

Features

- Low Forward Voltage Drop
- Guard Ring Die Construction for Transient Protection
- Ideal for low logic level applications
- Low Capacitance
- **Lead Free by Design/RoHS Compliant (Note 1)**
- **"Green" Device, Note 4 and 5**
- **Qualified to AEC-Q101 Standards for High Reliability**

Mechanical Data

- Case: SOD-523
- Case Material: Molded Plastic, "Green" Molding Compound, Note 5. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020D
- Terminal Connections: Cathode Band
- Terminals: Finish - Matte Tin annealed over Alloy 42 leadframe. Solderable per MIL-STD-202, Method 208
- Marking Information: See Page 3
- Ordering Information: See Page 3
- Weight: 0.002 grams (approximate)



Top View

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

| Characteristic | Symbol | Value | Unit |
|---|--------------|-------|------|
| Peak Reverse Voltage | V_{RM} | 40 | V |
| DC Reverse Voltage | V_R | 30 | V |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 21 | V |
| Average Rectified Current | I_O | 30 | mA |
| Non-Repetitive Peak Forward Surge Current @8.3ms Single half sine-wave superimposed on rated load | I_{FSM} | 200 | mA |

Thermal Characteristics

| Characteristic | Symbol | Value | Unit |
|--|-----------------|-------------|---------------------------|
| Power Dissipation (Note 2) | P_D | 150 | mW |
| Thermal Resistance, Junction to Ambient (Note 2) | $R_{\theta JA}$ | 667 | $^\circ\text{C}/\text{W}$ |
| Operating and Storage Temperature Range | T_J, T_{STG} | -40 to +125 | $^\circ\text{C}$ |

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

| Characteristic | Symbol | Min | Typ | Max | Unit | Test Conditions |
|------------------------------------|-------------|-----|-----|-----|---------------|--------------------------------------|
| Reverse Breakdown Voltage (Note 3) | $V_{(BR)R}$ | 40 | — | — | V | $I_R = 10\mu\text{A}$ |
| Forward Voltage | V_F | — | 290 | 370 | mV | $I_F = 1\text{mA}$ |
| Peak Reverse Current (Note 3) | I_R | — | — | 0.5 | μA | $V_R = 30\text{V}$ |
| Total Capacitance | C_T | — | 2 | — | pF | $V_R = 1\text{V}, f = 1.0\text{MHz}$ |

- Notes:
1. No purposefully added lead.
 2. Part mounted on FR-4 board with recommended pad layout, which can be found on our website at <http://www.diodes.com/datasheets/ap02001.pdf>.
 3. Short duration pulse test used to minimize self-heating effect.
 4. Diodes Inc.'s "Green" Policy can be found on our website at http://www.diodes.com/products/lead_free/index.php.
 5. Product manufactured with date code 0627 (week 27, 2006) and newer are built with Green Molding Compound. Product manufactured prior to date code 0627 are built with Non-Green Molding Compound and may contain Halogens or Sb2O3 Fire Retardants.

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 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

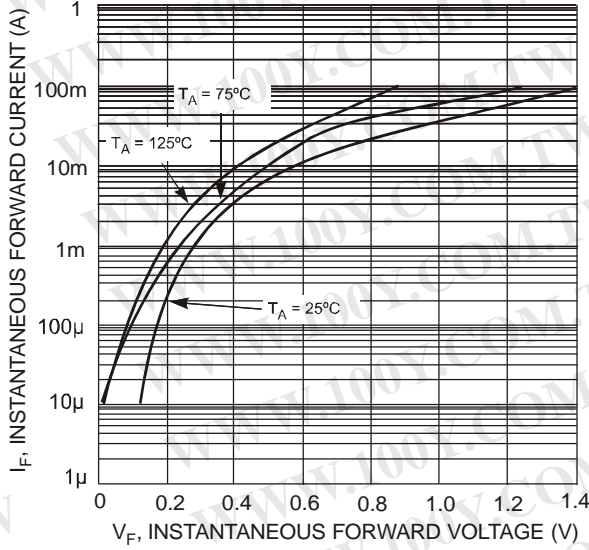


Fig. 1 Typical Forward Characteristics

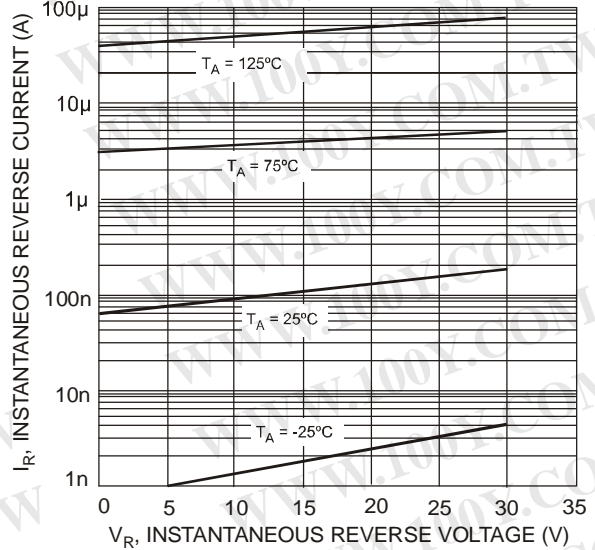


Fig. 2 Typical Reverse Characteristics

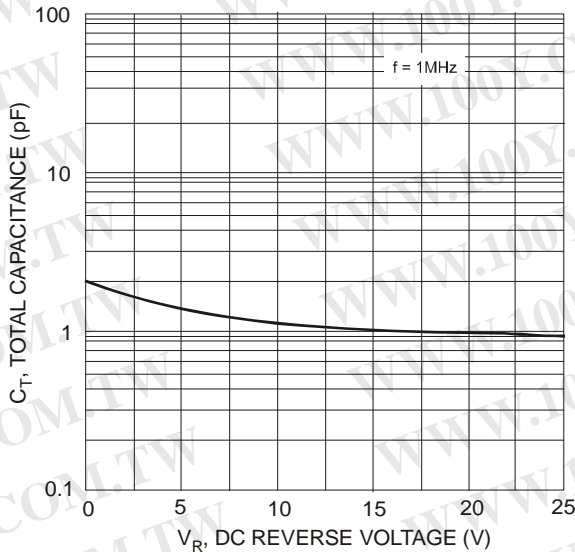


Fig. 3 Total Capacitance vs. Reverse Voltage

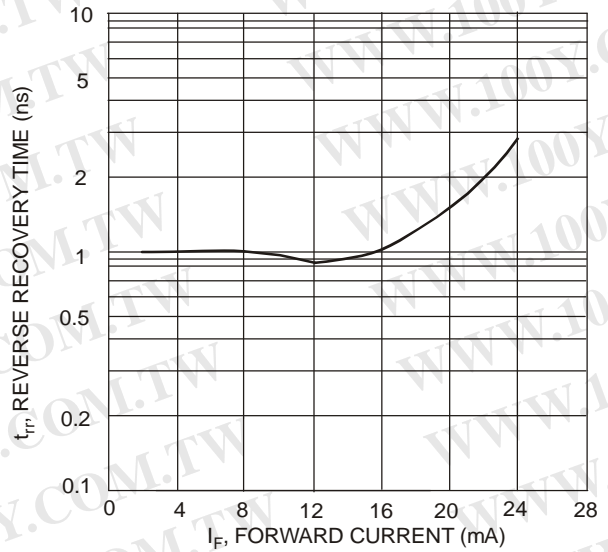


Fig. 4 Typical Reverse Recovery Time Characteristics

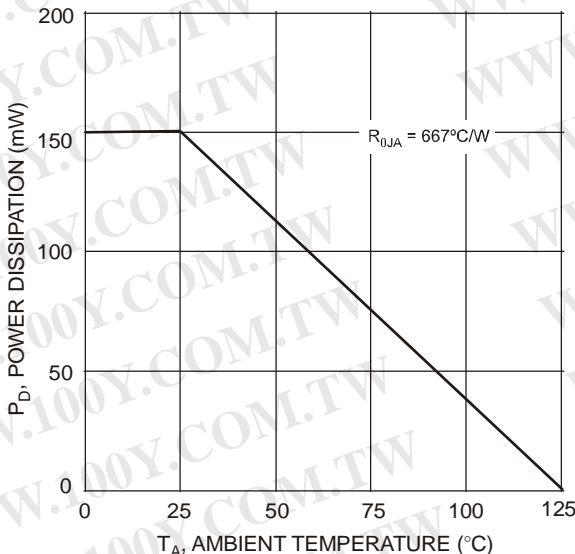


Fig. 5 Power Derating Curve

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Ordering Information (Notes 5 & 6)

| Part Number | Case | Packaging |
|---------------------|---------|------------------|
| SDM03U40-7 (Note 7) | SOD-523 | 3000/Tape & Reel |
| SDM03U40-76K | SOD-523 | 6000/Tape & Reel |

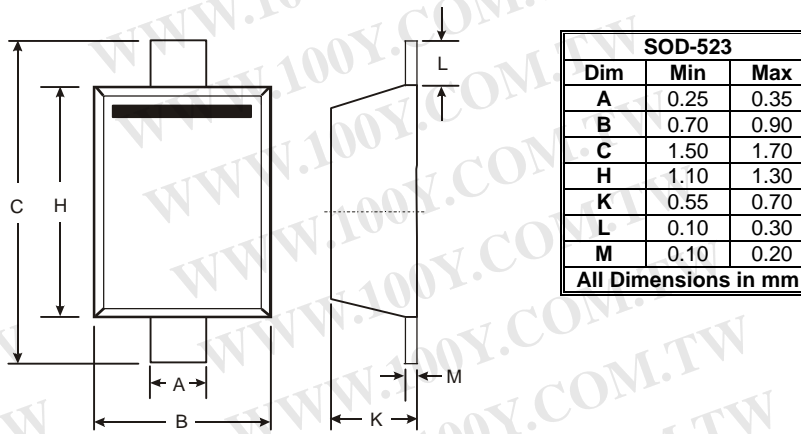
Notes: 6. For packaging details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.
7. Dispensed in every other cavity of the tape.

Marking Information

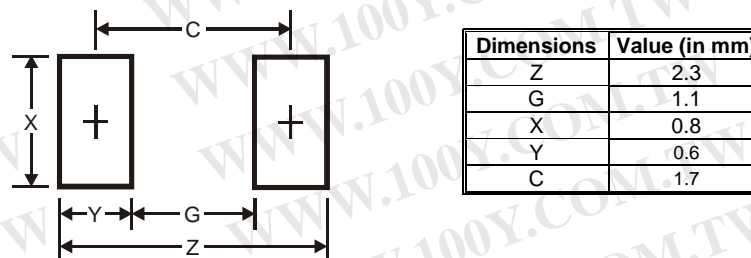


LK = Product Type Marking Code

Package Outline Dimensions



Suggested Pad Layout



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