



Micro Commercial Components
 21201 Itasca Street Chatsworth
 CA 91311
 Phone: (818) 701-4933
 Fax: (818) 701-4939

SD101A THRU SD101C

Small Signal Schottky Diodes

Features

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

Mechanical Data

- Case: DO-35, Glass
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Indicated by Cathode Band

Maximum Ratings @ 25°C Unless Otherwise Specified

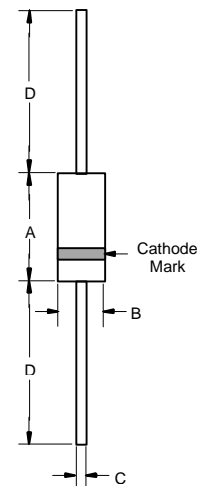
| Characteristic | Symbol | SD101A | SD101B | SD101C |
|---|--------------|---------------|--------|--------|
| Peak Repetitive Reverse Voltage | V_{RRM} | | | |
| Working Peak Reverse Voltage | V_{RWM} | 60V | 50V | 40V |
| DC Blocking Voltage | V_R | | | |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 42V | 35V | 28V |
| Maximum single cycle surge 10us square wave | I_{FSM} | 2.0A | | |
| Power Dissipation(Note 1) | P_d | 400mW | | |
| Thermal Resistance, Junction to Ambient | R | 300K/W | | |
| Junction Temperature | T_j | 125°C | | |
| Operation/Storage Temp. Range | T_{STG} | -55 to +150°C | | |

Electrical Characteristics @ 25°C Unless Otherwise Specified

| Characteristic | Symbol | Max | Test Condition |
|------------------------------|----------------------------|-------------------------|---|
| Leakage Current | SD101A SD101B SD101C | 200nA 200nA 200nA | $V_R=50V$ $V_R=40V$ $V_R=30V$ |
| Maximum Forward Voltage Drop | SD101A SD101B SD101C | 0.41V 0.4V 0.39V | $I_F=1mA$ |
| | SD101A SD101B SD101C | 1V 0.95V 0.9V | $I_F=15mA$ |
| Junction Cap. | SD101A SD101B SD101C | 2.0pF 2.1pF 2.2pF | $V_R=0V, f=1.0MHz$ |
| Reverse Recovery Time | t_{rr} | 1ns | $I_F=I_R=50mA$, recover to 200mA/0.1I _R |

Note: 1. Valid provided that electrodes are kept at ambient temperature

DO-35



| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|------|-------|------|------|
| | INCHES | | MM | | |
| A | --- | .166 | --- | 4.2 | |
| B | --- | .079 | --- | 2.00 | |
| C | --- | .020 | --- | .52 | |
| D | 1.000 | --- | 25.40 | --- | |

SD101A thru SD101C



Figure 1. Typical variation of forward current vs. fwd. Voltage for primary conduction through the schottky barrier

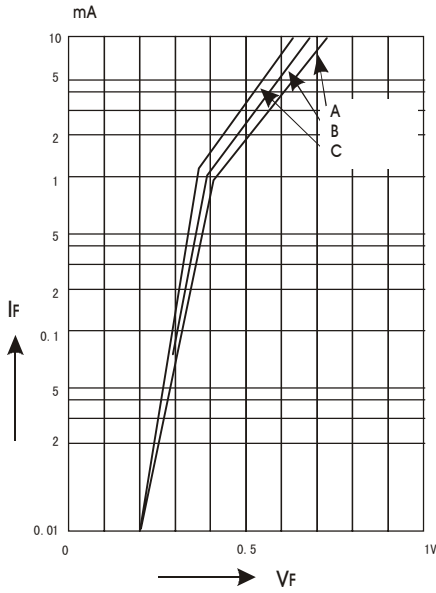


Figure 2. Typical forward conduction curve of combination Schottky barrier and PN junction guard ring

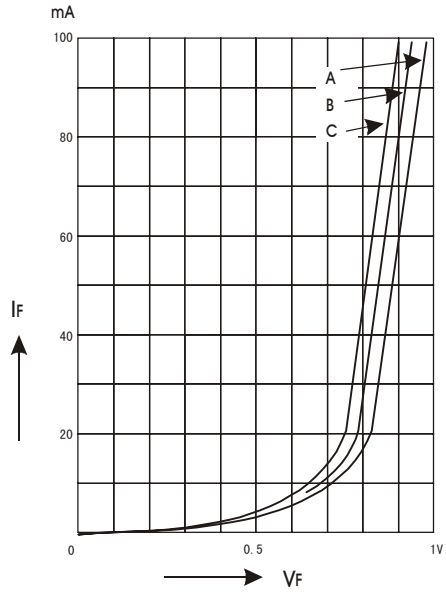


Figure 3. Typical variation of reverse current at versus temperature

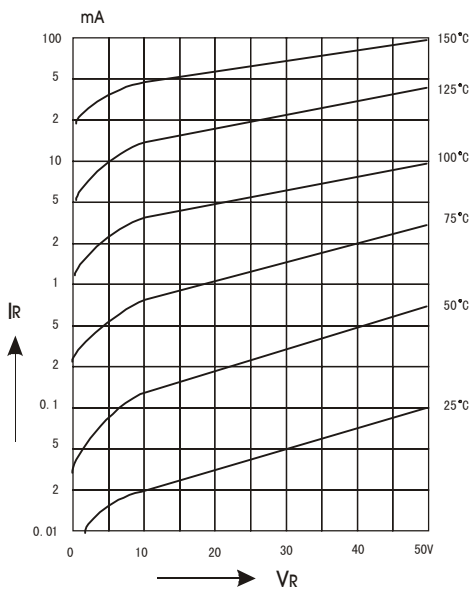


Figure 4. Typical capacitance curve as a function of reverse voltage

