

LL101A...LL101C

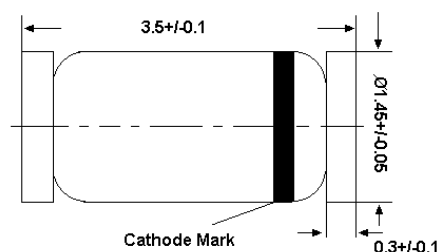
Silicon Schottky Barrier Diodes

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 DO-35 case with type designation SD101A, B, C.

LL-34



Glass case MiniMELF
Dimensions in mm

Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Peak Reverse Voltage	LL101A LL101B LL101C	V_{RRM} 60 50 40	V
Maximum Single Cycle Surge 10 μs Square Wave	I_{FSM}	2	A
Power Dissipation (Infinite Heatsink)	P_{tot}	400 ¹⁾	mW
Junction Temperature	T_j	200	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 200	$^\circ\text{C}$

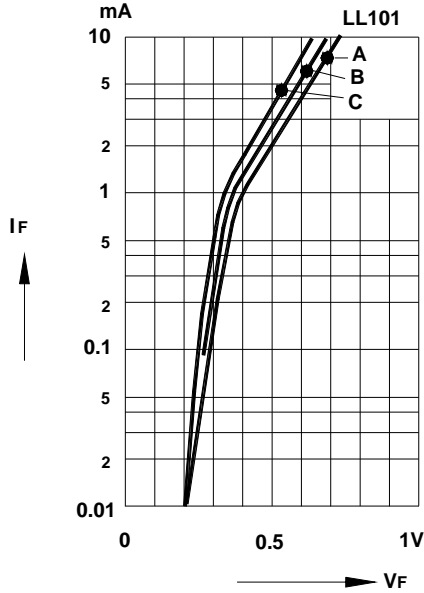
¹⁾ Valid provided that electrodes are kept at ambient temperature.

Characteristics at $T_a = 25\text{ }^\circ\text{C}$

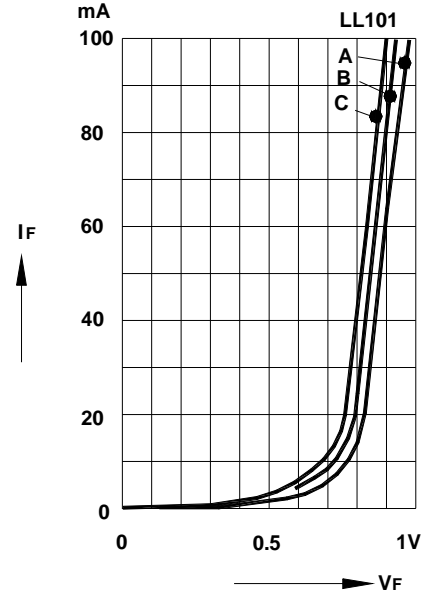
Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 10\text{ }\mu\text{A}$	LL101A LL101B LL101C	$V_{(BR)R}$ 60 50 40	- - -	V
Forward Voltage at $I_F = 1\text{ mA}$	LL101A LL101B LL101C	- - -	0.41 0.4 0.39	V
at $I_F = 15\text{ mA}$	LL101A LL101B LL101C	- - -	1 0.95 0.9	V
Reverse Current at $V_R = 50\text{ V}$ at $V_R = 40\text{ V}$ at $V_R = 30\text{ V}$	LL101A LL101B LL101C	I_R - - -	200 200 200	nA
Junction Capacitance at $V_R = 0\text{ V}$, $f = 1\text{ MHz}$	LL101A LL101B LL101C	C_{tot} - - -	2.0 2.1 2.2	pF
Reverse Recovery Time at $I_F = I_R = 5\text{ mA}$, recover to $0.1 I_R$	t_{rr}	-	1	ns

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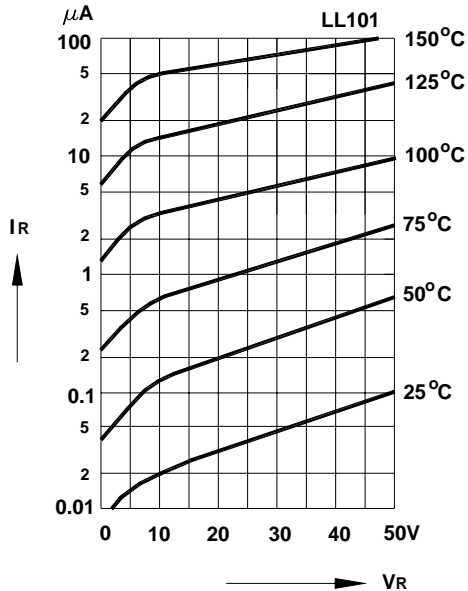
Typical variation of fwd. current vs. fwd. voltage for primary conduction through the Schottky barrier



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



Typical variation of reverse current at various temperatures



Typical capacitance curve as a function of reverse voltage

