

# LL4148. LL4448

## FAST SWITCHING DIODES

**REVERSE VOLTAGE:** 100 VOLTS  
**FORWARD CURRENT:** 150 mA

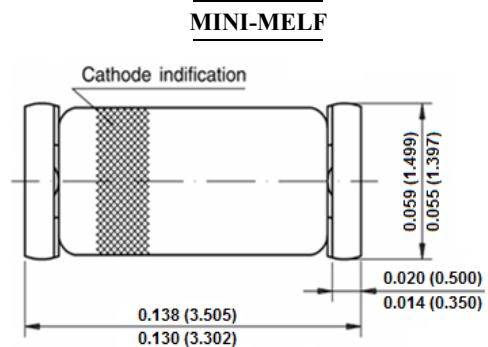
### FEATURES

- Silicon Epitaxial Planar Diodes
- Fast switching diodes.
- Electrical data identical with the devices 1N4148 and 1N4448 respectively

### MECHANICAL DATA

Case : Molded glass MINI-MELF

Polarity : Color band Indicates Negative Polarity



Dimensions in inches and (millimeters)

### Absolute Maximum Ratings

Tamb = 25 °C, unless otherwise specified

Parameter	Symbol	Value	Unit
Reverse Voltage	$V_R$	75	Volts
Repetitive Peak Reverse Voltage	$V_{RRM}$	100	Volts
Average Forward Current	$I_{FAV}$	150	mAmp
Non-repetitive Peak Forward Current	$I_{FM}$	450	mAmp
Peak Surge Forward Current at $t_p = 1 \mu s$	$I_{FSM}$	2	Amp
Power Dissipation	$P_{TOT}$	500	mWatt
Junction Temperature	$T_J$	175	°C
Storage Temperature Range	$T_{stg}$	-65 to +175	°C

### Electrical Characteristics

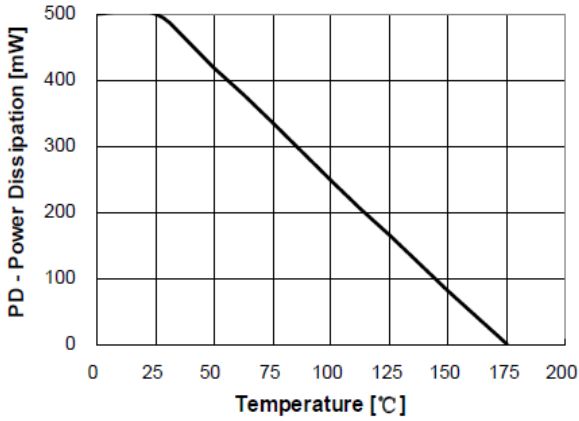
Tamb = 25 °C, unless otherwise specified

Parameter	Test Condition	Symbol	Min.	Max.	Units
Breakdown Voltage	$I_R = 100 \mu A$	$B_V$	100	-	Volt
	$I_R = 5 \mu A$		75	-	
Forward Voltage	LL4448 $I_F = 5 mA$	$V_F$	0.62	0.72	Volt
	LL4148 $I_F = 10 mA$		-	1.0	
	LL4448 $I_F = 100 mA$		-	1.0	
Reverse Leakage Current	$V_R = 20V$	$I_R$	-	25	nA
	$V_R = 75V$		-	5	uA
Capacitance	$V_R = 0, f = 1MHz$	$C_{TOT}$	-	4	pF
Reverse Recovery Time	$I_F = 10mA, V_R = 6V, R_L = 100\Omega, I_{RR} = 1mA$	$T_{RR}$	-	4	nS

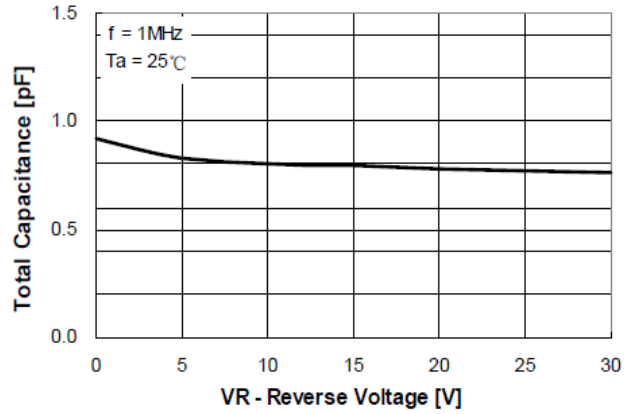
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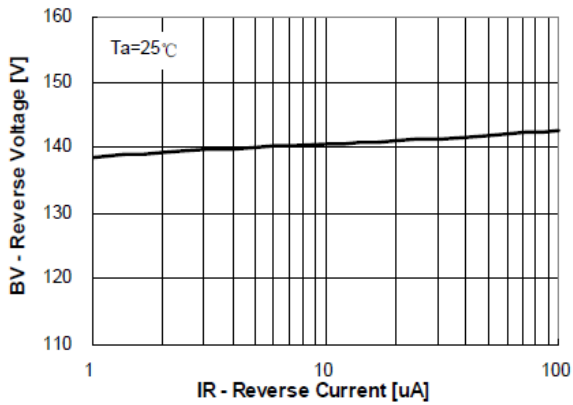
### RATINGS AND CHARACTERISTIC CURVES



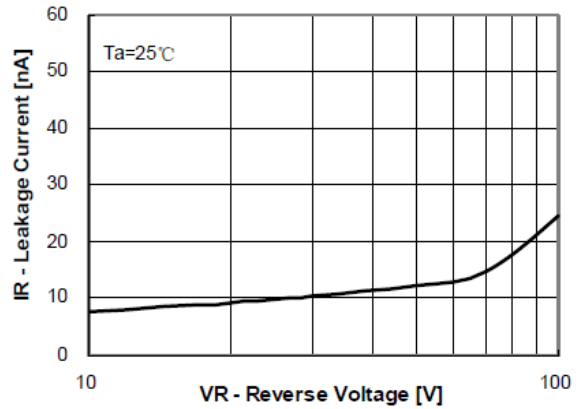
**Figure 1. Power Dissipation vs Ambient Temperature**  
Valid provided leads at a distance of 0.8mm from case are kept at ambient temperature



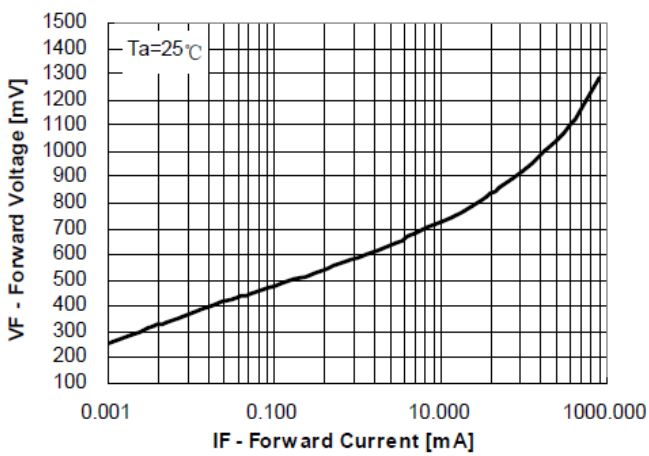
**Figure 2. Total Capacitance**



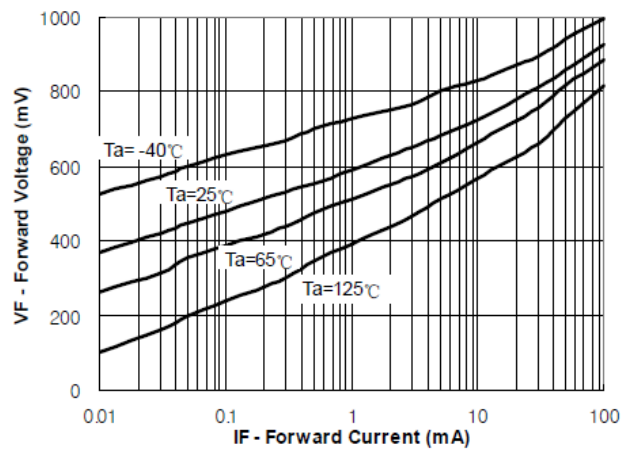
**Figure 3. Reverse Voltage vs Reverse Current**  
BV – 1.0uA to 100uA



**Figure 4. Reverse Current vs Reverse Voltage**  
IR – 10V to 100V



**Figure 5. Forward Voltage vs Forward Current**  
VF – 0.001mA to 800mA



**Figure 6. Forward Voltage vs Ambient Temperature**  
VF – 0.01mA to 100mA (-40 to +125 Deg C)