

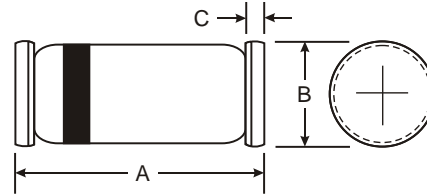
NOT RECOMMENDED FOR NEW DESIGNS
PLEASE USE SD103AW - SD103CW

Features

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Fast Reverse Recovery Time
- **Lead Free Finish, RoHS Compliant (Note 3)**

Mechanical Data

- Case: MiniMELF
- Case Material: Glass. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Finish Sn97.5Ag2.5. Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Ordering Information: See Last Page
- Marking: Cathode Band Only
- Weight: 0.05 grams (approximate)



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_A = 25°C unless otherwise specified

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

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage	V _F			0.37 0.60	V	I _F = 20mA I _F = 200mA
Peak Reverse Current (Note 2)	I _R			5.0	μA	V _R = 30V V _R = 20V V _R = 10V
Total Capacitance	C _T		50		pF	V _R = 0V, f = 1.0MHz
Reverse Recovery Time	t _{rr}			10	ns	I _F = I _R = 50mA to 200mA, I _{rr} = 0.1 x I _R , R _L = 100

- Note:
1. 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>.
 2. Short duration test pulse used to minimize self-heating effect.
 3. EC Directive 2002/95/EC (RoHS) revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied where applicable, see EU Directive Annex Notes 5 and 7.

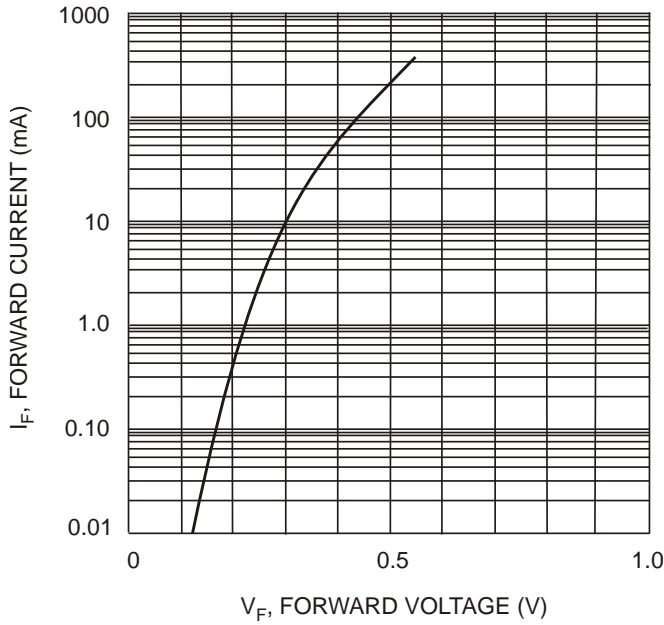


Fig. 1 Typical Forward Characteristics

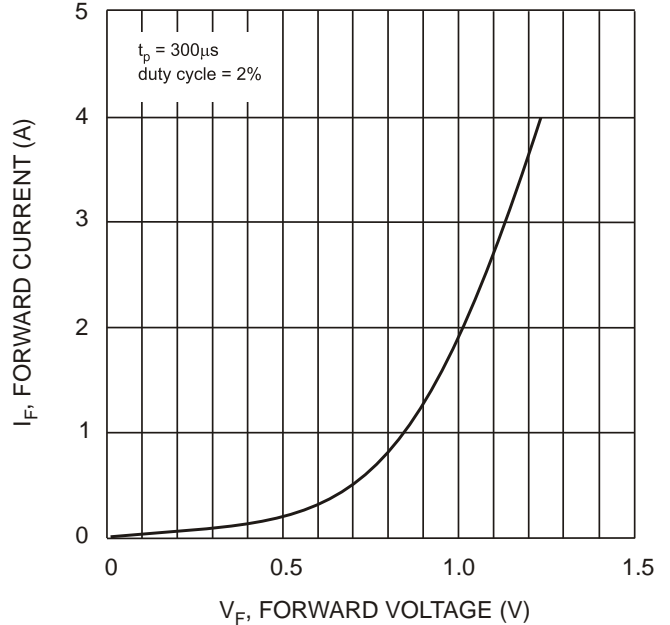


Fig. 2 Typical High Current Forward Characteristics

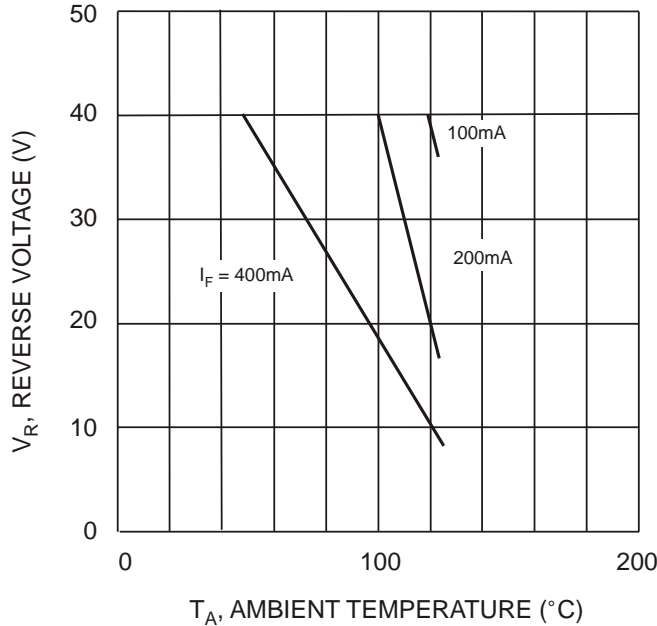


Fig. 3 Blocking Voltage Derating Curves

Ordering Information (Note 4)

Device	Packaging	Shipping
LLSD103A-7	MiniMELF	2.5K/Tape & Reel, 7-inch
LLSD103A-13	MiniMELF	10K/Tape & Reel, 13-inch
LLSD103B-7	MiniMELF	2.5K/Tape & Reel, 7-inch
LLSD103B-13	MiniMELF	10K/Tape & Reel, 13-inch
LLSD103C-7	MiniMELF	2.5K/Tape & Reel, 7-inch
LLSD103C-13	MiniMELF	10K/Tape & Reel, 13-inch

Notes: 4. For packaging details, visit our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

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