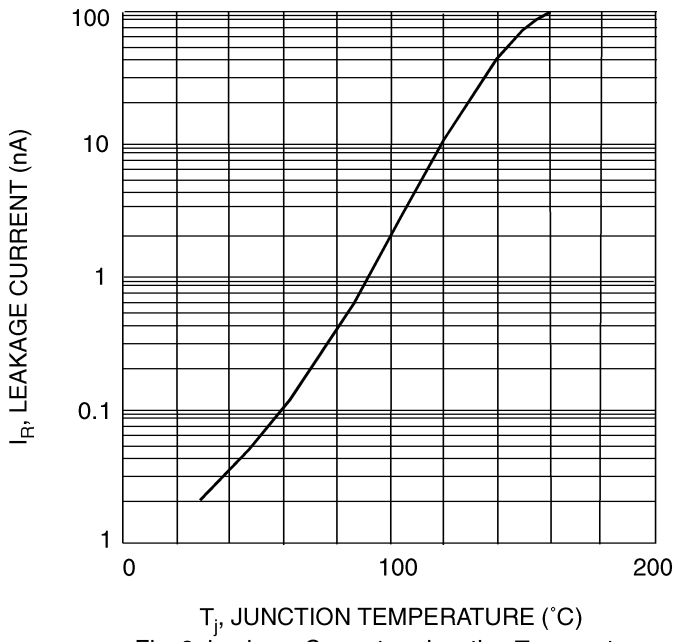


Fig. 2 Leakage Current vs Junction Temperature