

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_A = 25°C unless otherwise specified

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

Electrical Characteristics @T_A = 25°C unless otherwise specified

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

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

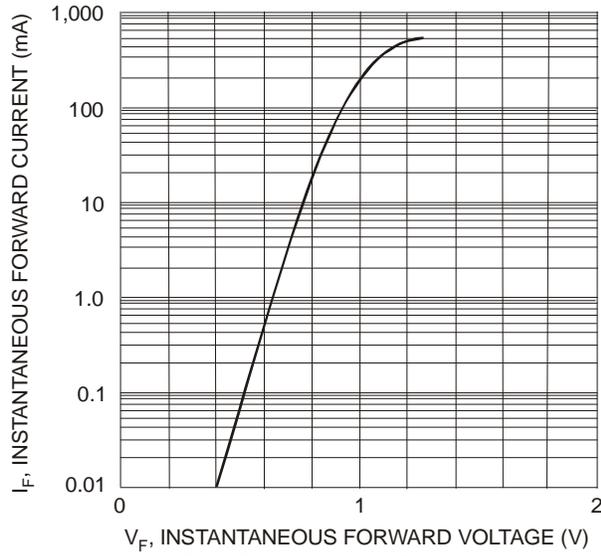


Fig. 1 Typical Forward Characteristics

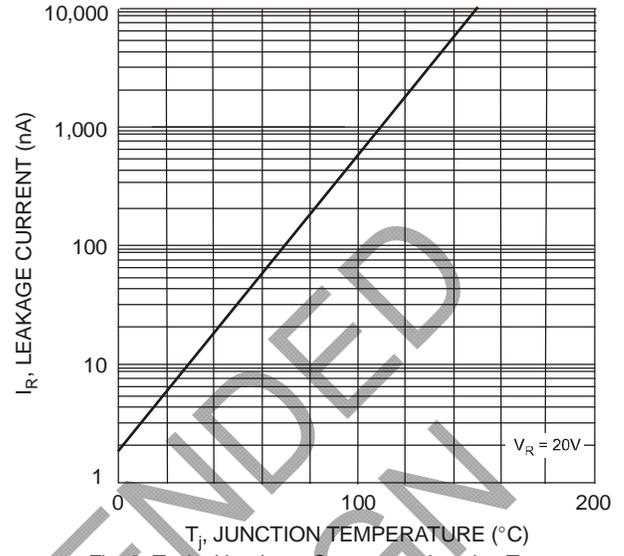
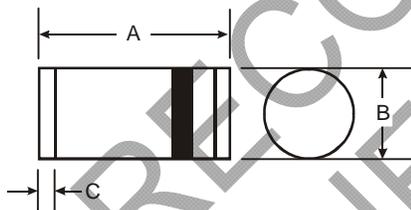


Fig. 2 Typical Leakage Current vs. Junction Temperature

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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