



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

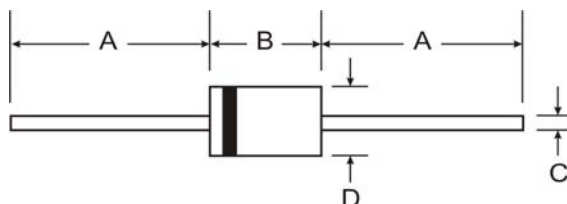


Features

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Low Reverse Recovery Time
- Low Reverse Capacitance
- Lead Free Finish, RoHS Compliant (Note 2)

Mechanical Data

- Case: DO-35
- Case Material: Glass
- Moisture Sensitivity: Level 1 per J-STD-020C
- Leads: Solderable per MIL-STD-202, Method 208
- Terminals: Finish — Sn96.5Ag3.5. Solderable per MIL-STD-202, Method 208 (3)
- Polarity: Cathode Band
- Marking Information: See Page 3
- Ordering Information: See Page 3
- Weight: 0.13 grams (approximate)



| DO-35 | | |
|----------------------|-------|------|
| Dim | Min | Max |
| A | 25.40 | — |
| B | — | 4.00 |
| C | — | 0.60 |
| D | — | 2.00 |
| All Dimensions in mm | | |

Maximum Ratings @T_A = 25°C unless otherwise specified

| Characteristic | Symbol | SD103A | SD103B | SD103C | Unit |
|--|---------------------|-------------|--------|--------|------|
| Peak Repetitive Reverse Voltage | V _{RRM} | 40 | 30 | 20 | V |
| Working Peak Reverse Voltage | V _{RWM} | | | | |
| DC Blocking Voltage | V _R | | | | |
| RMS Reverse Voltage | V _{R(RMS)} | 28 | 21 | 14 | V |
| Forward Continuous Current | I _{FM} | 350 | | | mA |
| Repetitive Peak Forward Current (Note 1) @ t ≤ 1.0s | I _{FRM} | 1.0 | | | A |
| Non-Repetitive Peak Forward Surge Current 8.3 ms Half Sine Wave | I _{FSM} | 15 | | | A |
| Power Dissipation (Note 1) | P _d | 400 | | | mW |
| Thermal Resistance, Junction to Ambient Air (Note 1) | R _{θJA} | 300 | | | °C/W |
| Operating Junction Temperature | T _j | 125 | | | °C |
| Storage Temperature Range | T _{STG} | -55 to +150 | | | °C |

Electrical Characteristics @T_A = 25°C unless otherwise specified

| Characteristic | Symbol | Min | Typ | Max | Unit | Test Condition |
|--|--------------------|----------------|-----|--------------|------|--|
| Reverse Breakdown Voltage (Note 3) | V _{(BR)R} | 40 30 20 | — | — | V | I _R = 100μA |
| Maximum Forward Voltage Drop | V _{FM} | — | — | 0.37 0.60 | V | I _F = 20mA I _F = 200mA |
| Maximum Peak Reverse Current (Note 3) | I _{RM} | — | — | 5.0 | μA | V _R = 30V V _R = 20V V _R = 10V |
| Total Capacitance | C _T | — | 50 | — | pF | V _R = 0V, f = 1.0MHz |
| Reverse Recovery Time | t _{rr} | — | 10 | — | ns | I _F = I _R = 50mA to 200mA, I _{rr} = 0.1 x I _R , R _L = 100Ω |

- Notes:
1. Valid provided that device terminals are kept at ambient temperature.
 2. EC Directive 2002/95/EC (RoHS) revision 13.2.2003. Glass and high temperature solder exemptions applied where applicable, see EU Directive Annex Notes 5 and 7.
 3. Short duration test pulse used to minimize self-heating effect.

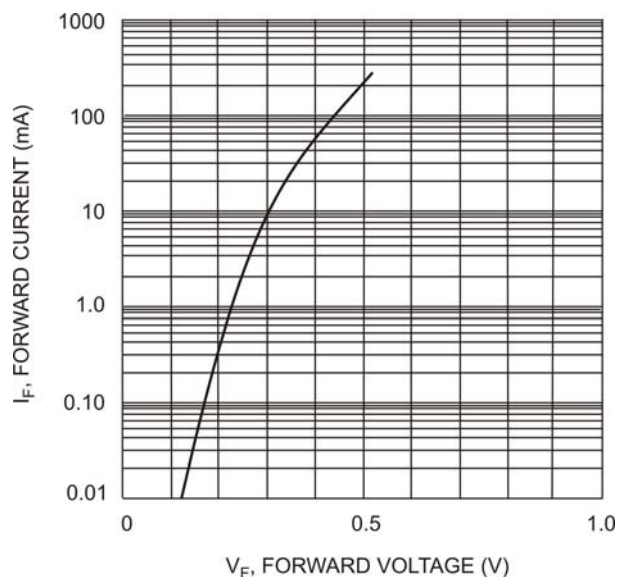


Fig. 1 Typical Forward Characteristics

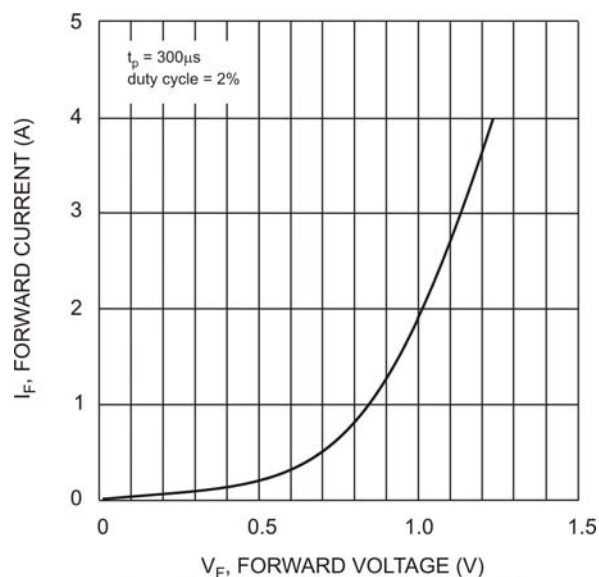


Fig. 2 Typical High Current Fwd Characteristics

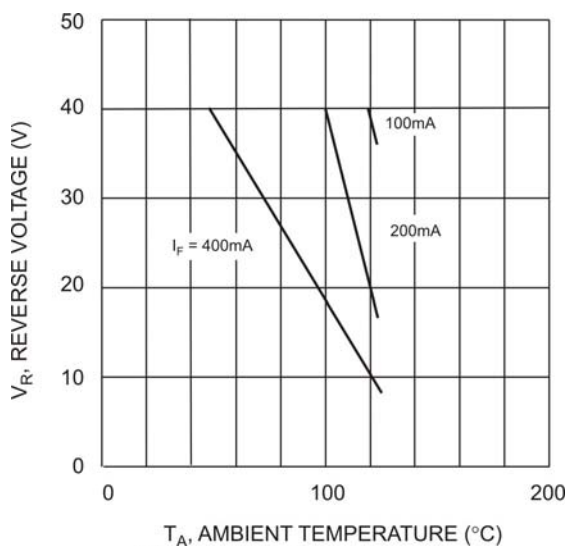


Fig. 3 Blocking Voltage Derating Curves

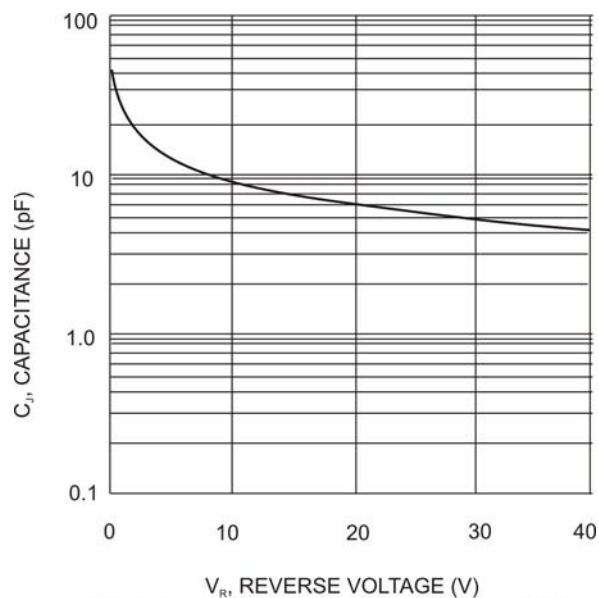


Fig. 4 Typ. Junction Capacitance vs Reverse Voltage

Ordering Information (Note 4)

| Device | Packaging | Shipping |
|----------|-----------|----------------------|
| SD103A-A | DO-35 | 10,000 / Ammo Pak |
| SD103A-T | DO-35 | 10,000 / Tape & Reel |
| SD103B-A | DO-35 | 10,000 / Ammo Pak |
| SD103B-T | DO-35 | 10,000 / Tape & Reel |
| SD103C-A | DO-35 | 10,000 / Ammo Pak |
| SD103C-T | DO-35 | 10,000 / Tape & Reel |

Notes: 4. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

Marking Information



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