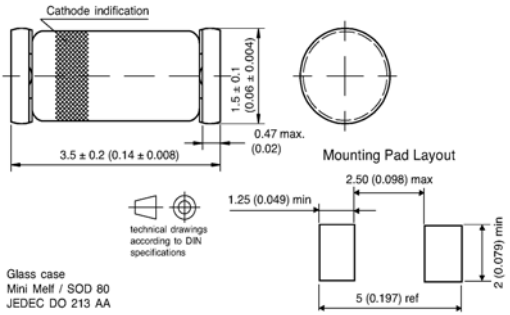
LL101A thru LL101C

Small-Signal Diode
Schottky Diodes

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.
- These diodes are also available in the DO-35 case with type designations SD101A thru SD101C.



Mechanical Data

- Case: MiniMELF Glass Case (SOD-80)
- Weight: approx. 0.05g
- Cathode Band Color: Green

Maximum Ratings and Thermal Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified.)

Parameter		Symbol	Value	Unit
Peak inverse voltage	LL101A LL101B LL101C	V_{RRM}	60 50 40	Volts
Power dissipation (Infinite heatsink)		P_{tot}	400 (1)	mW
Maximum single cycle surge 10 us square wave		I_{FSM}	2.0	Amps
Junction temperature		T_J	125	°C
Storage temperature range		T_S	-55 to +150	°C

Notes: 1. Valid provided that electrodes are kept at ambient temperature.

Electrical Characteristics

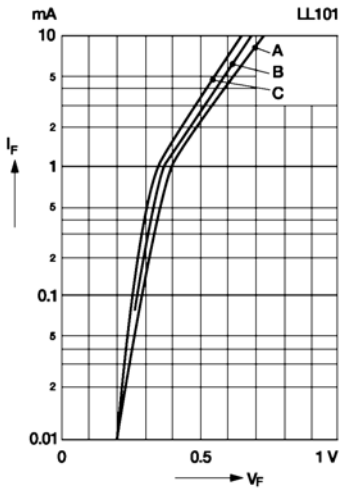
(T_J=25°C unless otherwise noted.)

Parameter		Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse breakdown voltage	LL101A LL101B LL101C	$V_{(BR)R}$	I_R=10uA	60 50 40	- - -	- - -	Volts
Leakage current	LL101A LL101B LL101C	I_R	V_R=50V	- - -	- - -	200 200 200	nA
Forward voltage drop	LL101A LL101B LL101C	V_F	I_F=1mA	- - -	- - -	0.41 0.4 0.39	Volt
	LL101A LL101B LL101C		I_F=15mA	- - -	- - -	1.0 0.95 0.9	Volt
Junction capacitance	LL101A LL101B LL101C	C_{tot}	V_R=0V, f=1MHz	- - -	- - -	2.0 2.1 2.2	pF
Reverse recovery time		t_{rr}	I_F=I_R=5mA, recover to 0.1I_R	-	-	1	ns

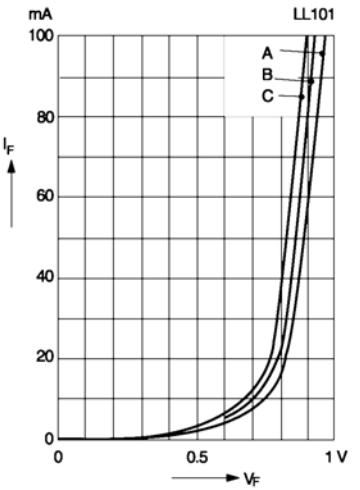
RATINGS AND CHARACTERISTIC CURVES

(T_A = 25°C unless otherwise noted)

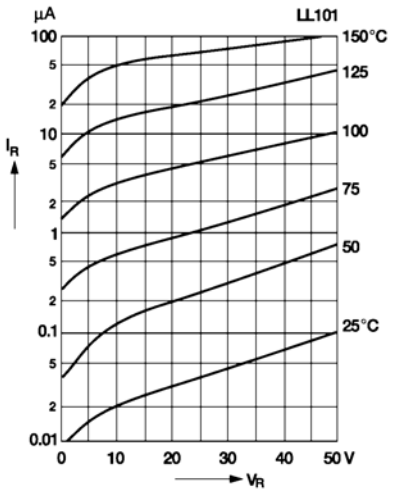
Typical variation of fwd. current vs. fwd. voltage for primary conduction through the Schottky barrier



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