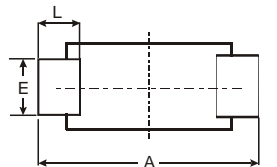
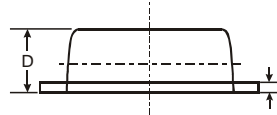
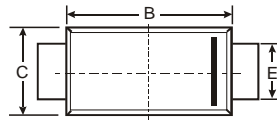
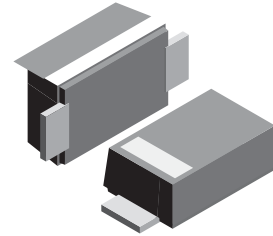


Features

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Negligible Reverse Recovery Time
- Very Low Reverse Capacitance

Mechanical Data

- Case: SOD-123FL
plastic body over passivated junction
- Terminals : Plated axial leads,
- solderable per MIL-STD-750, Method 2026
- Polarity : Color band denotes cathode end
- Mounting Position : Any
- Weight: 0.0007 ounce, 0.02 grams



| SOD-123FL | | | |
|----------------------|-------|------|------|
| Dim | Min | Max | Typ |
| A | 3.58 | 3.72 | 3.65 |
| B | 2.72 | 2.78 | 2.75 |
| C | 1.77 | 1.83 | 1.80 |
| D | 1.02 | 1.08 | 1.05 |
| E | 0.097 | 1.03 | 1.00 |
| H | 0.13 | 0.17 | 0.15 |
| L | 0.53 | 0.57 | 0.55 |
| All Dimensions in mm | | | |

Maximum Ratings @ T_A = 25°C unless otherwise specified

| Characteristic | Symbol | SD101AW | SD101BW | SD101CW | Unit |
|--|-----------------------------------|---------|-------------|---------|---------|
| Peak Repetitive Reverse Voltage | V _{RRM} | 60 | 50 | 40 | V |
| Working Peak Reverse Voltage | V _{RWM} | | | | |
| DC Blocking Voltage | V _R | | | | |
| RMS Reverse Voltage | V _{R(RMS)} | 42 | 35 | 28 | V |
| Forward Continuous Current (Note 1) | I _{FM} | | 15 | | mA |
| Non-Repetitive Peak Forward Surge Current @ t ≤ 1.0s @ t = 10μs | I _{FSM} | | 50 2.0 | | mA A |
| Power Dissipation (Note 1) | P _d | | 400 | | mW |
| Thermal Resistance, Junction to Ambient Air (Note 1) | R _{θJA} | | 300 | | °C/W |
| Operating and Storage Temperature Range | T _j , T _{STG} | | -65 to +125 | | °C |

Electrical Characteristics @ T_A = 25°C unless otherwise specified

| Characteristic | Symbol | Min | Max | Unit | Test Condition |
|------------------------------------|---|----------------|--|------|---|
| Reverse Breakdown Voltage (Note 2) | SD101AW SD101BW SD101CW V _{(BR)R} | 60 50 40 | — | V | I _R = 10μA I _R = 10μA I _R = 10μA |
| Forward Voltage Drop (Note 2) | SD101AW SD101BW SD101CW SD101AW SD101BW SD101CW V _{FM} | — | 0.41 0.40 0.39 1.00 0.95 0.90 | V | I _F = 1.0mA I _F = 1.0mA I _F = 1.0mA I _F = 15mA I _F = 15mA I _F = 15mA |
| Peak Reverse Current (Note 2) | SD101AW SD101BW SD101CW I _{RM} | — | 200 | nA | V _R = 50V V _R = 40V V _R = 30V |
| Total Capacitance | SD101AW SD101BW SD101CW C _T | — | 2.0 2.1 2.2 | pF | V _R = 0V, f = 1.0MHz |
| Reverse Recovery Time | t _{rr} | — | | | I _F = I _R = 5.0mA, I _{rr} = 0.1 x I _R , R _L = 100Ω |

- Notes:
1. Part mounted on FR-4 board with recommended pad layout
 2. Short duration test pulse used to minimize self-heating effect.

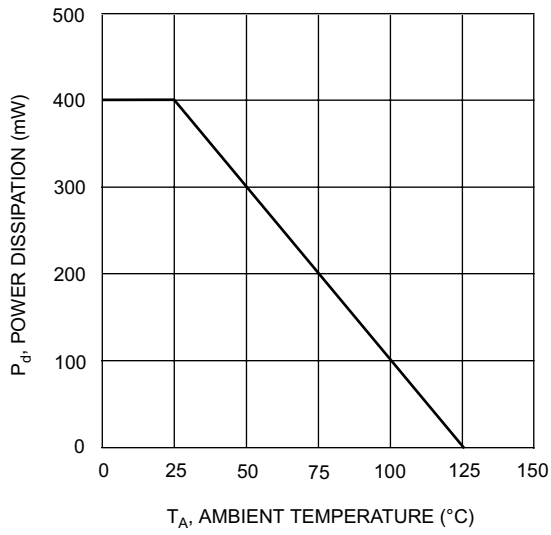


Fig. 1 Power Derating Curve

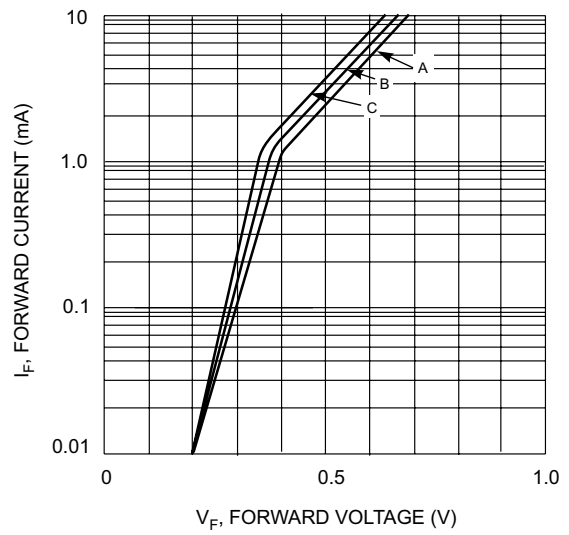


Fig. 2 Typical Forward Characteristic

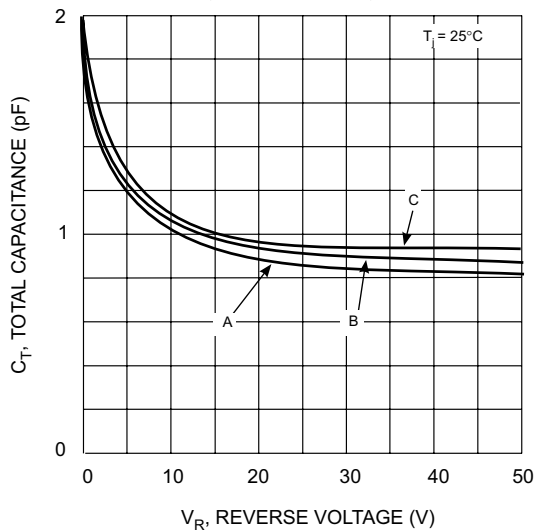


Fig. 3 Typ. Total Capacitance vs Reverse Voltage