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[Diodes Incorporated](#)
[LLSD101A-7](#)

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LLSD101A - 101C

SURFACE MOUNT SCHOTTKY BARRIER DIODE

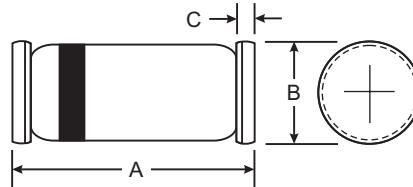
Features

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

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)

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

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		mA
Power Dissipation (Note 1)	P_d		400		mW
Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{\theta JA}$		375		$^\circ\text{C}/\text{W}$
Operating Temperature Range	T_j		-55 to +125		$^\circ\text{C}$
Storage Temperature Range	T_{STG}		-55 to +150		$^\circ\text{C}$

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*.

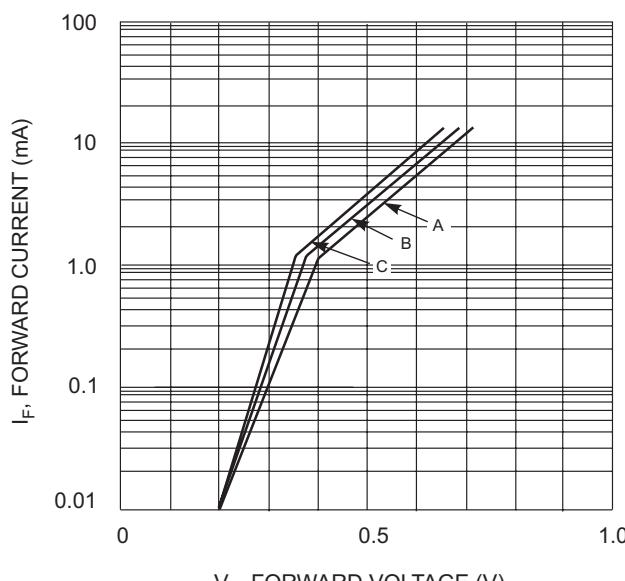


Fig. 1 Typical Forward Characteristic Variations for Primary Conduction

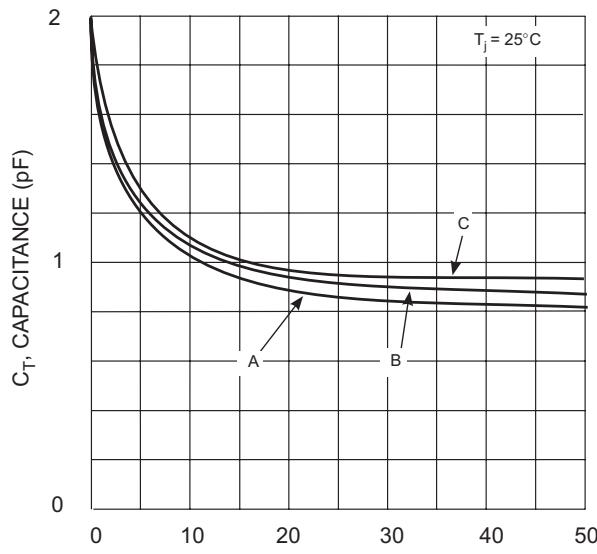


Fig. 2 Total Capacitance vs Reverse Voltage

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>.

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