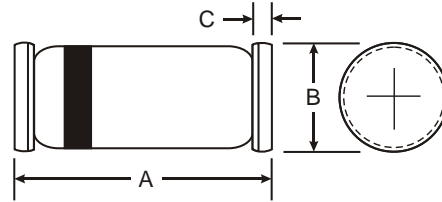


### Features

- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- General Purpose Rectification
- Silicon Epitaxial Planar Construction
- **Lead Free Finish, RoHS Compliant (Note 2)**

### Mechanical Data

- Case: MiniMELF
- Case Material: Molded Plastic. 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
- 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 @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	LL4148	LL4448	Unit
Non-Repetitive Peak Reverse Voltage	$V_{RM}$	100		V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	75		V
RMS Reverse Voltage	$V_{R(RMS)}$	53		V
Forward Continuous Current (Note 1)	$I_{FM}$	300	500	mA
Average Rectified Output Current (Note 1)	$I_O$	150		mA
Non-Repetitive Peak Forward Surge Current @ $t = 1.0\text{s}$ @ $t = 1.0\mu\text{s}$	$I_{FSM}$	1.0 2.0		A
Power Dissipation (Note 1) Derate Above $25^\circ\text{C}$	$P_d$	500 1.68		mW mW/ $^\circ\text{C}$
Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{JA}$	300		K/W
Operating and Storage Temperature Range	$T_j, T_{STG}$	-65 to +175		$^\circ\text{C}$

### Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Min	Max	Unit	Test Condition
Maximum Forward Voltage	$V_{FM}$	0.62	1.0 0.72 1.0	V	$I_F = 10\text{mA}$ $I_F = 5.0\text{mA}$ $I_F = 100\text{mA}$
Maximum Peak Reverse Current	$I_{RM}$		5.0 50 30 25	$\mu\text{A}$ $\mu\text{A}$ $\mu\text{A}$ nA	$V_R = 75\text{V}$ $V_R = 70\text{V}, T_j = 150^\circ\text{C}$ $V_R = 20\text{V}, T_j = 150^\circ\text{C}$ $V_R = 20\text{V}$
Capacitance	$C_j$		4.0	pF	$V_R = 0, f = 1.0\text{MHz}$
Reverse Recovery Time	$t_{rr}$		4.0	ns	$I_F = 10\text{mA}$ to $I_R = 1.0\text{mA}$ $V_R = 6.0\text{V}, R_L = 100$

- Notes:
1. Valid provided that device terminals are kept at ambient temperature.
  2. 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.

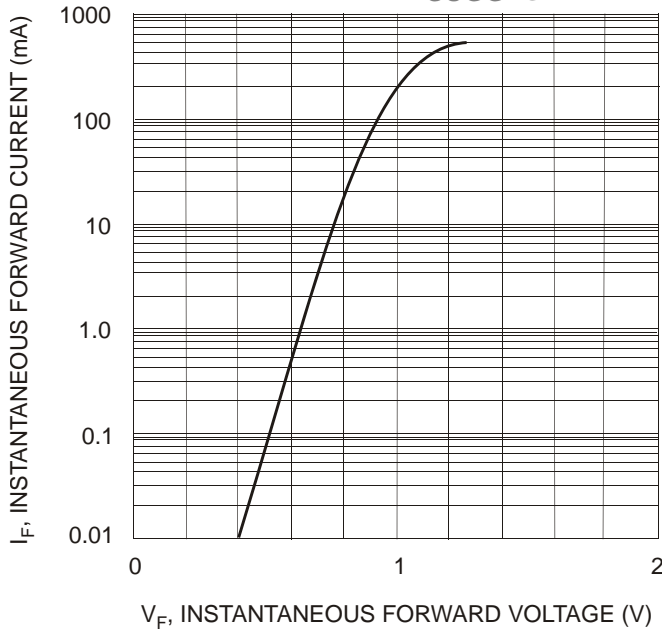


Fig. 1 Forward Characteristics

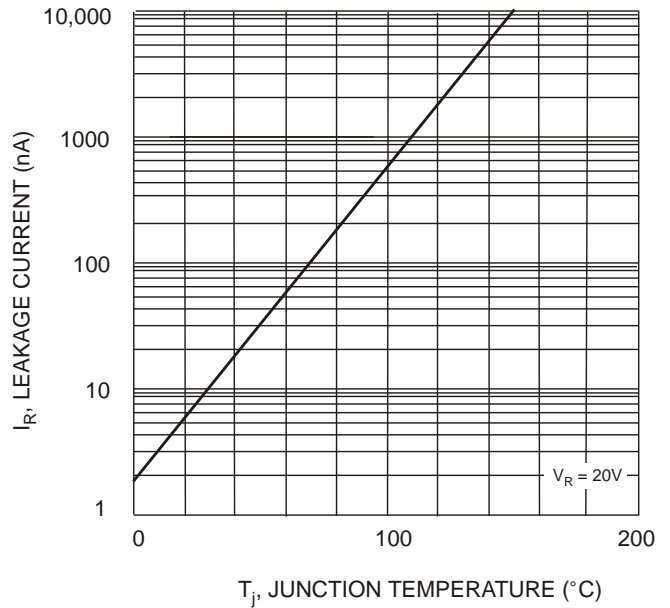


Fig. 2, Leakage Current vs Junction Temperature

**Ordering Information** (Note 3)

Device	Packaging	Shipping
LL4148-7	MiniMELF	2.5K/Tape & Reel, 7- inch
LL4148-13	MiniMELF	10K/Tape & Reel, 13-inch
LL4448-7	MiniMELF	2.5K/Tape & Reel, 7- inch

Notes: 3. For packaging details, visit our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

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