

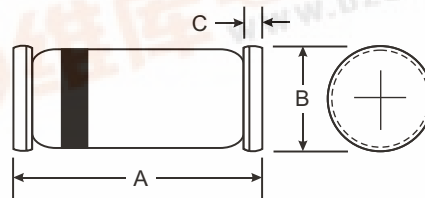


# LLSD103A - 103C

## SURFACE MOUNT SCHOTTKY BARRIER DIODE

### Features

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Fast Reverse Recovery Time
- Low Reverse Capacitance



### Mechanical Data

- Case: MiniMELF, Glass
- Terminals: Solderable per MIL-STD-202, Method 208
- Marking: Cathode Band Only
- Polarity: Cathode Band
- Weight: 0.05 grams (approx.)

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

### Maximum Ratings @ T<sub>A</sub> = 25 °C unless otherwise specified

Characteristic	Symbol	LLSD103A	LLSD103B	LLSD103C	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>				
Working Peak Reverse Voltage	V <sub>RWM</sub>	40	30	20	V
DC Blocking Voltage	V <sub>R</sub>				
RMS Reverse Voltage	V <sub>R(RMS)</sub>	28	21	14	V
Forward Continuous Current (Note 1)	I <sub>FM</sub>		350		mA
Repetitive Peak Forward Current @ t = 1.0s	I <sub>FRM</sub>		1.0		A
Non-Repetitive Peak Forward Surge Current @ t = 1.0s @ t = 10ms	I <sub>FSM</sub>		1.5 7.5		A
Power Dissipation (Note 1)	P <sub>d</sub>		400		mW
Thermal Resistance, Junction to Ambient Air (Note 1)	R <sub>JA</sub>		250		C/W
Operating Temperature Range	T <sub>j</sub>		-55 to +125		C
Storage Temperature Range	T <sub>STG</sub>		-55 to +150		C

### Electrical Characteristics @ T<sub>A</sub> = 25 °C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage Drop (Note 2)	V <sub>F</sub>			0.37 0.60	V	I <sub>F</sub> = 20mA I <sub>F</sub> = 200mA
Peak Reverse Current (Note 2)	I <sub>R</sub>			5.0	A	V <sub>R</sub> = 30V V <sub>R</sub> = 20V V <sub>R</sub> = 10V
Total Capacitance	C <sub>T</sub>		50		pF	V <sub>R</sub> = 0V, f = 1.0MHz
Reverse Recovery Time	t <sub>rr</sub>			10	ns	I <sub>F</sub> = I <sub>R</sub> = 50mA to 200mA, I <sub>rr</sub> = 0.1 x I <sub>R</sub> , R <sub>L</sub> = 100

- Note:
- Part mounted on FR-4 board with recommended pad layout, which can be found on our website at <http://www.diodes.com/datasheets/ap02001.pdf>.
  - Short duration test pulse used to minimize self-heating effect.



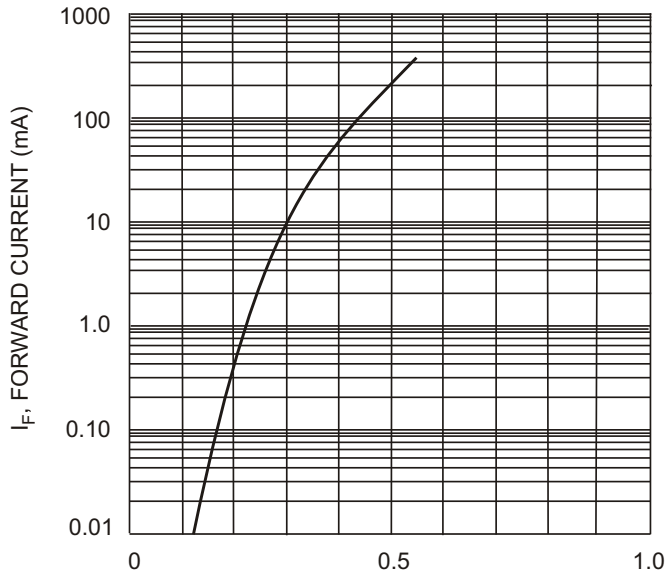


Fig. 1 Typical Forward Characteristics

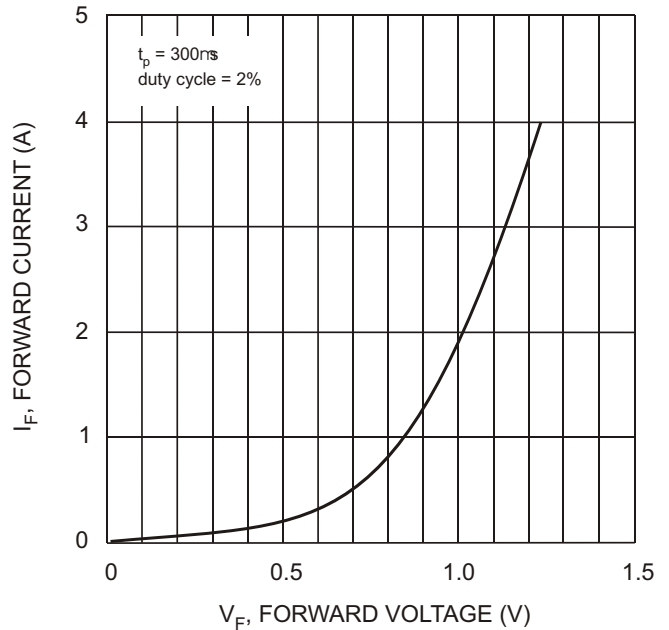


Fig. 2 Typical High Current Fwd Characteristics

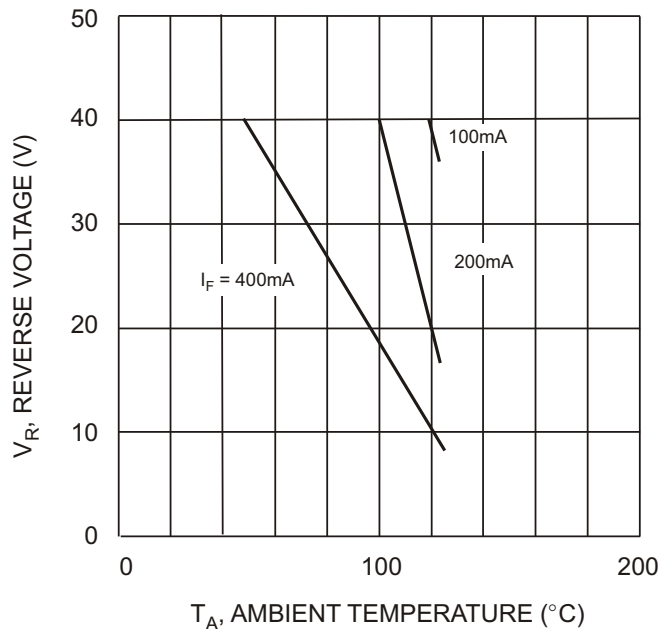


Fig. 3 Blocking Voltage Derating Curves

## Ordering Information (Note 3)

Device	Packaging	Shipping
LLSD103A-7 LLSD103A-13 LLSD103B-7 LLSD103B-13 LLSD103C-7 LLSD103C-13	MiniMELF	3000/Tape & Reel 10000/Tape & Reel 3000/Tape & Reel 10000/Tape & Reel 3000/Tape & Reel 10000/Tape & Reel

Notes: 3. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.