

LL101A...LL101C

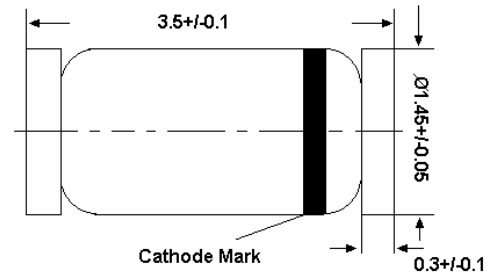
SILICON SCHOTTKY BARRIER DIODES

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

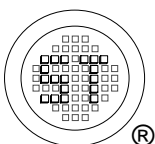
SD101A, B, C.



Glass case MiniMELF
Dimensions in mm

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

		Symbol	Value	Unit
Peak Reverse Voltage	LL101A	V_{RRM}	60	V
	LL101B	V_{RRM}	50	V
	LL101C	V_{RRM}	40	V
Power Dissipation (Infinite Heatsink)		P_{tot}	400 ¹⁾	mW
Max. Single Cycle Surge 10 μ s Squarewave		I_{FSM}	2	A
Junction Temperature		T_j	200	$^\circ\text{C}$
Storage Temperature Range		T_s	-55 to +200	$^\circ\text{C}$
¹⁾ Valid provided that electrodes are kept at ambient temperature.				



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ISO/TS 16949 : 2002
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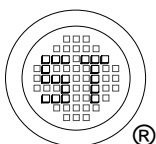
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LL101A...LL101C

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

		Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 10\mu\text{A}$	LL101A	$V_{(BR)R}$	60	-	-	V
	LL101B	$V_{(BR)R}$	50	-	-	V
	LL101C	$V_{(BR)R}$	40	-	-	V
Forward Voltage Drop at $I_F = 1\text{mA}$ at $I_F = 15\text{mA}$	LL101A	V_F	-	-	0.41	V
	LL101B	V_F	-	-	0.4	V
	LL101C	V_F	-	-	0.39	V
	LL101A	V_F	-	-	1	V
	LL101B	V_F	-	-	0.95	V
	LL101C	V_F	-	-	0.9	V
Leakage Current at $V_R = 50\text{V}$ at $V_R = 40\text{V}$ at $V_R = 30\text{V}$	LL101A	I_R	-	-	200	nA
	LL101B	I_R	-	-	200	nA
	LL101C	I_R	-	-	200	nA
Junction Capacitance at $V_R = 0\text{V}$, $f = 1\text{MHz}$	LL101A	C_{tot}	-	-	2.0	pF
	LL101B	C_{tot}	-	-	2.1	pF
	LL101C	C_{tot}	-	-	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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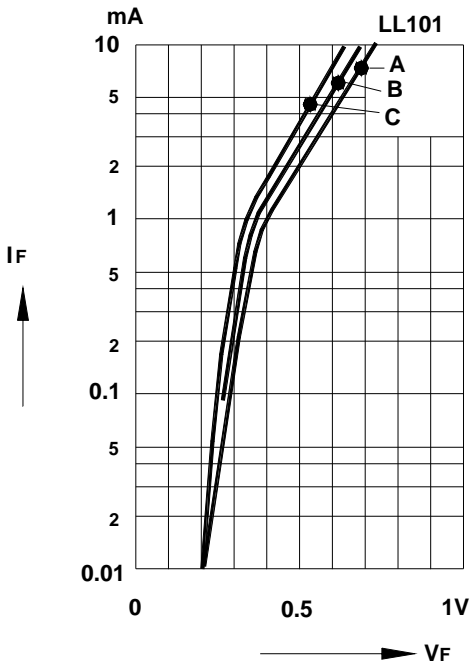


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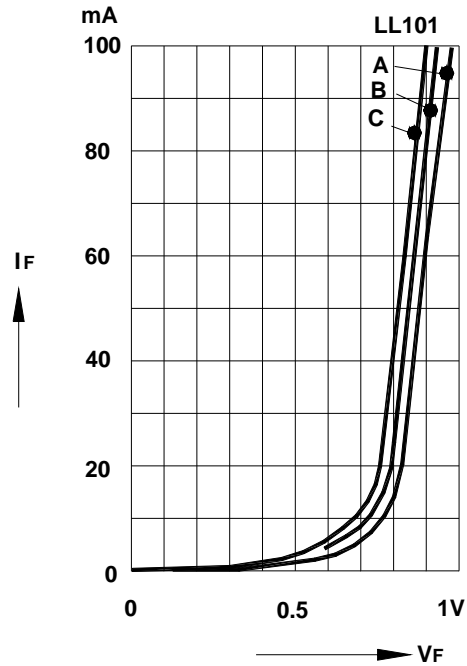
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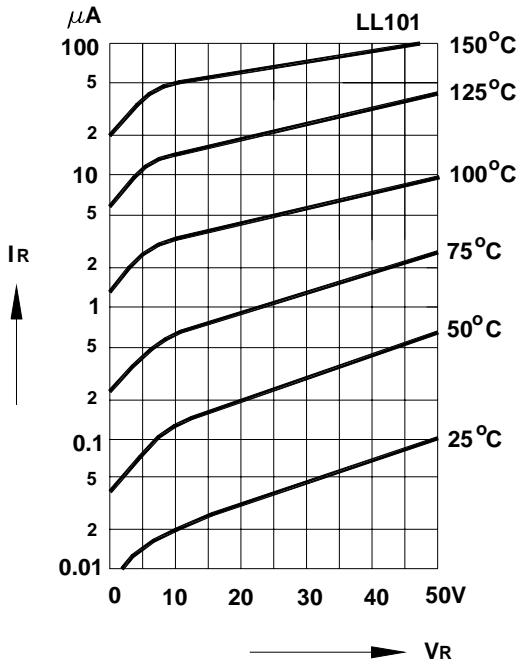
Typical variation of fwd. current vs. fwd. voltage for primary conduction through the Schottky barrier



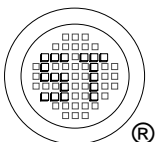
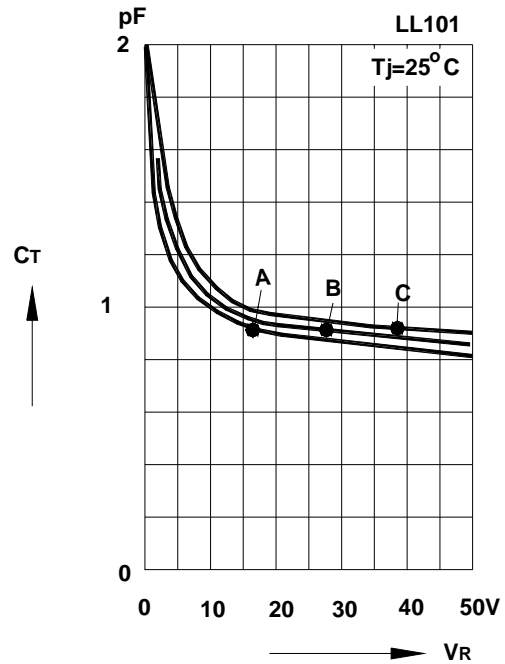
Typical forward conduction curve of combination Schottky barrier and PN junction guard ring



Typical variation of reverse current at various temperatures



Typical capacitance curve as a function of reverse voltage



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