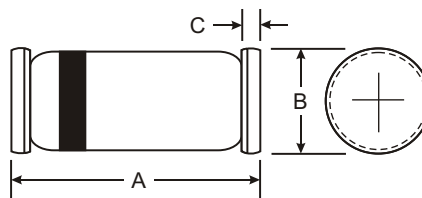


### Features

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

### Mechanical Data

Case: MiniMELF, Glass  
 Terminals: Solderable per MIL-STD-202, Method 208  
 Marking: Cathode Band Only  
 Polarity: Cathode Band  
 Weight: 0.05 grams (approx.)



| MiniMELF             |      |      |
|----------------------|------|------|
| Dim                  | Min  | Max  |
| A                    | 3.30 | 3.70 |
| B                    | 1.30 | 1.60 |
| C                    | 0.28 | 0.50 |
| All Dimensions in mm |      |      |

### Maximum Ratings @ T<sub>A</sub> = 25 °C unless otherwise specified

| Characteristic                                                     | Symbol              | LLSD101A    | LLSD101B | LLSD101C | Unit    |
|--------------------------------------------------------------------|---------------------|-------------|----------|----------|---------|
| Peak Repetitive Reverse Voltage                                    | V <sub>RRM</sub>    | 60          | 50       | 40       | V       |
| Working Peak Reverse Voltage                                       | V <sub>RWM</sub>    |             |          |          |         |
| DC Blocking Voltage                                                | V <sub>R</sub>      |             |          |          |         |
| RMS Reverse Voltage                                                | V <sub>R(RMS)</sub> | 42          | 35       | 28       | V       |
| Forward Continuous Current (Note 1)                                | I <sub>FM</sub>     | 15          |          |          | mA      |
| Non-Repetitive Peak Forward Surge Current @ t = 1.0s<br>@ t = 10 s | I <sub>FSM</sub>    | 50<br>2.0   |          |          | mA<br>A |
| Power Dissipation (Note 1)                                         | P <sub>d</sub>      | 400         |          |          | mW      |
| Thermal Resistance, Junction to Ambient Air (Note 1)               | R <sub>JA</sub>     | 375         |          |          | C/W     |
| Operating Temperature Range                                        | T <sub>j</sub>      | -55 to +125 |          |          | °C      |
| Storage Temperature Range                                          | T <sub>STG</sub>    | -55 to +150 |          |          | °C      |

### Electrical Characteristics @ T<sub>A</sub> = 25 °C unless otherwise specified

| Characteristic                | Symbol          | Min | Max                                          | Unit | Test Condition                                                                                                                                        |
|-------------------------------|-----------------|-----|----------------------------------------------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Forward Voltage Drop (Note 2) | V <sub>F</sub>  |     | 0.41<br>0.40<br>0.39<br>1.00<br>0.95<br>0.90 | V    | I <sub>F</sub> = 1.0mA<br>I <sub>F</sub> = 1.0mA<br>I <sub>F</sub> = 1.0mA<br>I <sub>F</sub> = 15mA<br>I <sub>F</sub> = 15mA<br>I <sub>F</sub> = 15mA |
| Reverse Current (Note 2)      | I <sub>R</sub>  |     | 200                                          | nA   | V <sub>R</sub> = 50V<br>V <sub>R</sub> = 40V<br>V <sub>R</sub> = 30V                                                                                  |
| Total Capacitance             | C <sub>T</sub>  |     | 2.0<br>2.1<br>2.2                            | pF   | V <sub>R</sub> = 0V, f = 1.0MHz                                                                                                                       |
| Reverse Recovery Time         | t <sub>rr</sub> |     | 1.0                                          | ns   | I <sub>F</sub> = I <sub>R</sub> = 5.0mA,<br>I <sub>rr</sub> = 0.1 x I <sub>R</sub> , R <sub>L</sub> = 100                                             |

Note: 1. 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>.  
 2. Short duration test pulse used to minimize self-heating effect.

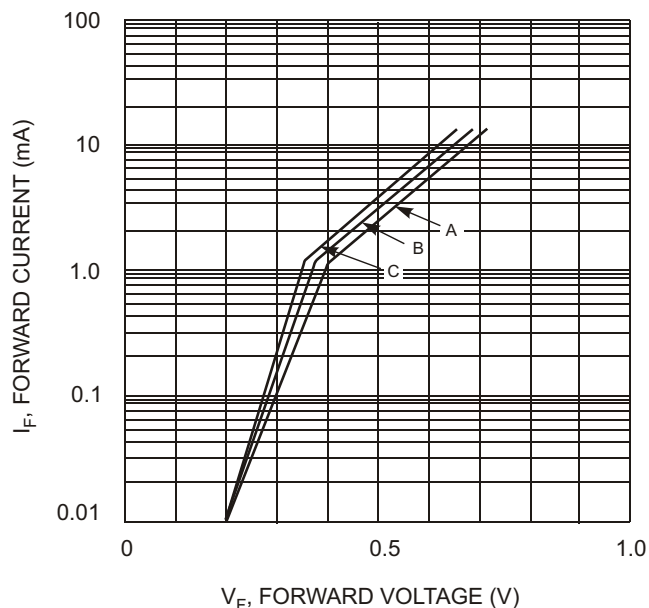


Fig. 1 Typical Forward Characteristic Variations for Primary Conduction

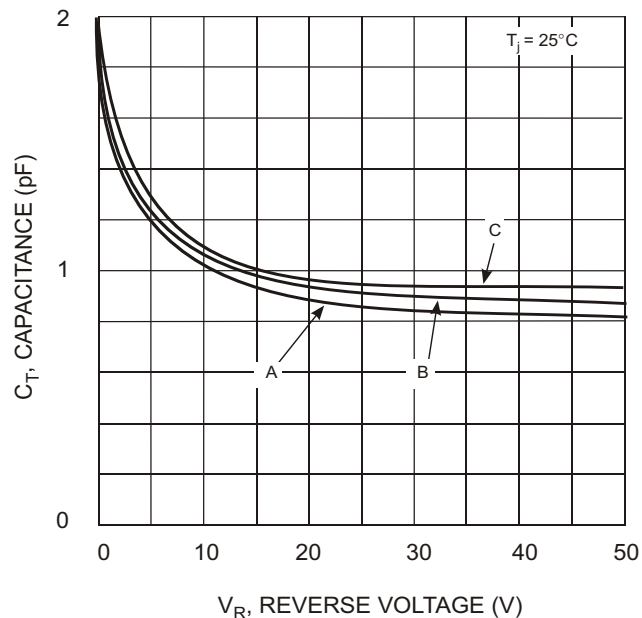


Fig. 2 Total Capacitance vs Reverse Voltage

### Ordering Information (Note 3)

| Device                                                                              | Packaging | Shipping                                                                                                                |
|-------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------|
| LLSD101A-7<br>LLSD101A-13<br>LLSD101B-7<br>LLSD101B-13<br>LLSD101C-7<br>LLSD101C-13 | MiniMELF  | 3000/Tape & Reel<br>10000/Tape & Reel<br>3000/Tape & Reel<br>10000/Tape & Reel<br>3000/Tape & Reel<br>10000/Tape & Reel |

Notes: 3. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.