

LL4148. LL4448

FAST SWITCHING DIODES

REVERSE VOLTAGE: 100 VOLTS
FORWARD CURRENT: 150 mA

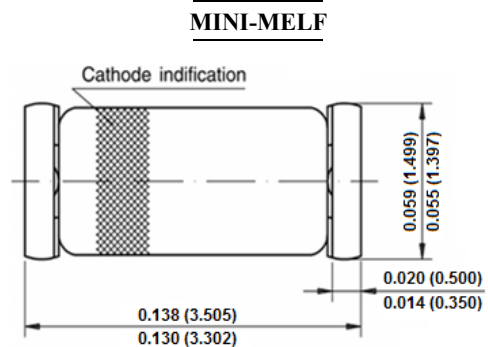
FEATURES

- 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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FAST SWITCHING DIODES

RATINGS AND CHARACTERISTIC CURVES

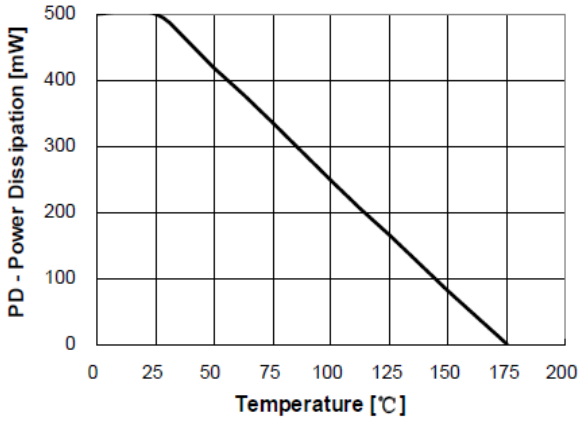


Figure 1. Power Dissipation vs Ambient Temperature
Valid provided leads at a distance of 0.8mm from case are kept at ambient temperature

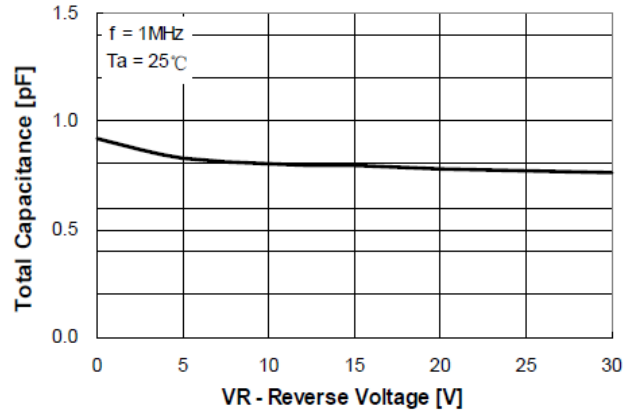


Figure 2. Total Capacitance

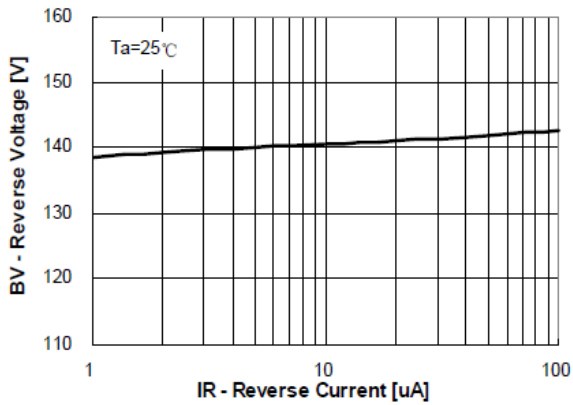


Figure 3. Reverse Voltage vs Reverse Current
BV – 1.0uA to 100uA

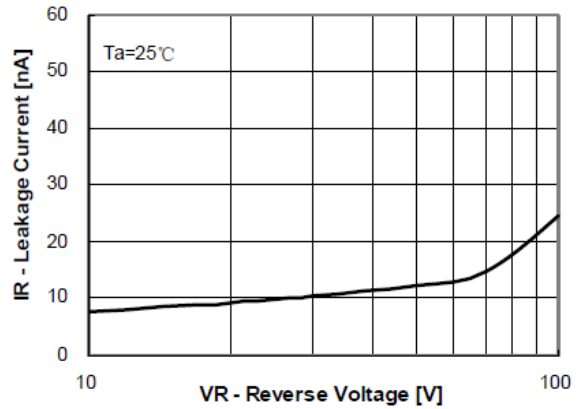


Figure 4. Reverse Current vs Reverse Voltage
IR – 10V to 100V

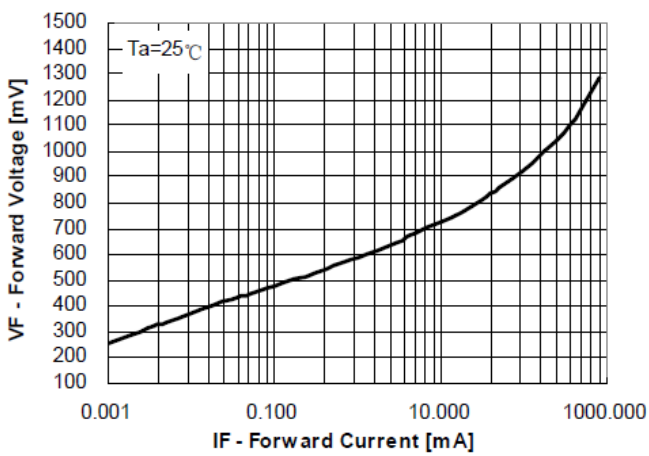


Figure 5. Forward Voltage vs Forward Current
VF – 0.001mA to 800mA

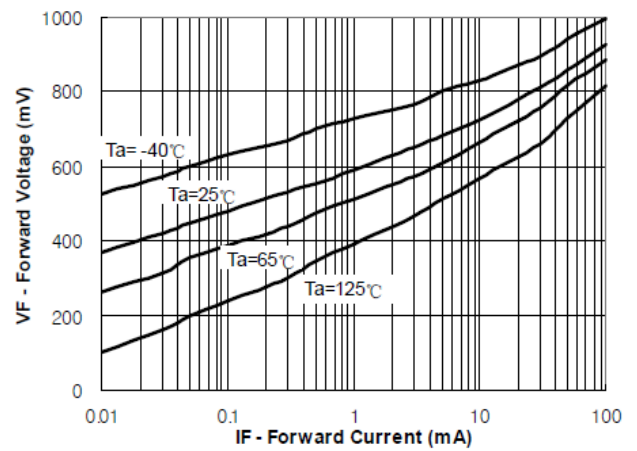


Figure 6. Forward Voltage vs Ambient Temperature
VF – 0.01mA to 100mA (-40 to +125 Deg C)