

LL101A - LL101C

FEATURES :

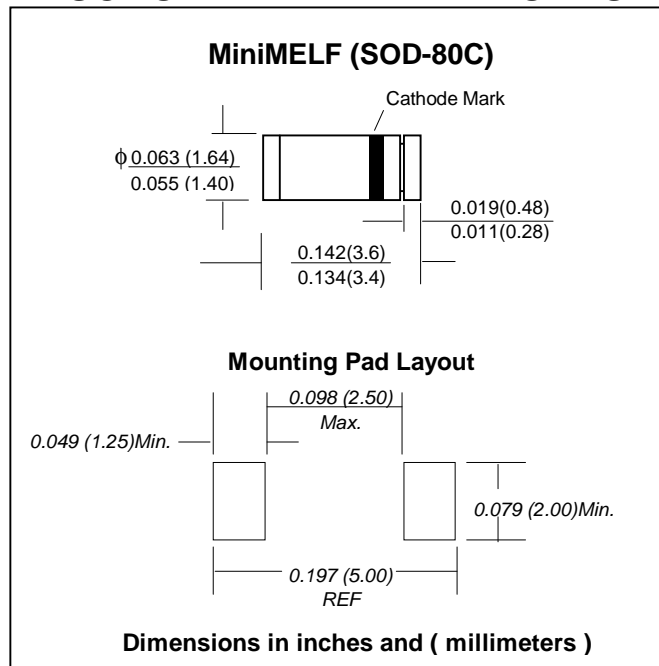
- For general purpose applications
- The LL101 series is a metal-on-silicon Schottky barrier device which is protected by a PN junction guard ring.
- The low forward voltage drop and fast switching make it ideal for protection of MOS devices, steering, biasing and coupling diodes for fast switching and low logic level applications.
- This diode is also available in the DO-35 case with type designation SD101A, B, C
- **Pb / RoHS Free**

MECHANICAL DATA :

Case: MiniMELF Glass Case (SOD-80C)

Weight: approx. 0.05g

SCHOTTKY BARRIER DIODES



Maximum Ratings and Thermal Characteristics (Rating at 25 °C ambient temperature unless otherwise specified.)

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	LL101A	60	V
	LL101B	50	
	LL101C	40	
Maximum Single Cycle Surge 10µs Square Wave	I_{FSM}	2	A
Power Dissipation (Infinite Heatsink)	PD	400 ⁽¹⁾	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	300 ⁽¹⁾	°C/W
Junction Temperature	T_J	125 ⁽¹⁾	°C
Storage temperature range	T_S	-55 to + 150 ⁽¹⁾	°C

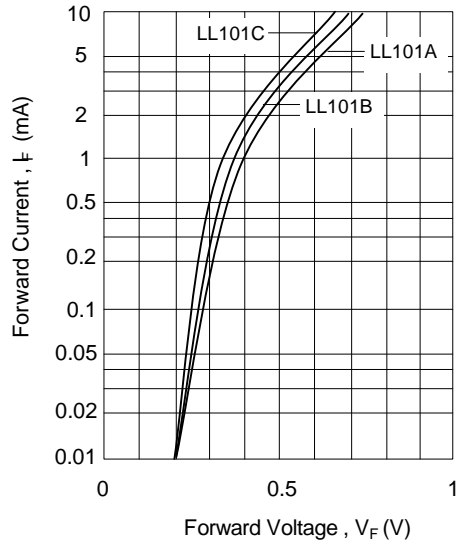
Note: (1) Valid provided that electrodes are kept at ambient temperature.

Electrical Characteristics ($T_J = 25^\circ\text{C}$ unless otherwise noted)

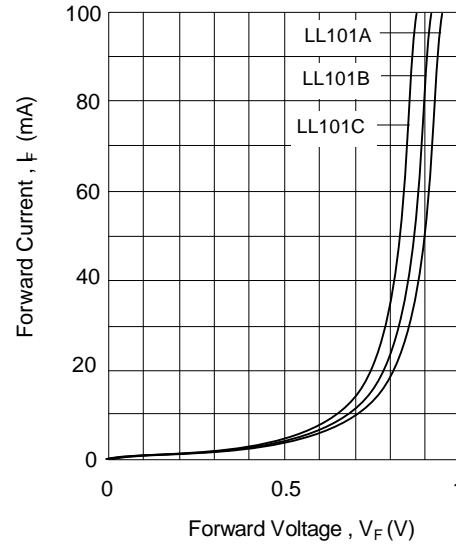
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit	
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R = 10 \mu\text{A}$	LL101A	60	-	-	V
			LL101B	50	-	-	
			LL101C	40	-	-	
Reverse Current	I_R	$V_R = 50 \text{ V}$	-	-	10	μA	
		$V_R = 40 \text{ V}$	-	-	10		
		$V_R = 30 \text{ V}$	-	-	10		
Forward Voltage Drop	V_F	$I_F = 1 \text{ mA}$	LL101A	-	-	0.41	V
			LL101B	-	-	0.40	
			LL101C	-	-	0.39	
		$I_F = 15 \text{ mA}$	LL101A	-	-	1.00	
			LL101B	-	-	0.95	
LL101C	-	-	0.90				
Reverse Recovery Time	T_{rr}	$I_F = I_R = 5 \text{ mA}$, recover to $0.1 I_R$	-	-	1.0	ns	

RATING AND CHARACTERISTIC CURVES (LL101A - LL101C)

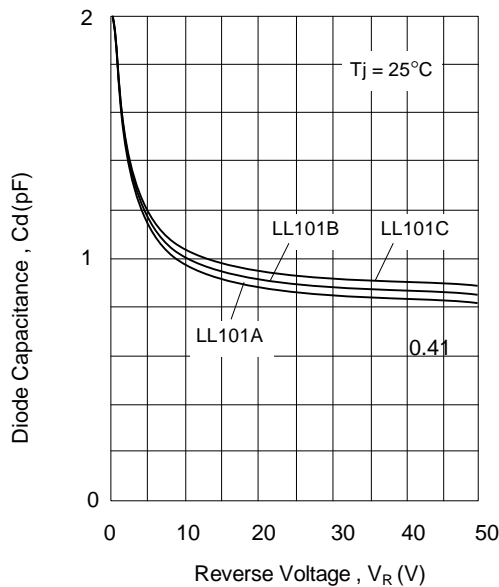
Typical variation of forward current and forward voltage for primary conduction through the schottky barrier



Typical forward conduction curve of combination Schottky barrier and PN junction guard ring



Typical capacitance curve as a function of reverse Voltage



Typical variation of reverse current at various temperatures

