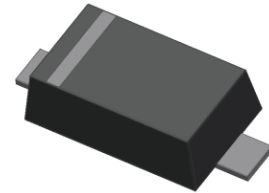
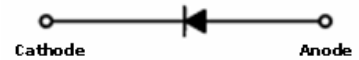


400mW SOD-123 SURFACE MOUNT
Small Outline Flat Lead Plastic Package
General Purpose Application
Fast Switching Diode

Green Product



SOD-123 Flat Lead



ELECTRICAL SYMBOL

Absolute Maximum Ratings $T_A = 25^\circ\text{C}$ unless otherwise noted

| Symbol | Parameter | Value | Units |
|-----------|---|-------------|------------------|
| P_D | Power Dissipation | 400 | mW |
| T_{STG} | Storage Temperature Range | -65 to +150 | $^\circ\text{C}$ |
| T_J | Operating Junction Temperature | +150 | $^\circ\text{C}$ |
| V_{RSM} | Non-Repetitive Peak Reverse Voltage | 100 | V |
| V_{RRM} | Repetitive Peak Reverse Voltage | 75 | V |
| I_{FRM} | Repetitive Peak Forward Current | 300 | mA |
| I_O | Continuous Forward Current | 150 | mA |
| I_{FSM} | Peak Forward Surge Current (Pulse Width=1us) | 2 | A |

These ratings are limiting values above which the serviceability of the diode may be impaired.

Specification Features:

- Fast Switching Device ($T_{RR} < 4.0$ nS)
- General Purpose Diodes
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish
- Band Indicates Cathode
- Weight: approx. 0.01g
- AEC-Q101 Qualified

DEVICE MARKING CODE:

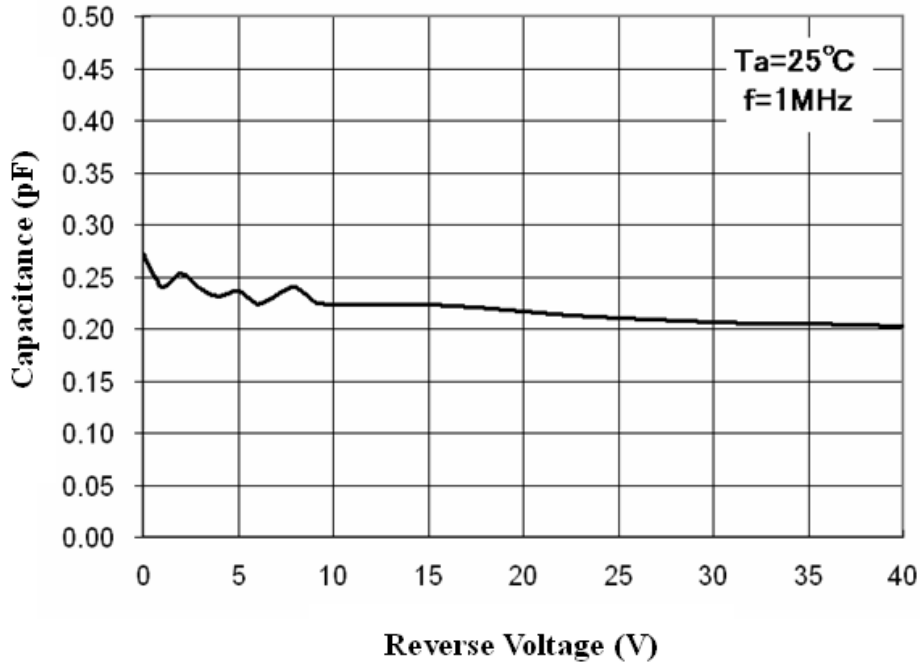
| Device Type | Device Marking |
|-----------------|----------------|
| SMMSD4148T1G-CN | D1 |

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

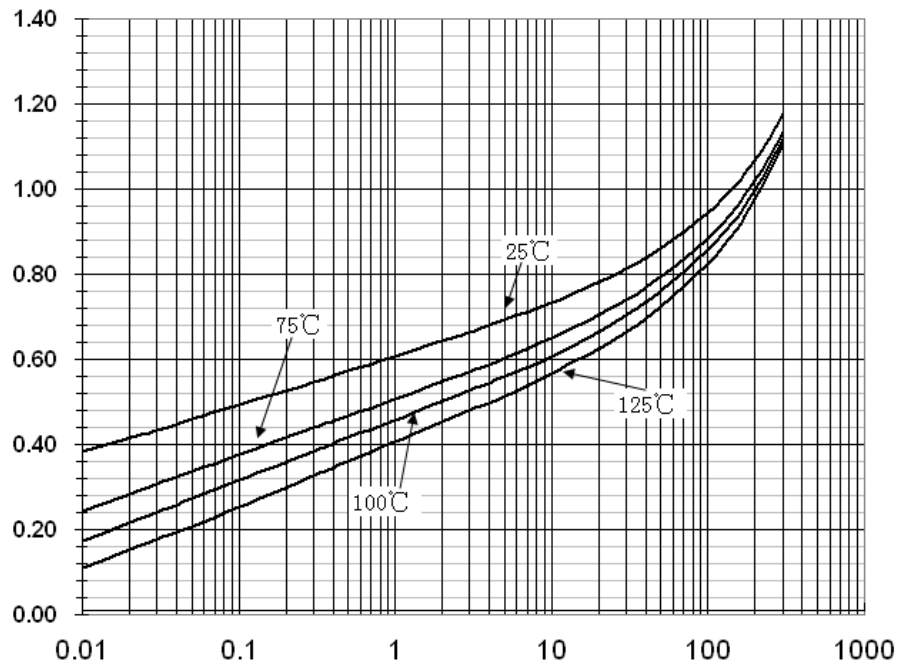
| Symbol | Parameter | Test Condition | Limits | | Unit |
|----------|-------------------------|--|--------|-----|---------------|
| | | | Min | Max | |
| B_V | Breakdown Voltage | $I_R=100\mu\text{A}$ | 100 | | Volts |
| | | $I_R=5\mu\text{A}$ | 75 | | |
| I_R | Reverse Leakage Current | $V_R=20\text{V}$ | | 25 | nA |
| | | $V_R=75\text{V}$ | | 5 | μA |
| V_F | Forward Voltage | $I_F=10\text{mA}$ | 0.62 | 1.0 | Volts |
| T_{RR} | Reverse Recovery Time | $I_F=10\text{mA}$ $I_R=60\text{mA}$ $R_L=100\Omega$ $I_{RR}=1\text{mA}$ | | 4 | nS |
| C | Capacitance | $V_R=0\text{V}, f=1\text{MHz}$ | | 4 | pF |

Typical Performance Characteristics

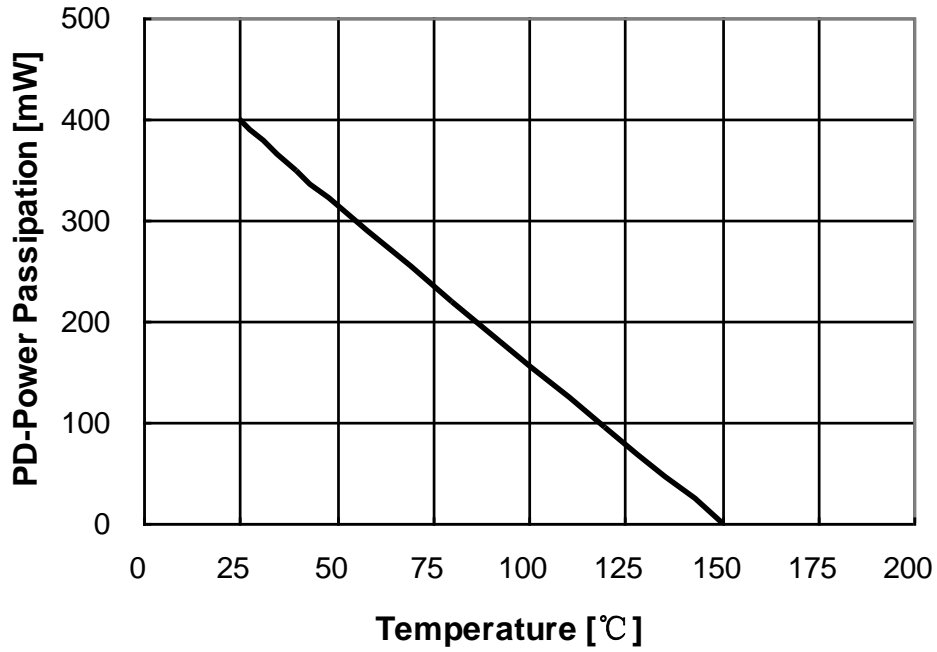
Total Capacitance



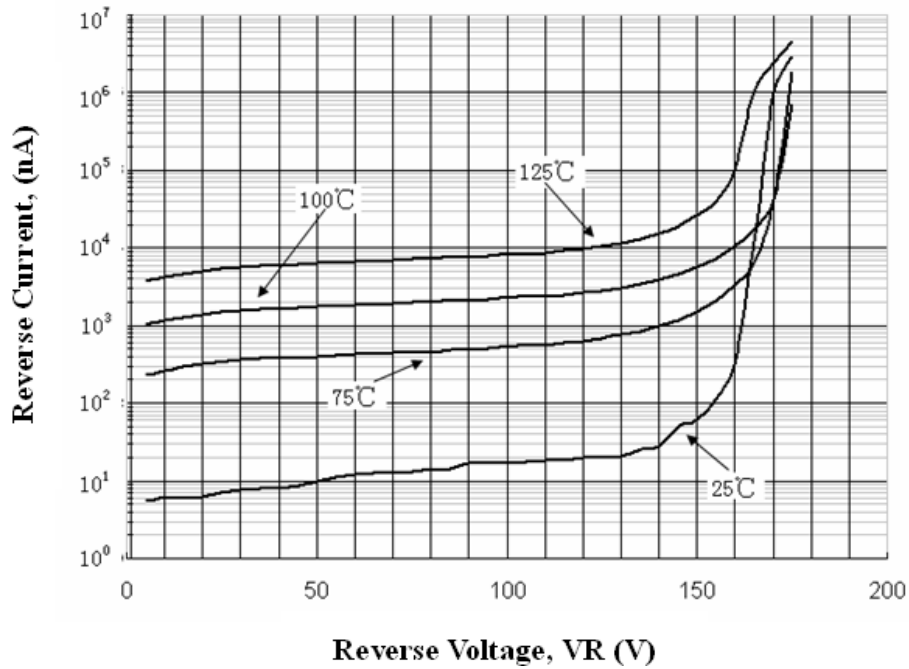
Forward Voltage vs Ambient Temperature



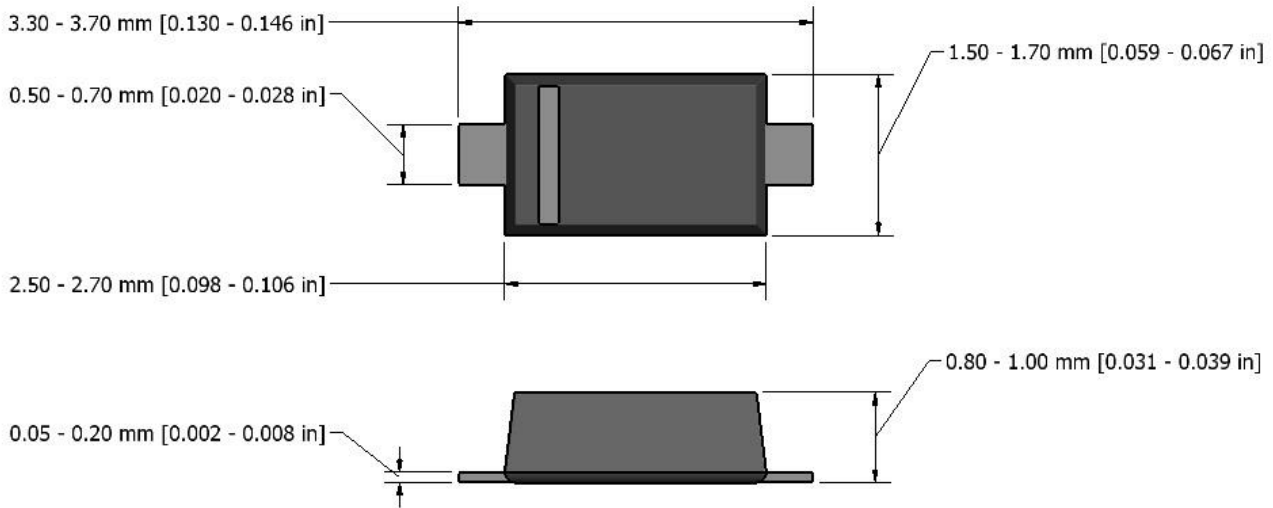
Power Derating Curve



Reverse Current vs Reverse Voltage



Flat Lead SOD-123 Package Outline



Note: Dimensions are exclusive of Burrs, Mold Flash & Tie Bar extrusions.

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