

Maximum Ratings @T_A = 25°C unless otherwise specified

| Characteristic | Symbol | Value | Unit |
|---|---------------------|-------|------|
| Peak Repetitive Reverse Voltage | V _{RRM} | 350 | V |
| Working Peak Reverse Voltage | V _{RWM} | 300 | V |
| DC Blocking Voltage | V _R | 212 | V |
| RMS Reverse Voltage | V _{R(RMS)} | 225 | V |
| Forward Continuous Current | I _{FM} | 625 | mA |
| Repetitive Peak Forward Current | I _{FRM} | 4.0 | mA |
| Non-Repetitive Peak Forward Surge Current | I _{FSM} | 1.0 | A |
| | @ t = 1.0μs | | |
| | @ t = 1.0s | | |

Thermal Characteristics

| Characteristic | Symbol | Value | Unit |
|---|-----------------------------------|-------------|------|
| Power Dissipation (Note 6) | P _D | 400 | mW |
| Thermal Resistance Junction to Ambient Air (Note 6) | R _{θJA} | 312 | °C/W |
| Operating and Storage Temperature Range | T _J , T _{STG} | -65 to +150 | °C |

Electrical Characteristics @T_A = 25°C unless otherwise specified

| Characteristic | Symbol | Min | Typ | Max | Unit | Test Condition |
|------------------------------------|--------------------|-----|----------------------|---------------------|----------|---|
| Reverse Breakdown Voltage (Note 7) | V _{(BR)R} | 350 | — | — | V | I _R = 150μA |
| Forward Voltage | V _{FM} | — | 0.78 0.93 1.03 | 0.87 1.0 1.25 | V | I _F = 20mA I _F = 100mA I _F = 200mA |
| Leakage Current (Note 7) | I _{RM} | — | 30 35 | 100 100 | nA μA | V _R = 240V, T _J = 25°C V _R = 240V, T _J = 150°C |
| Total Capacitance | C _T | — | 1.0 | 5.0 | pF | V _R = 0, f = 1.0MHz |
| Reverse Recovery Time | t _{rr} | — | — | 50 | ns | I _F = I _R = 30mA, I _{rr} = 3.0mA, R _L = 100Ω |

Notes: 6. Valid provided that terminals are kept at ambient room temperature.
7. Short duration pulse test used to minimize self-heating effect.

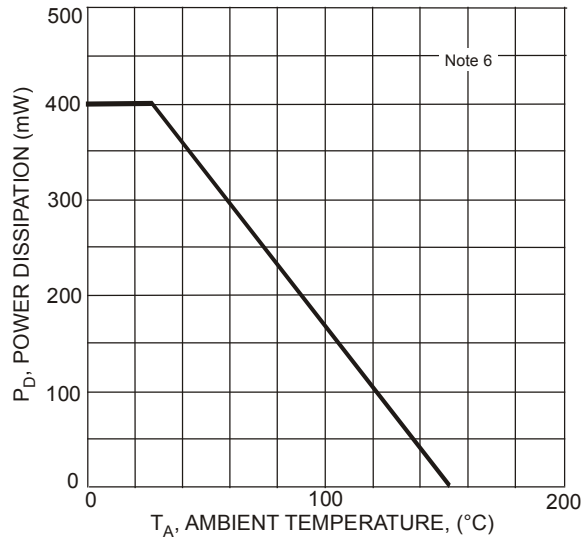


Fig. 1 Power Derating Curve

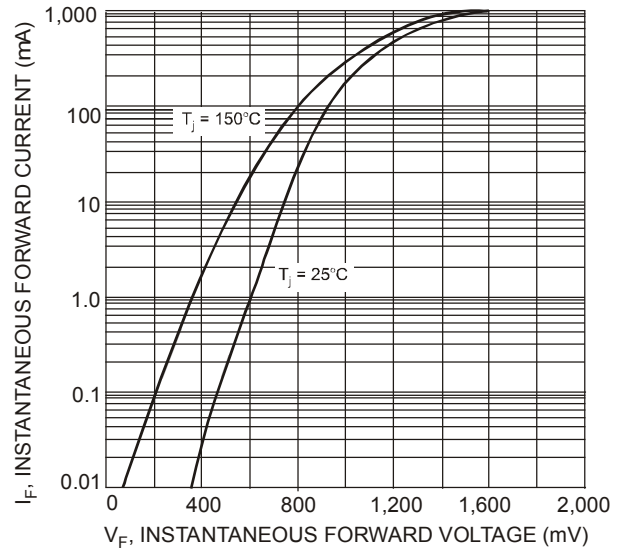


Fig. 2 Typical Forward Characteristics

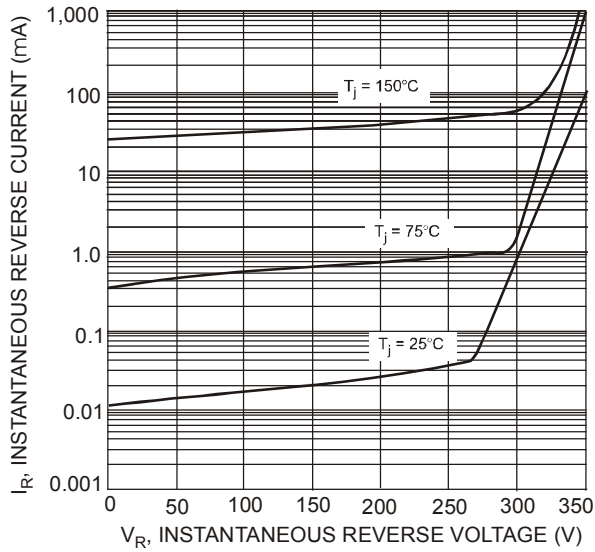


Fig. 3 Typical Reverse Characteristics

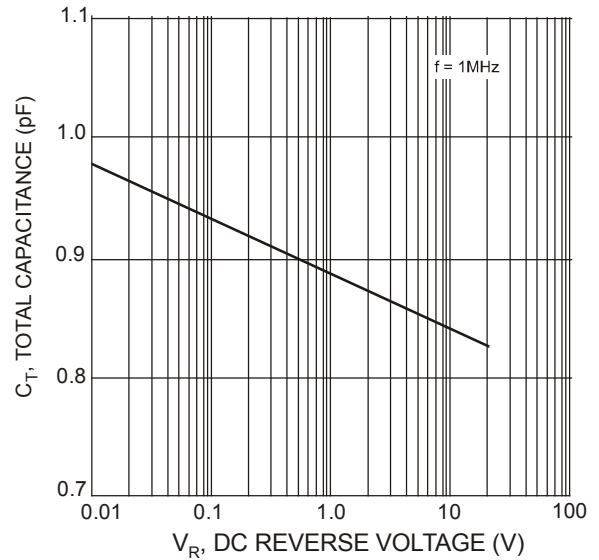
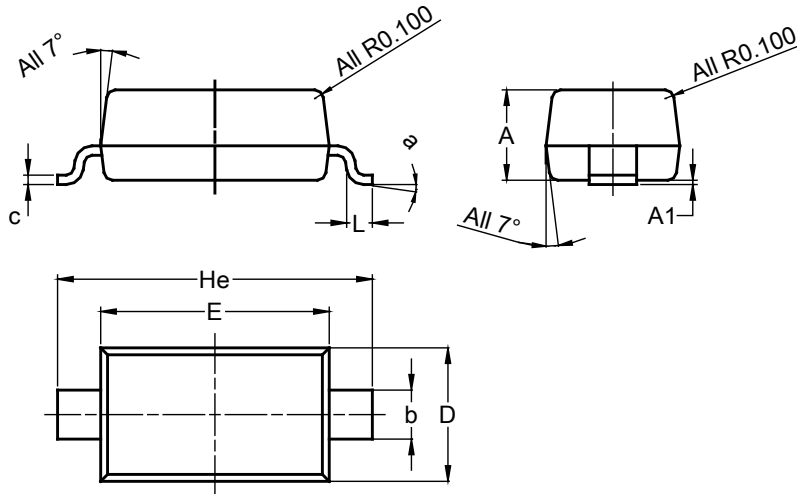


Fig. 4 Typical Total Capacitance vs. Reverse Voltage

Package Outline Dimensions

Please see <http://www.diodes.com/package-outlines.html> for the latest version.

SOD123

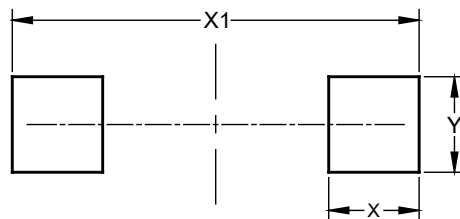


| SOD123 | | | |
|----------------------|------|------|------|
| Dim | Min | Max | Typ |
| A | 1.00 | 1.35 | 1.05 |
| A1 | 0.00 | 0.10 | 0.05 |
| b | 0.52 | 0.62 | 0.57 |
| c | 0.10 | 0.15 | 0.11 |
| D | 1.40 | 1.70 | 1.55 |
| E | 2.55 | 2.85 | 2.65 |
| He | 3.55 | 3.85 | 3.65 |
| L | 0.25 | 0.40 | 0.30 |
| a | 0° | 8° | -- |
| All Dimensions in mm | | | |

Suggested Pad Layout

Please see <http://www.diodes.com/package-outlines.html> for the latest version.

SOD123



| Dimensions | Value (in mm) |
|------------|---------------|
| X | 0.900 |
| X1 | 4.050 |
| Y | 0.950 |

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