



SEMICONDUCTOR

# LL101A THUR LL101C

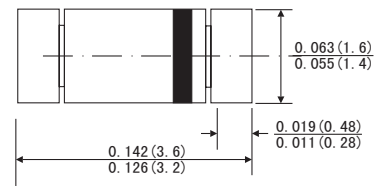
## SMALL SIGNAL SCHOTTKY DIODES

### FEATURES

- For general purpose applications
- The LL101 series is a Metal-on-silicon junction 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 the type designation SD101A to SD101C.
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- Component in accordance to RoHS 2011/65/EU



### MiniMELF



### MECHANICAL DATA

- Case: MiniMELF glass case(SOD-80 )
- Polarity: Color band denotes cathode end
- Weight: Approx. 0.05 gram

Dimensions in inches and (millimeters)

### ABSOLUTE RATINGS(LIMITING VALUES)

	Symbols	Value	Units	
Peak Reverse Voltage	LL101A LL101B LL101C	V <sub>RRM</sub> V <sub>RRM</sub> V <sub>RRM</sub>	60 50 40	V
Power Dissipation (infinite Heat Sink)	P <sub>tot</sub>	400 <sup>1)</sup>	mW	
Maximum Single cycle surge 10ms square wave	I <sub>FSM</sub>	2.0	A	
Junction temperature	T <sub>J</sub>	125	°C	
Storage Temperature Range	T <sub>STG</sub>	-55 to +150	°C	

1) Valid provided that electrodes are kept at ambient temperature

### ELECTRICAL CHARACTERISTICS

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

	Symbols	Min.	Typ.	Max.	Units
Reverse breakover voltage at I <sub>R</sub> =10mA	LL101A LL101B LL101C	V <sub>RRM</sub> V <sub>RRM</sub> V <sub>RRM</sub>	60 50 40		V
Leakage current at V <sub>R</sub> =50V	LL101A	I <sub>R</sub>		200	nA
V <sub>R</sub> =40V	LL101B	I <sub>R</sub>		200	nA
V <sub>R</sub> =30V	LL101C	I <sub>R</sub>		200	nA
Forward voltage drop at I <sub>F</sub> =1mA	LL101A LL101B LL101C	V <sub>F</sub> V <sub>F</sub> V <sub>F</sub>		0.41 0.4 0.39	V
I <sub>F</sub> =15mA	LL101A LL101B LL101C	V <sub>F</sub> V <sub>F</sub> V <sub>F</sub>		1 0.95 0.9	V
Junction Capacitance at V <sub>R</sub> =0V, f=1MHz	LL101A LL101B LL101C	C <sub>J</sub> C <sub>J</sub> C <sub>J</sub>		2.0 2.1 2.2	pF
Reverse Recovery time at I <sub>F</sub> =I <sub>R</sub> =5mA, recover to 0.1 I <sub>R</sub>		t <sub>rr</sub>		1	ns

# RATINGS AND CHARACTERISTIC CURVES LL101A THRU LL101C

Figure 1. Typical variation of forward current vs. fwd. Voltage for primary conduction through the schottky barrier

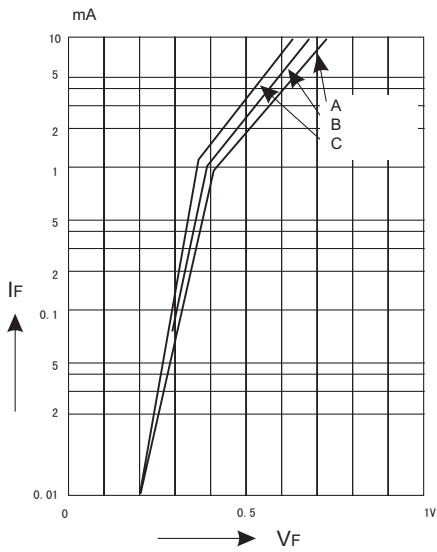


Figure 3. Typical variation of reverse current at versus temperature

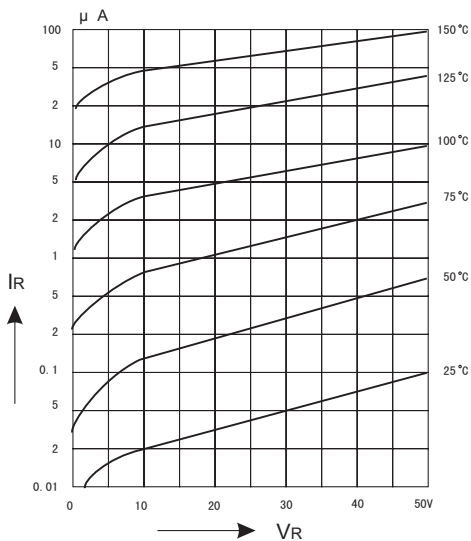


Figure 2. Typical forward conduction curve of combination Schottky barrier and PN junction guard ring

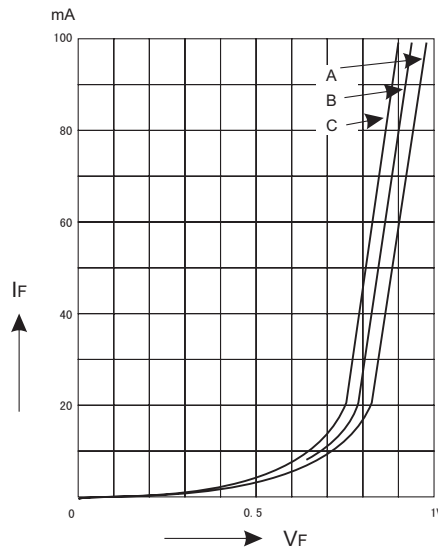


Figure 4. Typical capacitance curve as a function of reverse voltage

