



**THE DATASHEET OF  
LL4448-7**



### Features and Benefits

- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- General Purpose Rectification
- Silicon Epitaxial Planar Construction
- **Lead Free Finish, RoHS Compliant (Note 1)**

### Mechanical Data

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

### Ordering Information (Note 2)

Part Number	Case	Packaging
LL4148-13	MiniMELF	10K/Tape & Reel, 13-inch
LL4448-7	MiniMELF	2.5K/Tape & Reel, 7-inch

Notes: 1. EU Directive 2002/95/EC (RoHS) & 2011/65/EU (RoHS 2). All applicable RoHS exemptions applied.  
2. For Packaging Details, go to our website at <http://www.diodes.com>.

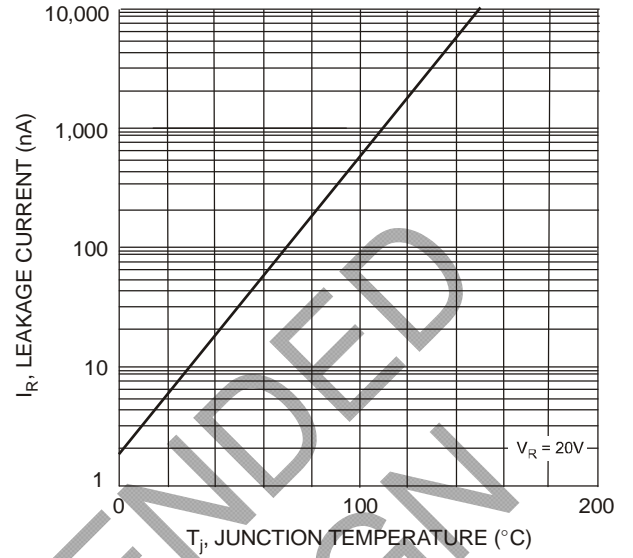
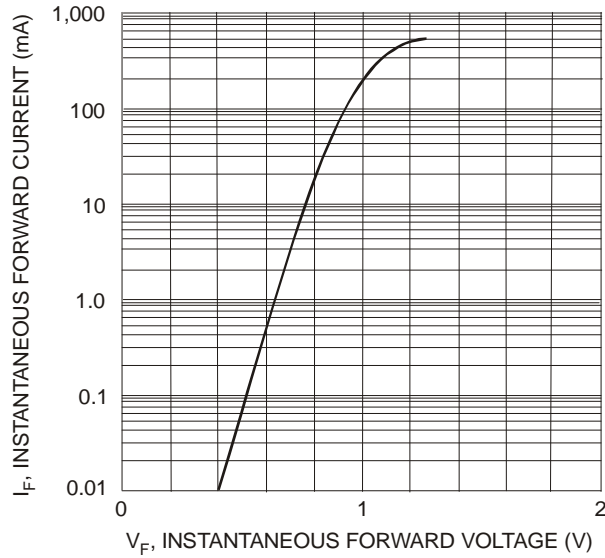
### Maximum Ratings @T<sub>A</sub> = 25°C unless otherwise specified

Characteristic	Symbol	LL4148	LL4448	Unit
Non-Repetitive Peak Reverse Voltage	V <sub>RM</sub>	100		V
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>			
Working Peak Reverse Voltage	V <sub>RWM</sub>	75		V
DC Blocking Voltage	V <sub>R</sub>			
RMS Reverse Voltage	V <sub>R(RMS)</sub>	53		V
Forward Continuous Current (Note 3)	I <sub>FM</sub>	300	500	mA
Average Rectified Output Current (Note 3)	I <sub>O</sub>	150		mA
Non-Repetitive Peak Forward Surge Current	I <sub>FSM</sub>	@ t = 1.0s	1.0	A
		@ t = 1.0µs	2.0	
Power Dissipation (Note 3)	P <sub>D</sub>	500		mW
Derate above 25°C		1.68		mW/°C
Thermal Resistance, Junction to Ambient Air (Note 3)	R <sub>θJA</sub>	300		K/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 TO +175		°C

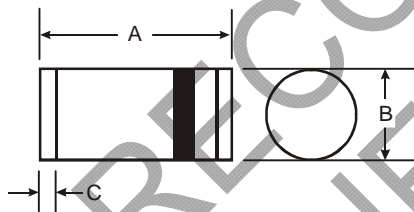
### Electrical Characteristics @T<sub>A</sub> = 25°C unless otherwise specified

Characteristic	Symbol	Min	Max	Unit	Test Condition	
Forward Voltage	V <sub>F</sub>	LL4148	-	1.0	V	I <sub>F</sub> = 10mA
		LL4448	0.62	0.72		I <sub>F</sub> = 5.0mA
		LL4448	-	1.0		I <sub>F</sub> = 100mA
Maximum Peak Reverse Current (Note 4)	I <sub>RM</sub>	-	5.0	µA	V <sub>R</sub> = 75V	
		-	50	µA	V <sub>R</sub> = 75V, T <sub>J</sub> = 150°C	
		-	30	µA	V <sub>R</sub> = 75V, T <sub>J</sub> = 150°C	
		-	25	nA	V <sub>R</sub> = 75V	
Capacitance	C <sub>J</sub>	-	4.0	pF	V <sub>R</sub> = 0, f = 1.0MHz	
Reverse Recovery Time	t <sub>rr</sub>	-	4.0	ns	I <sub>F</sub> = 10mA, to I <sub>R</sub> = 1.0mA, V <sub>R</sub> = 6.0V, R <sub>L</sub> = 100Ω	

Notes: 3. Valid provided that device terminals are kept at ambient Temperature.  
4. Short duration pulse test used to minimize self-heating effect.



**Package Outline Dimensions**



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

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