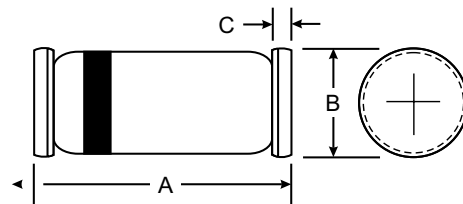


Features

- 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.
- Integrated protection ring against static discharge
- Low capacitance
- Low leakage current
- This diode is also available in the DO35 case with type designation SD101A, B, C and in the SOD123 case with type designation SD101AW, SD101BW, SD101CW.
- Lead (Pb)-free component
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC



SOD-80		
Dim	Min	Max
A	3.30	3.70
B	1.30	1.60
C	0.28	0.50
All Dimensions in mm		

Mechanical Data

- **Case:** MiniMELF Glass case (SOD80)
- **Weight:** approx. 31 mg
- **Cathode Band Color:**Black



Maximum Ratings and Electrical Characteristics @ T_A = 25°C unless otherwise specified

Parameter	Test condition	Part	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
Forward continuous current			I _F	30	mA
Maximum single cycle surge 10 μs square wave			I _{FSM}	2	A

¹⁾ Valid provided that electrodes are kept at ambient temperature

Parameter	Test condition	Part	Symbol	Min	Typ.	Max	Unit
Reverse Breakdown Voltage	$I_R = 10 \mu\text{A}$	LL101A	$V_{(BR)R}$	60			V
		LL101B	$V_{(BR)R}$	50			V
		LL101C	$V_{(BR)R}$	40			V
Leakage current	$V_R = 50 \text{ V}$	LL101A	I_R			200	nA
	$V_R = 50 \text{ V}$	LL101B	I_R			200	nA
	$V_R = 50 \text{ V}$	LL101C	I_R			200	nA
Forward voltage drop	$I_F = 1 \text{ mA}$	LL101A	V_F			410	mV
	$I_F = 1 \text{ mA}$	LL101B	V_F			400	mV
	$I_F = 1 \text{ mA}$	LL101C	V_F			390	mV
	$I_F = 15 \text{ mA}$	LL101A	V_F			1000	mV
	$I_F = 15 \text{ mA}$	LL101B	V_F			950	mV
	$I_F = 15 \text{ mA}$	LL101C	V_F			900	mV
Diode capacitance	$V_R = 0 \text{ V}, f = 1 \text{ MHz}$	LL101A	C_D			2.0	pF
	$V_R = 0 \text{ V}, f = 1 \text{ MHz}$	LL101B	C_D			2.1	pF
	$V_R = 0 \text{ V}, f = 1 \text{ MHz}$	LL101C	C_D			2.2	pF
Reverse recovery time	$I_F = I_R = 5 \text{ mA}$, recover to $0.1 I_R$		t_{rr}			1	ns

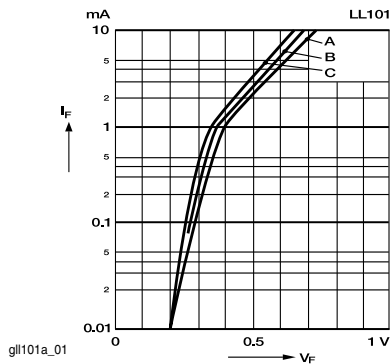


Figure 1. Typ. I_F vs. V_F for primary conduction through the Schottky barrier

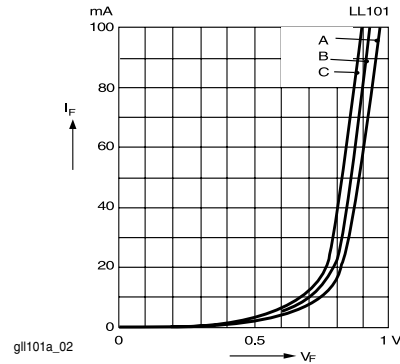


Figure 2. Typ. I_F of combination Schottky barrier and PN junction guard ring

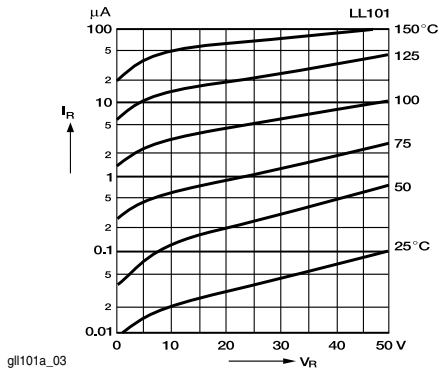


Figure 3. Typical Variation of Reverse Current at Various Temperatures

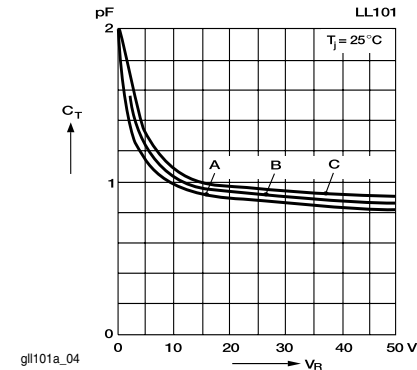


Figure 4. Typical Capacitance Curve as a Function of Reverse Voltage

