

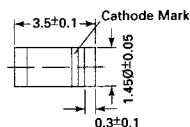
# LL101A ... LL101C

## Silicon Schottky Barrier Diode 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.

These diodes are delivered taped.  
Details see "Taping".



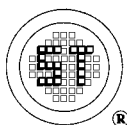
Glass case MiniMELF

Weight approx. 0.05g  
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 <sup>1)</sup>	mW
Max. Single Cycle Surge 10 $\mu$ s Squarewave	$I_{FSM}$	2	A
Junction Temperature	$T_j$	200	$^\circ\text{C}$
Storage Temperature Range	$T_s$	-55 to + 200	$^\circ\text{C}$

<sup>1)</sup> Valid provided that electrodes are kept at ambient temperature.



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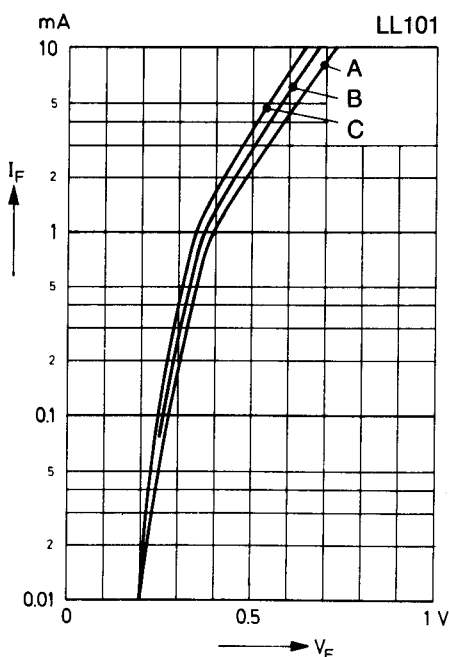


# LL101A ... LL101C

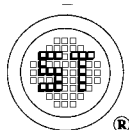
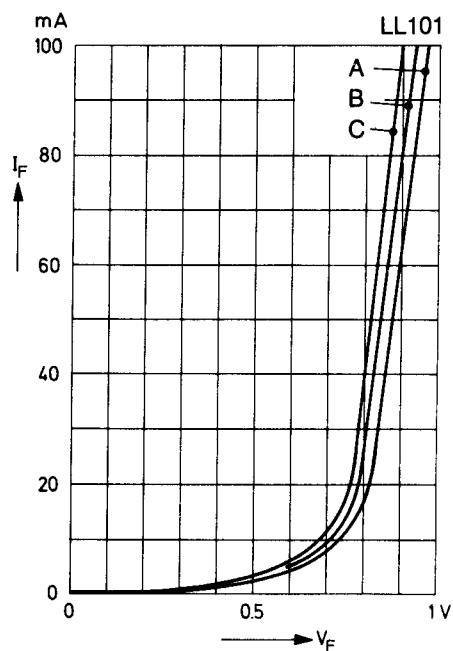
Characteristics at  $T_{amb} = 25^\circ\text{C}$

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

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

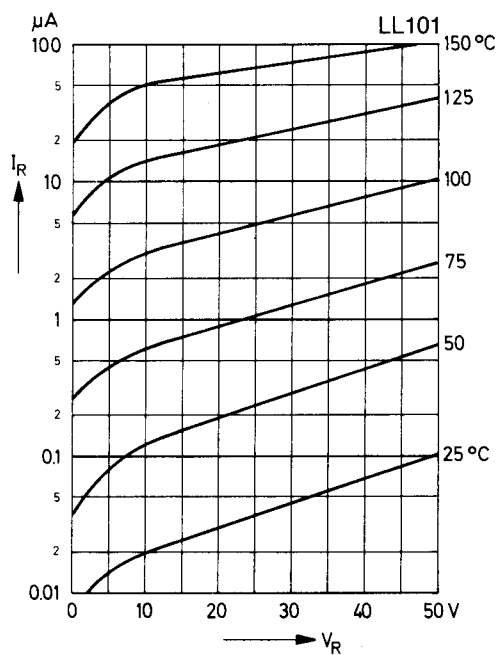


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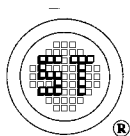
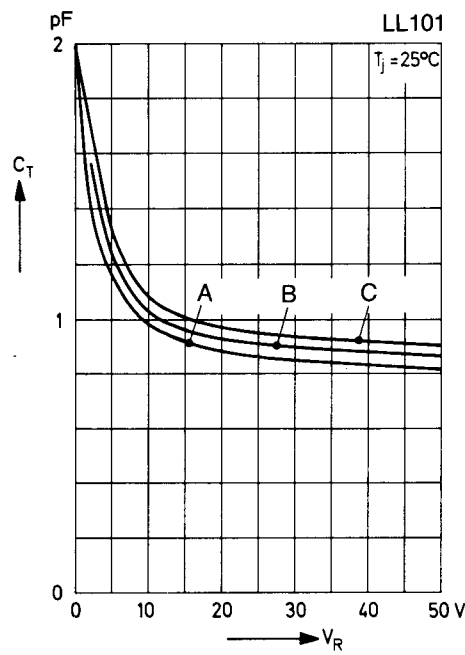
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Typical variation of reverse current at various temperatures



Typical capacitance curve as a function of reverse voltage



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