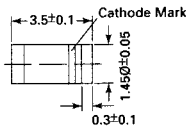
LL101A ... LL101C

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 °C)

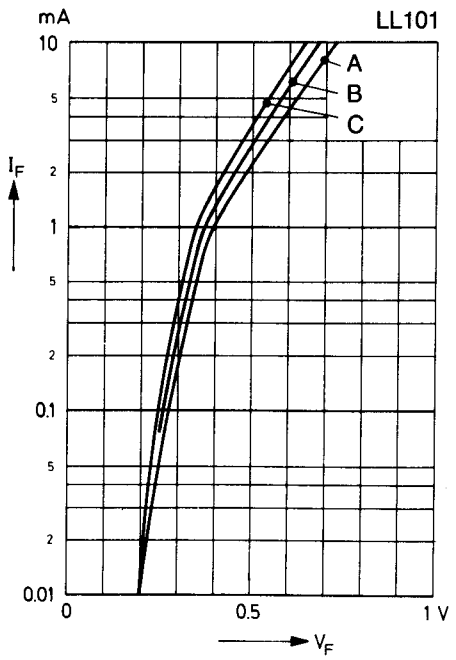
		Symbol	Value	Unit
Peak Reverse Voltage	**LL101A**	V_{RRM}	60	V
	LL101B	V_{RRM}	50	V
	LL101C	V_{RRM}	40	V
Power Dissipation (Infinite Heatsink)		P_{tot}	400 [1]	mW
Max. Single Cycle Surge 10 µs Squarewave		I_{FSM}	2	A
Junction Temperature		T_j	200	°C
Storage Temperature Range		T_S	-55 to + 200	°C

[1] Valid provided that electrodes are kept at ambient temperature.

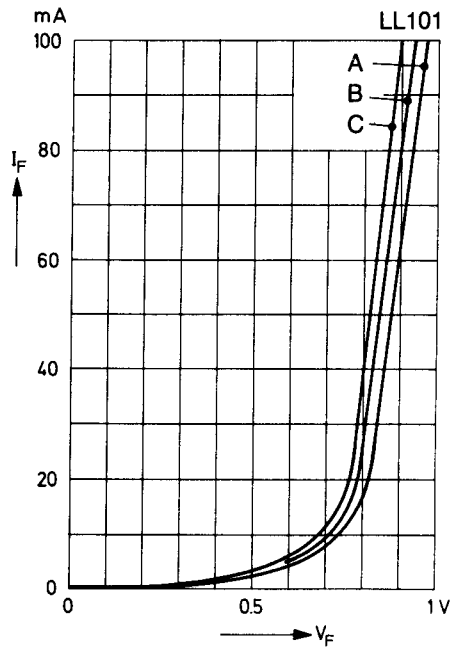
Characteristics at T_{amb} =25 °C

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

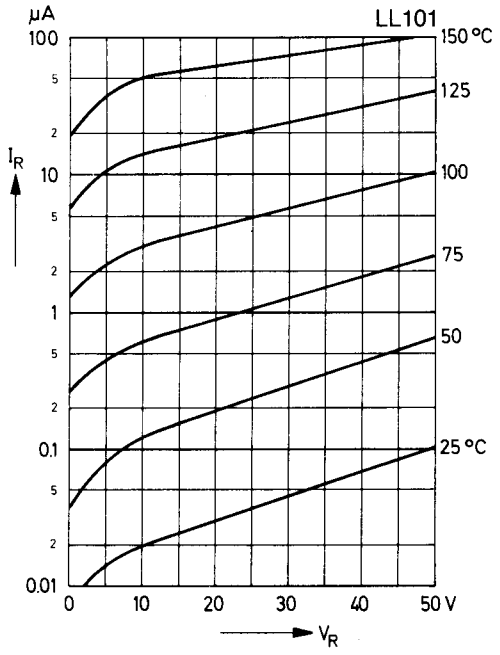
Typical variation of fwd. current vs. fwd. voltage for primary conduction through the Schottky barrier



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