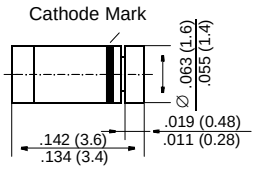
LL101A THRU LL101C

Schottky Diodes

MiniMELF



Dimensions in inches and (millimeters)

FEATURES

- 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 the DO-35 case with type designation SD101A, B, C, and in the SOD-123 case with type designation SD101AW, SD101BW, SD101CW.

MECHANICAL DATA

Case: MiniMELF Glass Case (SOD-80)
Weight: approx. 0.05 g

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified

		Symbol	Value	Unit
Peak Inverse 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 Square Wave		I_{FSM}	2	A
Junction Temperature		T_j	125	°C
Storage Temperature Range		T_S	–55 to +150	°C

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

GENERAL SEMICONDUCTOR®

LL101A THRU LL101C

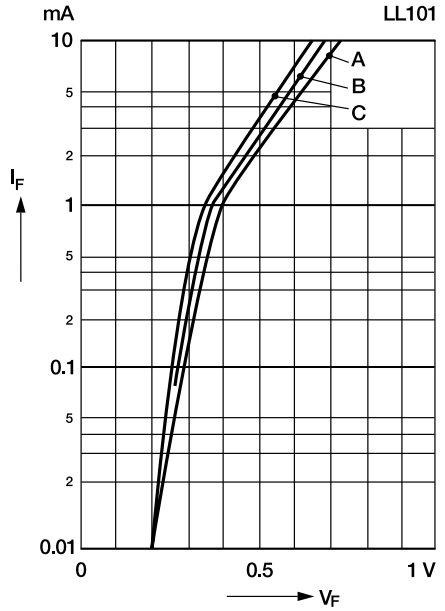
ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified

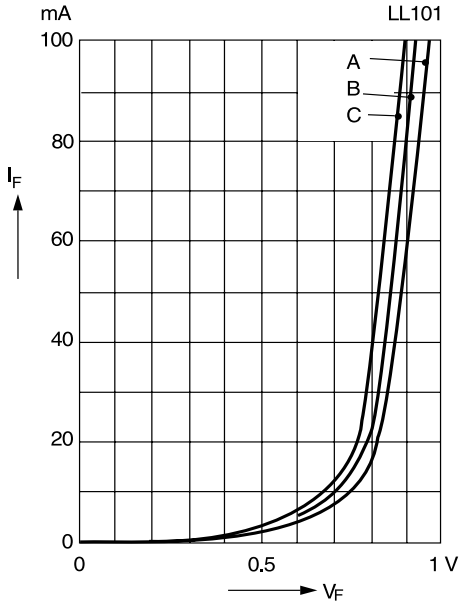
		Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage						
at I_R = 10 µA	**LL101A**	$V_{(BR)R}$	60	–	–	V
	LL101B	$V_{(BR)R}$	50	–	–	V
	LL101C	$V_{(BR)R}$	40	–	–	V
Leakage Current						
at V_R = 50 V	**LL101A**	I_R	–	–	200	nA
at V_R = 40 V	**LL101B**	I_R	–	–	200	nA
at V_R = 30 V	**LL101C**	I_R	–	–	200	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 at I_F = I_R = 5 mA, recover to 0.1 I_R		t_{rr}	–	–	1	ns

RATINGS AND CHARACTERISTIC CURVES LL101A THRU LL101C

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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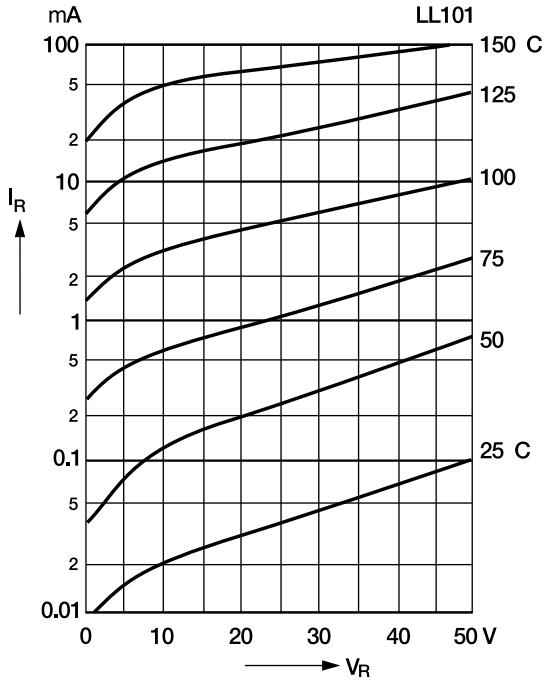
Typical variation of reverse current at various temperatures



Typical capacitance curve as a function of reverse voltage