THE DATASHEET OF

LLSD101C-7

LLSD101A - 101C

SURFACE MOUNT SCHOTTKY BARRIER DIODE

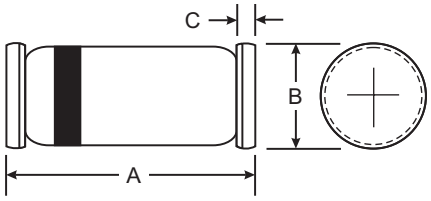
NOT RECOMMENDED FOR NEW DESIGNS, PLEASE USE SD101AW - SD101CW

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)



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°C unless otherwise specified

Characteristic	Symbol	LLSD101A	LLSD101B	LLSD101C	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	60	50	40	V
RMS Reverse Voltage	$V_{R(RMS)}$	42	35	28	V
Forward Continuous Current (Note 1)	I_{FM}	15			mA
Non-Repetitive Peak Forward Surge Current @ t ≤ 1.0s @ t = 10μs	I_{FSM}	50 2.0			mA A
Power Dissipation (Note 1)	P_d	400			mW
Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{\theta JA}$	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°C unless otherwise specified

Characteristic		Symbol	Min	Max	Unit	Test Condition
Forward Voltage Drop (Note 2)	LLSD101A LLSD101B LLSD101C LLSD101A LLSD101B LLSD101C	V_F	—	0.41 0.40 0.39 1.00 0.95 0.90	V	I_F = 1.0mA I_F = 1.0mA I_F = 1.0mA I_F = 15mA I_F = 15mA I_F = 15mA
Reverse Current (Note 2)	LLSD101A LLSD101B LLSD101C	I_R	—	200	nA	V_R = 50V V_R = 40V V_R = 30V
Total Capacitance	LLSD101A LLSD101B LLSD101C	C_T	—	2.0 2.1 2.2	pF	V_R = 0V, f = 1.0MHz
Reverse Recovery Time		t_{rr}	—	1.0	ns	I_F = I_R = 5.0mA, I_{rr} = 0.1 x I_R, R_L = 100Ω

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*.

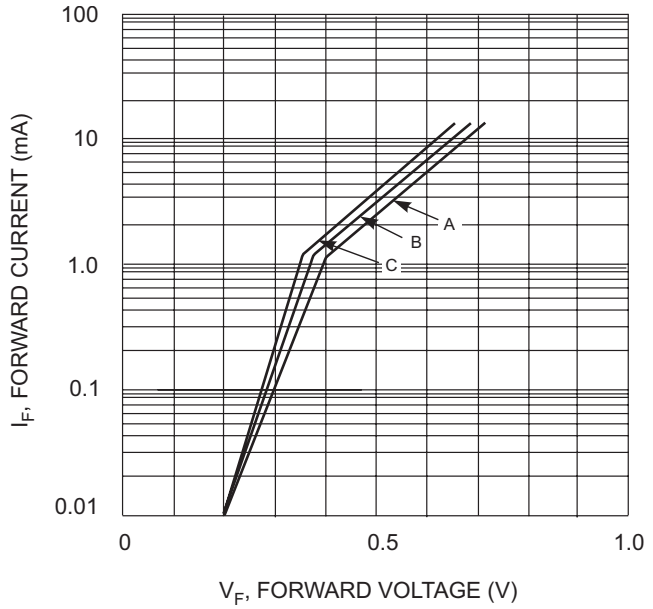


Fig. 1 Typical Forward Characteristic
Variations for Primary Conduction

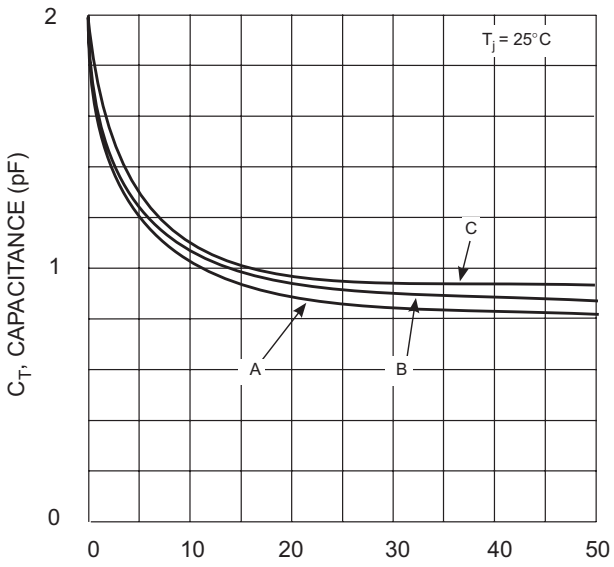


Fig. 2 Total Capacitance vs Reverse Voltage

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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- Excess Inventory Management