

# LLSD101A - 101C

## SURFACE MOUNT SCHOTTKY BARRIER DIODE

NOT RECOMMENDED FOR NEW DESIGNS, -

- PLEASE USE SD101AW SD101CW
- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Fast Reverse Recovery Time
- Low Reverse Capacitance
- Lead Free Finish, RoHS Compliant (Note 3)

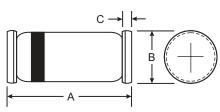
### **Mechanical Data**

#### Case: MiniMELF

Features

- 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** @ $T_A = 25^{\circ}C$ unless otherwise specified



MiniMELF			
Dim	Min	Max	
Α	3.30	3.70	
В	1.30	1.60	
С	0.28	0.50	
All Dimensions in mm			

Characteristic		Symbol	LLSD101A	LLSD101B	LLSD101C	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage		V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	60	50	40	V
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	@ $t \le 1.0s$ @ $t = 10\mu s$	I <sub>FSM</sub>	50 2.0			mA A
Power Dissipation (Note 1)		Pd		400		mW
Thermal Resistance, Junction to Ambient Air (Note 1)		$R_{\theta JA}$	375			°C/W
Operating Temperature Range		Tj	-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

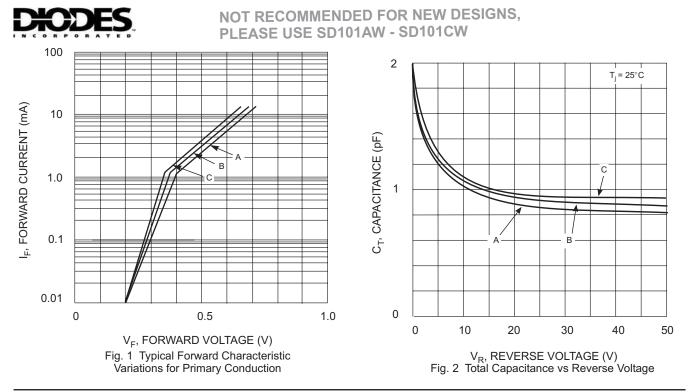
Characteristic		Symbol	Min	Max	Unit	Test Condition
Forward Voltage Drop (Note 2)	LLSD101A LLSD101B LLSD101C LLSD101A LLSD101B LLSD101C	VF		0.41 0.40 0.39 1.00 0.95 0.90	V	
Reverse Current (Note 2)	LLSD101A LLSD101B LLSD101C	I <sub>R</sub>	_	200	nA	V <sub>R</sub> = 50V V <sub>R</sub> = 40V V <sub>R</sub> = 30V
Total Capacitance	LLSD101A LLSD101B LLSD101C	CT		2.0 2.1 2.2	pF	V <sub>R</sub> = 0V, f = 1.0MHz
Reverse Recovery Time		t <sub>rr</sub>		1.0	ns	$\begin{split} I_F = I_R = 5.0 \text{mA}, \\ I_{\text{rr}} = 0.1 \text{ x } I_R, \ R_L = 100 \Omega \end{split}$

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*.



## Ordering Information (Note 4)

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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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