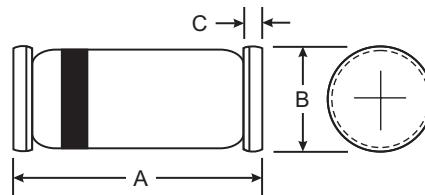


Features

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Fast Reverse Recovery Time
- Low Reverse Capacitance
- Lead Free Finish, RoHS Compliant (Note 3)

NOT RECOMMENDED FOR NEW DESIGNS,
PLEASE USE SD101AW - SD101CW



MiniMELF		
Dim	Min	Max
A	3.30	3.70
B	1.30	1.60
C	0.28	0.50

All Dimensions in mm

Mechanical Data

- Case: MiniMELF
- Case Material: Glass. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Finish - Sn97.5Ag2.5. Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Ordering Information: See Last Page
- Marking: Cathode Band Only
- Weight: 0.05 grams (approximate)

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

Characteristic	Symbol	LLSD101A	LLSD101B	LLSD101C	Unit
Peak Repetitive Reverse Voltage	V_{RRM}				
Working Peak Reverse Voltage	V_{RWM}	60	50	40	V
DC Blocking Voltage	V_R				
RMS Reverse Voltage	$V_{R(\text{RMS})}$	42	35	28	V
Forward Continuous Current (Note 1)	I_{FM}		15		mA
Non-Repetitive Peak Forward Surge Current @ $t \leq 1.0\text{s}$ @ $t = 10\mu\text{s}$	I_{FSM}		50	2.0	mA A
Power Dissipation (Note 1)	P_d		400		mW
Thermal Resistance, Junction to Ambient Air (Note 1)	R_{JJA}		375		°C/W
Operating Temperature Range	T_j		-55 to +125		°C
Storage Temperature Range	T_{STG}		-55 to +150		°C

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

Characteristic	Symbol	Min	Max	Unit	Test Condition
Forward Voltage Drop (Note 2)	V_F	—	0.41 0.40 0.39 1.00 0.95 0.90	V	$I_F = 1.0\text{mA}$ $I_F = 1.0\text{mA}$ $I_F = 1.0\text{mA}$ $I_F = 15\text{mA}$ $I_F = 15\text{mA}$ $I_F = 15\text{mA}$
Reverse Current (Note 2)	I_R	—	200	nA	$V_R = 50\text{V}$ $V_R = 40\text{V}$ $V_R = 30\text{V}$
Total Capacitance	C_T	—	2.0 2.1 2.2	pF	$V_R = 0\text{V}, f = 1.0\text{MHz}$
Reverse Recovery Time	t_{rr}	—	1.0	ns	$I_F = I_R = 5.0\text{mA}$, $I_{rr} = 0.1 \times I_R, R_L = 100\Omega$

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.
3. 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.

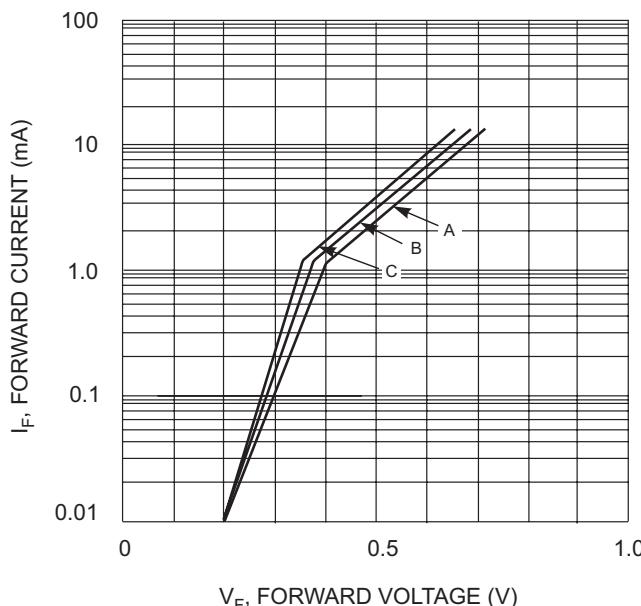


Fig. 1 Typical Forward Characteristic Variations for Primary Conduction

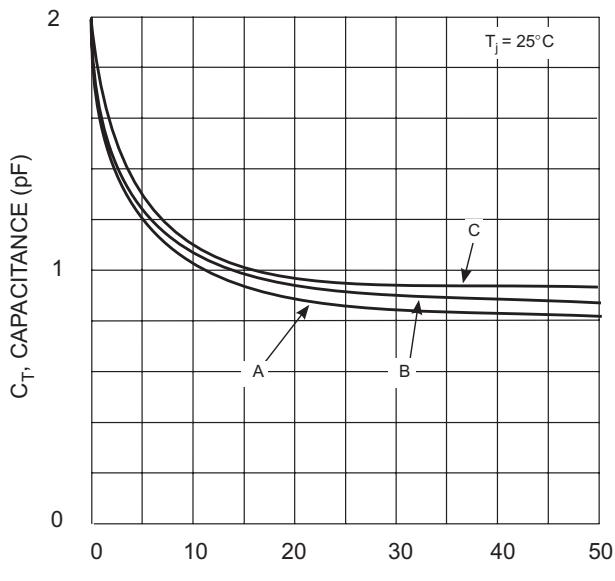


Fig. 2 Total Capacitance vs Reverse Voltage

Ordering Information (Note 4)

Device	Packaging	Shipping
LLSD101A-7	MiniMELF	2.5K/Tape & Reel, 7-inch
LLSD101A-13	MiniMELF	10K/Tape & Reel, 13-inch
LLSD101B-7	MiniMELF	2.5K/Tape & Reel, 7-inch
LLSD101B-13	MiniMELF	10K/Tape & Reel, 13-inch
LLSD101C-7	MiniMELF	2.5K/Tape & Reel, 7-inch
LLSD101C-13	MiniMELF	10K/Tape & Reel, 13-inch

Notes: 4. For packaging details, visit our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

IMPORTANT NOTICE

Diodes, Inc. and its subsidiaries reserve the right to make changes without further notice to any product herein to make corrections, modifications, enhancements, improvements, or other changes. Diodes, Inc. does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others. The user of products in such applications shall assume all risks of such use and will agree to hold Diodes Incorporated and all the companies whose products are represented on our website, harmless against all damages.

LIFE SUPPORT

The products located on our website at www.diodes.com are not recommended for use in life support systems where a failure or malfunction of the component may directly threaten life or cause injury without the expressed written approval of Diodes Incorporated.