

## 1N4148 (LL4148) FAST SWITCHING DIODE

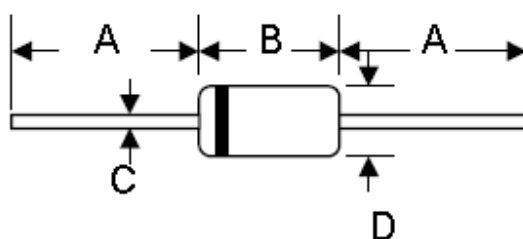
**Features:**

- Fast Switching Speed
- Glass Package Version for High Reliability
- High Conductance
- Available in Both Through-Hole and Surface Mount Versions
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

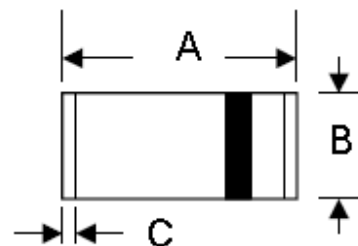
**Mechanical Data:**

- Case: DO-35, Mini MELF/DL-35
- Terminals: Plated leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode band
- Weight: DO-35 0.13 grams  
Mini MELF/DL-35 0.05 grams
- Marking: Cathode band

**Mechanical Dimensions: In mm/Inches**



**1N4148**



**LL4148**

DO-35				
Dim	Min	Max	Min	Max
A	25.40	—	1.000	—
B	—	4.00	—	0.157
C	—	0.60	—	0.024
D	—	2.00	—	0.079
	in mm		In inch	

**DO-35**

MiniMELF				
Dim	Min	Max	Min	Max
A	3.30	3.70	0.130	0.146
B	1.30	1.60	0.051	0.063
C	0.28	0.50	0.011	0.020
	In mm		In inch	

**Mini MELF/DL-35**

**Ordering Information:**

Device	Package	Shipping
1N4148	DO-35 (Pb-Free)	5000pcs /reel
LL4148	Mini MELF/DL-35 (Pb-Free)	2500pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

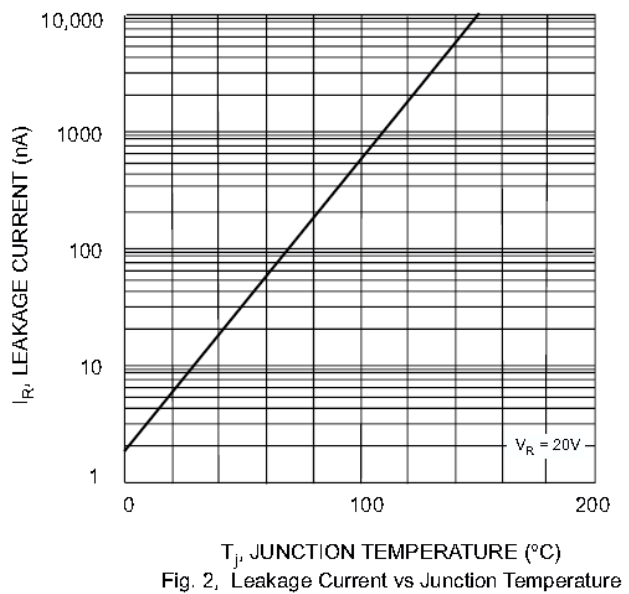
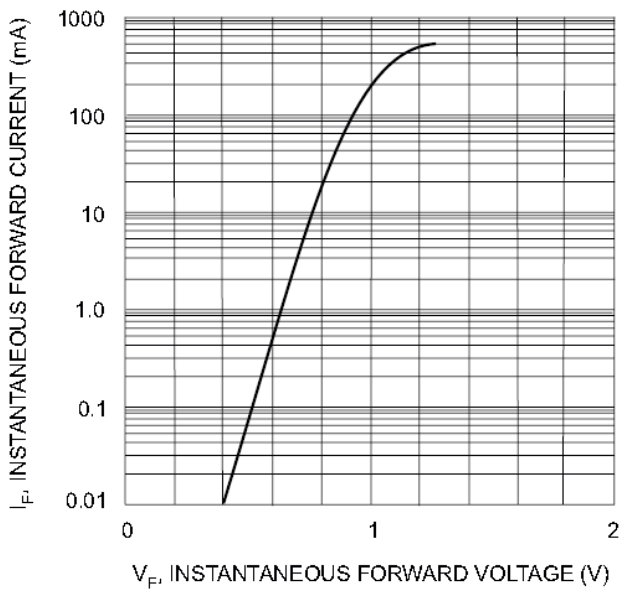
**Maximum Ratings @ $T_A=25^{\circ}\text{C}$  unless otherwise specified**

Characteristic	Symbol	Value	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	mA
Rectified Current(Average), Half Wave Rectification with Resistive Load and $f \geq 50\text{MHz}$ (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)	$R_{\theta JA}$	300	$^{\circ}\text{C}/\text{W}$
Junction 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
Forward Voltage	$V_{FM}$	-	1.0	V	@ $I_F=10\text{mA}$
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	$V_R=0\text{V}, f=1.0\text{MHz}$
Reverse Recovery Time	$t_{rr}$	-	4.0	ns	$I_F=10\text{mA}$ to $I_R=1.0\text{mA}$ $V_R=6.0\text{V}, R_L=100\Omega$

Note: 1. Diode on Ceramic substrate 10×8×0.7mm





1N4148 (LL4148)

**Technical Data**  
**Data Sheet N0230, Rev. -**

**Green Products**

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