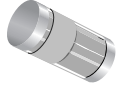
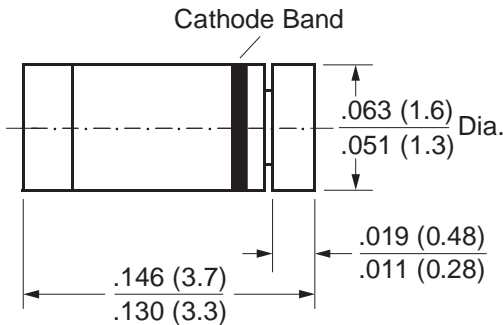


## Schottky Diodes



### MiniMELF (SOD-80C)



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. 0.05g

**Cathode Band Color:** Green

**Packaging Codes/Options:**

D1/10K per 13" reel (8mm tape), 20K/box

D2/2.5K per 7" reel (8mm tape), 20K/box

### Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Peak Inverse Voltage	V <sub>RRM</sub>	60 50 40	V
Power Dissipation (Infinite Heatsink)	P <sub>tot</sub>	400 <sup>(1)</sup>	mW
Maximum Single Cycle Surge 10μs Square Wave	I <sub>FSM</sub>	2	A
Thermal Resistance Junction to Ambient	R <sub>θJA</sub>	300 <sup>(1)</sup>	°CW
Junction Temperature	T <sub>j</sub>	125	°C
Storage Temperature Range	T <sub>s</sub>	-55 to +150	°C

**Note:**

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

# LL101A thru LL101C

Vishay Semiconductors  
formerly General Semiconductor



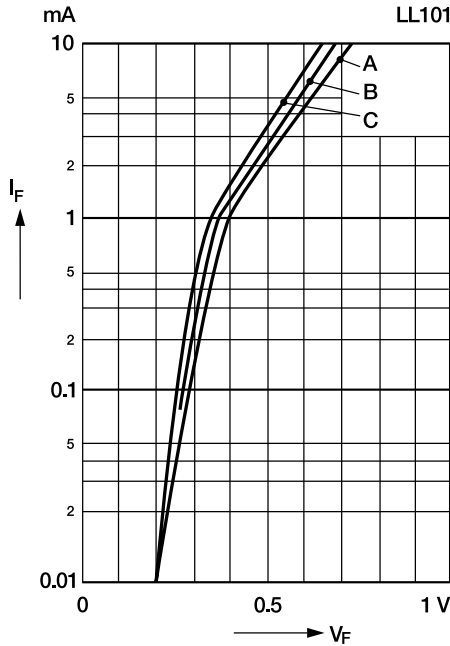
## Electrical Characteristics (T<sub>J</sub> = 25°C unless otherwise noted)

Parameter		Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Breakdown Voltage	LL101A	V <sub>(BR)R</sub>	I <sub>R</sub> = 10μA	60	—	—	V
	LL101B			50	—	—	
	LL101C			40	—	—	
Leakage Current	LL101A	I <sub>R</sub>	V <sub>R</sub> = 50V	—	—	200	nA
	LL101B		V <sub>R</sub> = 50V	—	—	200	
	LL101C		V <sub>R</sub> = 50V	—	—	200	
Forward Voltage Drop	LL101A	V <sub>F</sub>	I <sub>F</sub> = 1mA	—	—	0.41	V
	LL101B			—	—	0.4	
	LL101C			—	—	0.39	
	LL101A	V <sub>F</sub>	I <sub>F</sub> = 15mA	—	—	1	V
LL101B	—			—	0.95		
LL101C	—			—	0.9		
Junction Capacitance	LL101A	C <sub>tot</sub>	V <sub>R</sub> = 0V, f = 1MHz	—	—	2.0	pF
	LL101B			—	—	2.1	
	LL101C			—	—	2.2	
Reverse Recovery Time		t <sub>rr</sub>	I <sub>F</sub> = I <sub>R</sub> = 5mA, recover to 0.1I <sub>R</sub>	—	—	1	ns

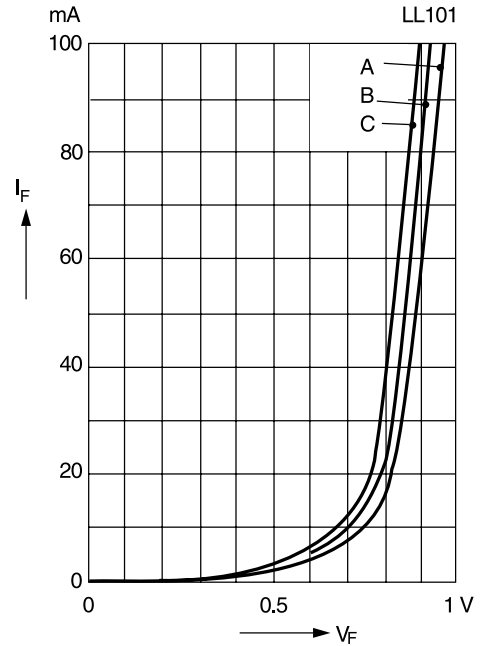


**Ratings and Characteristic Curves** ( $T_A = 25^\circ\text{C}$  unless otherwise noted)

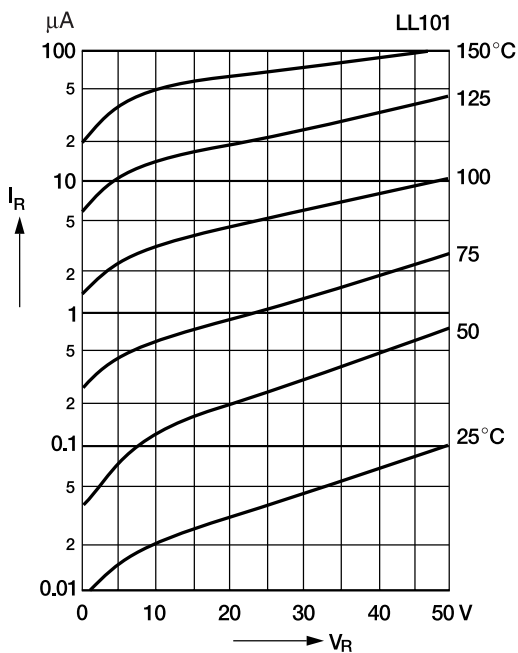
Typical variation of fwd. current vs. fwd. voltage for primary conduction through the Schottky barrier



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

