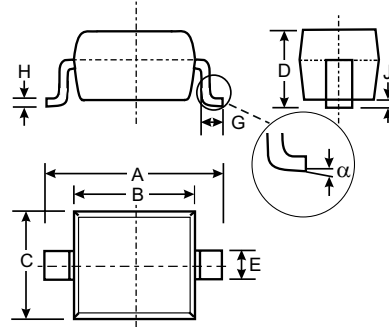


Features

- Low Forward Voltage Drop
- Guard Ring Die Construction for Transient Protection
- Ideal for low logic level applications
- Low Capacitance

Mechanical Data

- Case: SOD-323, Plastic
- Case Material - UL Flammability Rating Classification 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020A
- Polarity: Cathode Band
- Leads: Solderable per MIL-STD-202, Method 208
- Marking: Marking Code and Date Code
- Marking Code: SG



| SOD-323 | | |
|----------------------|--------------|------|
| Dim | Min | Max |
| A | 2.30 | 2.70 |
| B | 1.60 | 1.80 |
| C | 1.20 | 1.40 |
| D | 1.05 Typical | |
| E | 0.25 | 0.35 |
| G | 0.20 | 0.40 |
| H | 0.10 | 0.15 |
| J | 0.05 Typical | |
| α | 0° | 8° |
| All Dimensions in mm | | |

Maximum Ratings @ T_A = 25°C unless otherwise specified

| Characteristic | Symbol | SD107WS | Unit |
|--|--|------------|------|
| Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage | V _{RRM} V _{RWM} V _R | 30 | V |
| RMS Reverse Voltage | V _{R(RMS)} | 21 | V |
| Forward Continuous Current (Note 1) | I _{FM} | 100 | mA |
| Non-Repetitive Peak Forward Surge Current @ t ≤ 10ms | I _{FSM} | 750 | mA |
| Power Dissipation (Note 1) | P _d | 250 | mW |
| Thermal Resistance, Junction to Ambient Air (Note 1) | R _{θJA} | 500 | °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 2) | V _{(BR)R} | 30 | - | - | V | I _R = 100μA |
| Forward Voltage Drop (Note 2) | V _{FM} | - | 300 360 470 580 | - - 550 800 | mV | @ I _F = 2.0mA @ I _F = 15mA @ I _F = 50mA @ I _F = 100mA |
| Peak Reverse Current (Note 2) | I _{RM} | - | - | 1.0 | μA | V _R = 25V |
| Total Capacitance | C _T | - | 7 | - | pF | V _R = 10V f = 1.0 MHz |

- Notes: 1. Part mounted on FR-4 PC board with recommended pad layout, which can be found on our website at <http://www.diodes.com/datasheets/ap02001.pdf>.
2. Short duration test pulse used in minimizing self-heating effect.

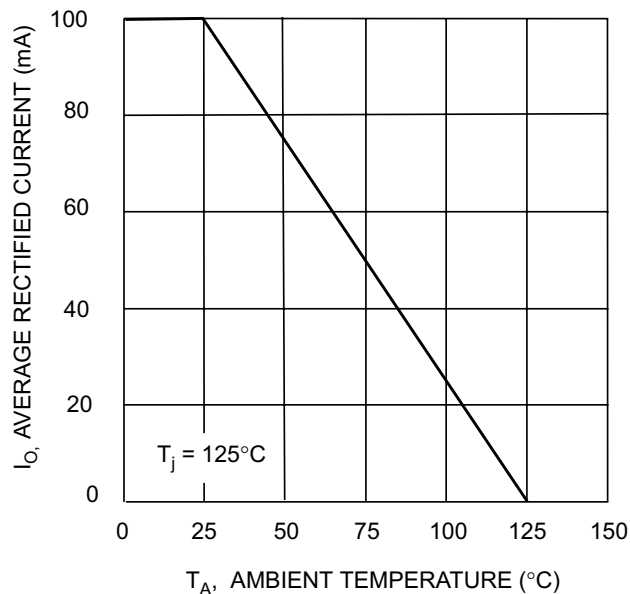


Fig. 1 Forward Current Derating Curve

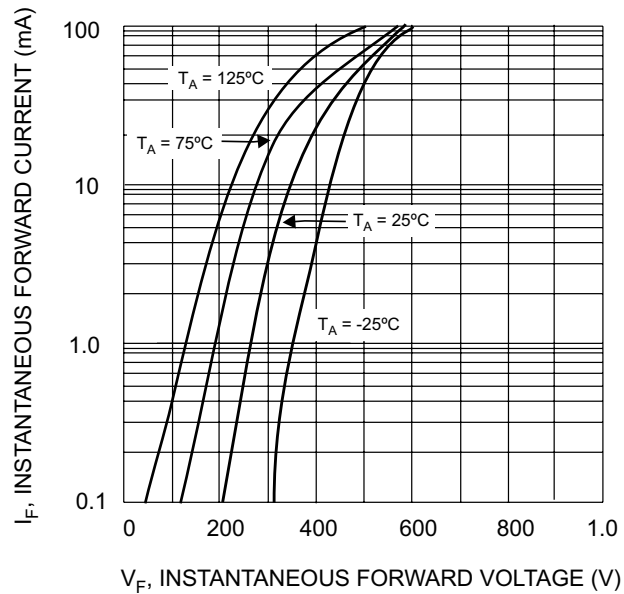


Fig. 2 Typical Forward Characteristics

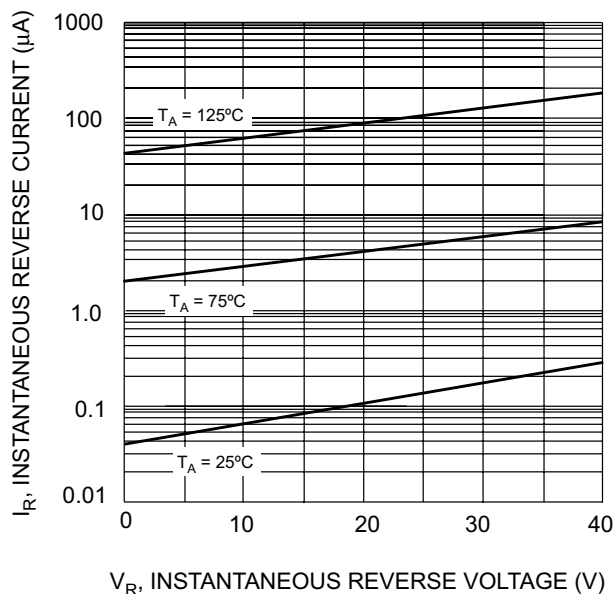


Fig. 3 Typical Reverse Characteristics

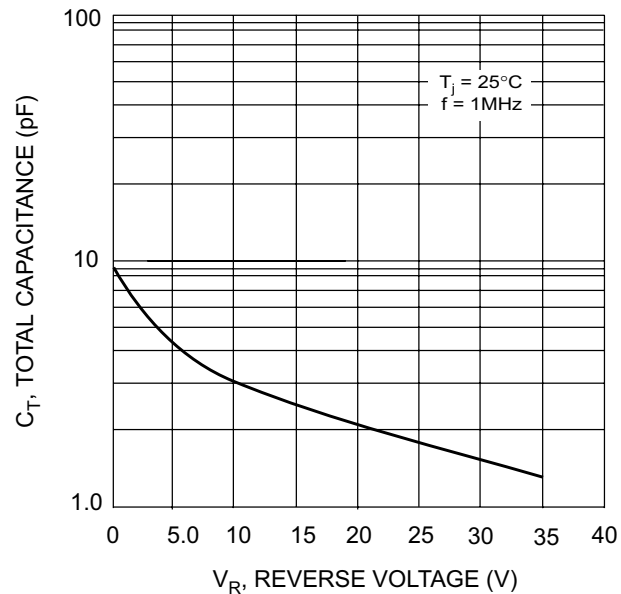


Fig. 4 Total Capacitance vs. Reverse Voltage

Ordering Information (Note 1)

| Device | Packaging | Shipping |
|-----------|-----------|------------------|
| SD107WS-7 | SOD-323 | 3000/Tape & Reel |

Notes: 1. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

Marking Information

