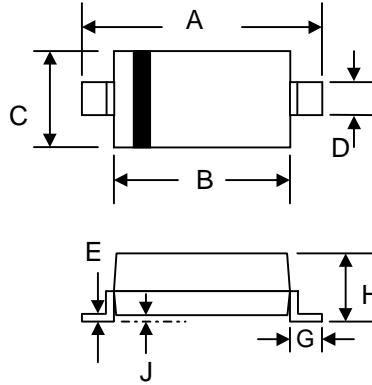


SURFACE MOUNT FAST SWITCHING DIODE

Features

- High Conductance
- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Application
- Plastic Material – UL Recognition Flammability Classification 94V-O



| SOD-123 | | |
|----------------------|------|------|
| Dim | Min | Max |
| A | 3.6 | 3.9 |
| B | 2.5 | 2.8 |
| C | 1.4 | 1.8 |
| D | 0.5 | 0.7 |
| E | — | 0.2 |
| G | 0.4 | — |
| H | 0.95 | 1.35 |
| J | — | 0.12 |
| All Dimensions in mm | | |

Mechanical Data

- Case: SOD-123, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band

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

| Characteristic | Symbol | Value | Unit |
|---|---------------------------------|-------------|------------------|
| Non-Repetitive Peak Reverse Voltage | V_{RM} | 100 | V |
| Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage | V_{RRM} V_{RWM} V_R | 75 | V |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 53 | V |
| Forward Continuous Current (Note 1) | I_{FM} | 300 | mA |
| Average Rectified Output Current (Note 1) | I_O | 150 | mA |
| Non-Repetitive Peak Forward Surge Current @ $t = 1.0\mu\text{s}$ @ $t = 1.0\text{s}$ | I_{FSM} | 2.0 1.0 | A |
| Power Dissipation (Note 1) | P_d | 410 | mW |
| Typical Thermal Resistance, Junction to Ambient Air (Note 1) | $R_{\theta JA}$ | 315 | K/W |
| Operating and Storage Temperature Range | T_j, T_{STG} | -65 to +150 | $^\circ\text{C}$ |

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

| Characteristic | Symbol | Value | Unit |
|---|----------|-----------|---------------------|
| Forward Voltage Drop @ $I_F = 10\text{mA}$ | V_{FM} | 1.0 | V |
| Peak Reverse Leakage Current @ $V_R = 20\text{V}$ @ $V_R = 75\text{V}$ | I_{RM} | 25 5.0 | nA μA |
| Typical Junction Capacitance ($V_R = 0\text{V DC}, f = 1.0\text{MHz}$) | C_j | 2.0 | pF |
| Reverse Recovery Time (Note 2) | t_{rr} | 4.0 | nS |

Note: 1. Valid provided that terminals are kept at ambient temperature.
2. Measured with $I_F = I_R = 10\text{mA}$, $I_{RR} = 0.1 \times I_R$, $R_L = 100\Omega$.

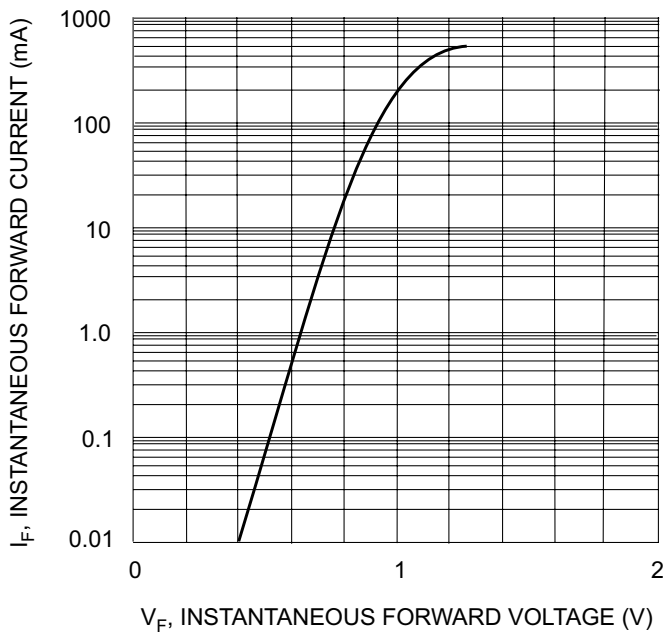


Fig. 1 Forward Characteristics

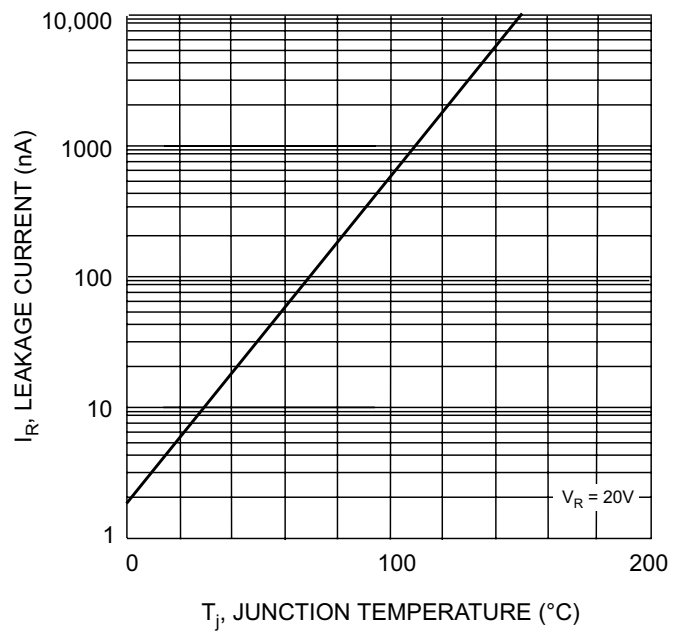


Fig. 2 Leakage Current vs Junction Temperature

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