LL101A...LL101C

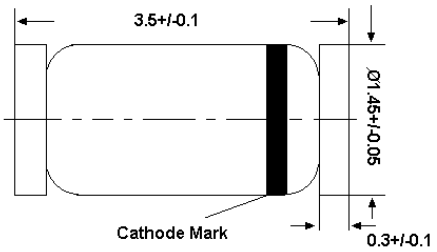
Silicon Schottky Barrier Diodes

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

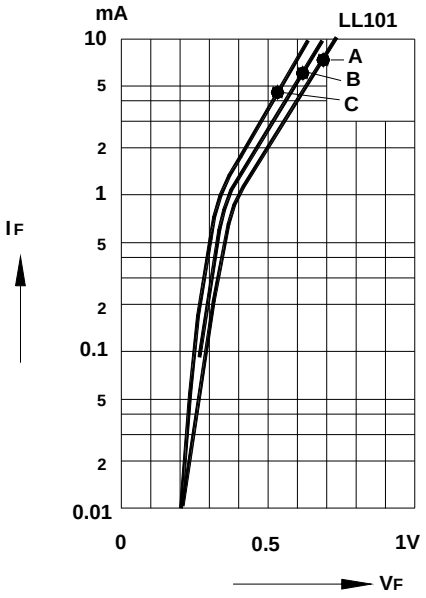
Absolute Maximum Ratings (T_a = 25 °C)

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	°C
Storage Temperature Range		T_{stg}	- 55 to + 200	°C
[1] Valid provided that electrodes are kept at ambient temperature.				

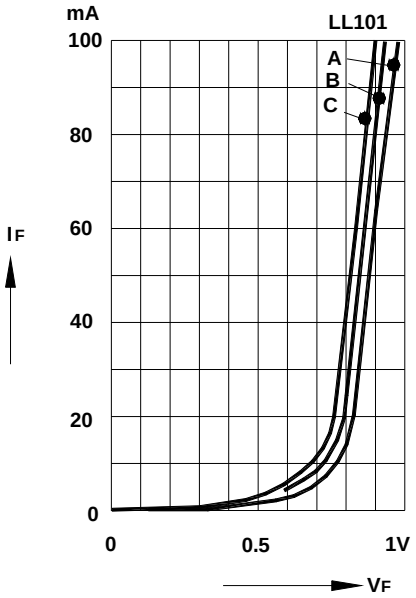
Characteristics at T_a = 25 °C

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

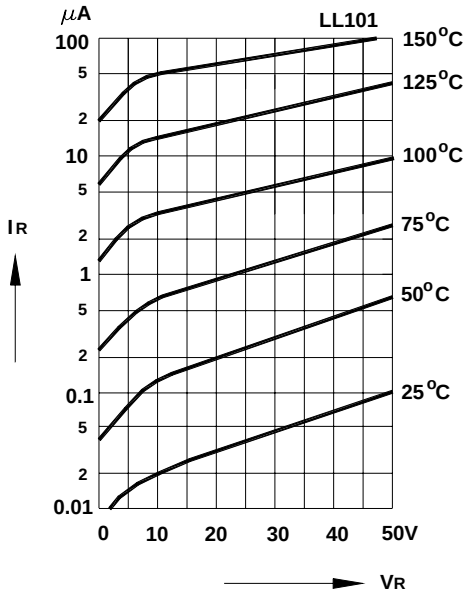
Typical variation of fwd. current vs. fwd. voltage for primary conduction through the Schottky barrier



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



Typical variation of reverse current at various temperatures



Typical capacitance curve as a function of reverse voltage