

MCL101A...MCL101C

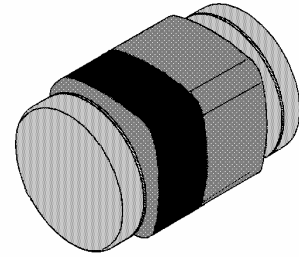
SILICON SCHOTTKY BARRIER DIODES

for general purpose applications

LS-31

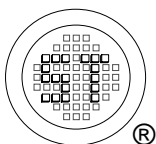
Features

- Fits onto SOD 323 / SOT 23 footprints
- Micro Melf package



Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

| | | Symbol | Value | Unit |
|---|---------|-----------|---------------|------------------|
| Peak Reverse Voltage | MCL101A | V_{RRM} | 60 | V |
| | MCL101B | V_{RRM} | 50 | V |
| | MCL101C | V_{RRM} | 40 | V |
| Power Dissipation at $T_{amb} = 25^\circ\text{C}$ | | P_{tot} | 400 | mW |
| Max. Single Cycle Surge 10 s Squarewave | | I_{FSM} | 2 | A |
| Junction Temperature | | T_j | 200 | $^\circ\text{C}$ |
| Storage Temperature Range | | T_s | - 55 to + 200 | $^\circ\text{C}$ |



SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001:2004
Certificate No. 71116



ISO 9001:2000
Certificate No. 0506098

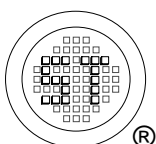
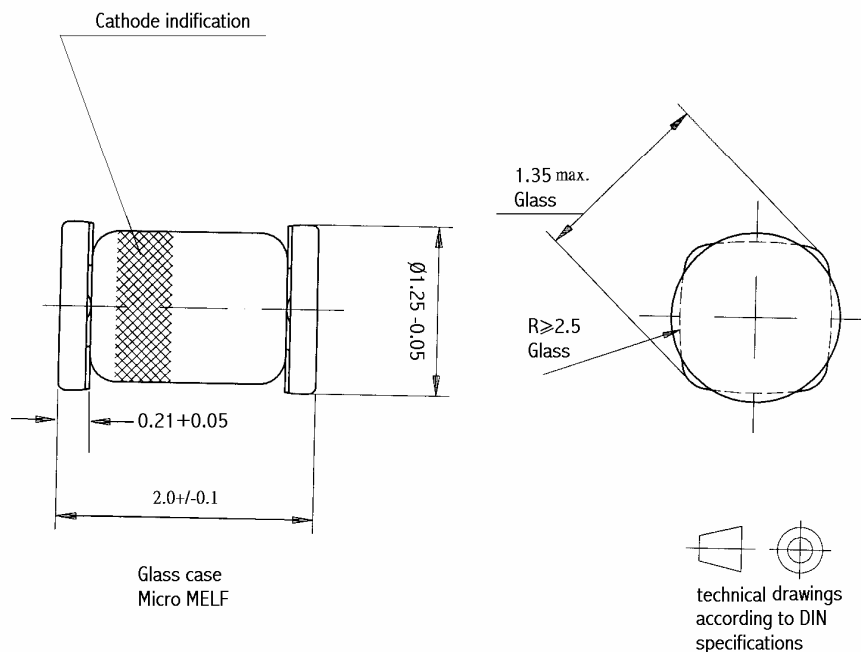
Dated : 20/08/2002

MCL101A...MCL101C

Characteristics at $T_{amb} = 25^{\circ}C$

| | | Symbol | Min. | Typ. | Max. | Unit |
|--|---------|-------------|------|------|------|------|
| Reverse Breakdown Voltage at $I_R = 10 \mu A$ | MCL101A | $V_{(BR)R}$ | 60 | - | - | V |
| | MCL101B | $V_{(BR)R}$ | 50 | - | - | V |
| | MCL101C | $V_{(BR)R}$ | 40 | - | - | V |
| Leakage Current at $V_R = 50 V$ at $V_R = 40 V$ at $V_R = 30 V$ | MCL101A | I_R | - | - | 200 | nA |
| | MCL101B | I_R | - | - | 200 | nA |
| | MCL101C | I_R | - | - | 200 | nA |
| Forward Voltage Drop at $I_F = 1 mA$ at $I_F = 15 mA$ | MCL101A | V_F | - | - | 0.41 | V |
| | MCL101B | V_F | - | - | 0.4 | V |
| | MCL101C | V_F | - | - | 0.39 | V |
| | MCL101A | V_F | - | - | 1 | V |
| | MCL101B | V_F | - | - | 0.95 | V |
| | MCL101C | V_F | - | - | 0.9 | V |
| Junction Capacitance at $V_R = 0 V, f = 1 MHz$ | MCL101A | C_{tot} | - | - | 2 | pF |
| | MCL101B | C_{tot} | - | - | 2.1 | pF |
| | MCL101C | C_{tot} | - | - | 2.2 | pF |
| Reverse Recovery Time at $I_F = I_R = 5 mA$, recover to $0.1 I_R$ | | t_{rr} | - | - | 1 | ns |

Dimensions in mm



SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002
Certificate No. 05103

ISO 14001:2004
Certificate No. 7116

ISO 9001:2000
Certificate No. 0506098

Dated : 20/08/2002