

Features

- Ultra-low resistance
- Small size
- Alternative shapes and sizes available on request
- Agency recognition ®
- RoHS compliant*

Applications

- Battery packs

BOURNS®

MF-LL Series - PTC Resettable Fuse

Electrical Characteristic

Model	V max. Volts	I max. Amps	Typical Current Trip Limit		Initial Resistance Values		1 Hour (R1) Post-Trip Resistance		Max. Time To Trip		Tripped Power Dissipation
			Amperes At 23 °C		mOhms At 23 °C		mOhms At 23 °C		Amperes At 23 °C	Seconds At 23 °C	Watts At 23 °C
			Hold	Trip	Min.	Max.	Min.	Max.			Typ.
MF-LL190	6	50	1.9	4.9	5	15	5	24	9.5	2.0	1.0

Environmental Characteristics

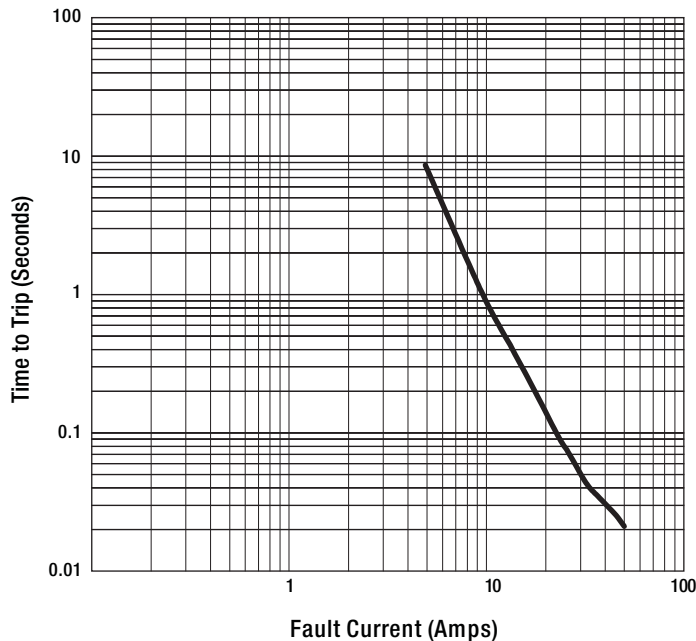
Operating/Storage Temperature.....-40 °C to +85 °C
 Maximum Device Surface Temperature in Tripped State+125 °C
 Storage Conditions+40 °C Max., 70 % RH Max., Packed in original packaging

Test Procedures And Requirements For Model MF-LL Series

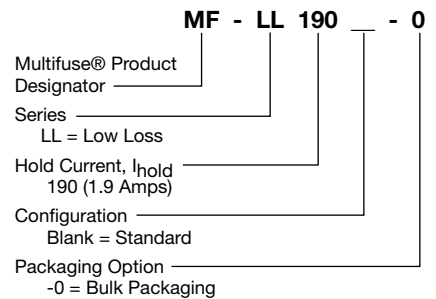
Test	Test Conditions	Accept/Reject Criteria
Humidity Aging	+60 °C, 95 % R.H., 1000 Hours.....	Typical resistance change +30 % to -30 %
Passive Aging	+60 °C, 1000 Hours	Typical resistance change +20 % to -20 %
Low temp storage	-40 °C, 1000 Hours.....	Typical resistance change +5 % to -5 %
Thermal Shock	+85 °C to -40 °C, 10 times.....	Typical resistance change +5 % to -5 %
Vibration	MIL-STD-883D, Method 2026	Rmin<R<R1 max

cUL File NumberE 174545S

Typical Time to Trip at 23 °C



How to Order



Typical Part Marking

None.

*RoHS Directive 2002/95/EC Jan 27, 2003 including Annex.
 Specifications are subject to change without notice.
 Customers should verify actual device performance in their specific applications.

MF-LL Series - PTC Resettable Fuse

BOURNS®

Thermal Derating Chart - I_{hold} (Amps)

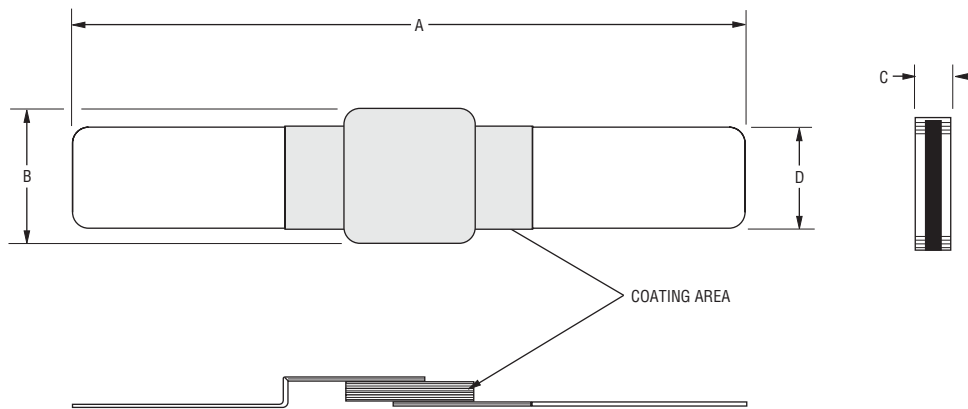
Model	Ambient Operating Temperature							
	-20 °C	0 °C	23 °C	40 °C	50 °C	60 °C	70 °C	85 °C
MF-LL190	2.90	2.50	1.90	1.50	1.30	1.10	0.90	0.50

Product Dimensions

Model	A		B		C		D	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
MF-LL190	$\frac{15.2}{(0.60)}$	$\frac{16.8}{(0.66)}$	$\frac{2.96}{(0.12)}$	$\frac{3.26}{(0.13)}$	$\frac{0.6}{(0.02)}$	$\frac{1.1}{(0.04)}$	$\frac{2.3}{(0.09)}$	$\frac{2.5}{(0.10)}$

Packaging: Bulk - 1000 pcs. per bag.
 Leads: 1/2 Hardened Nickel 0.1 mm (.004 ") nominal thickness

DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$



BOURNS®

Asia-Pacific: Tel: +886-2 2562-4117 • Fax: +886-2 2562-4116

Europe: Tel: +41-41 768 5555 • Fax: +41-41 768 5510

The Americas: Tel: +1-951 781-5500 • Fax: +1-951 781-5700

www.bourns.com

MF-LL SERIES, REV. E, 04/11

Specifications are subject to change without notice.
 Customers should verify actual device performance in their specific applications.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Resettable Fuses - PPTC](#) category:

Click to view products by [Bourns](#) manufacturer:

Other Similar products are found below :

[RF0077-000](#) [RF3256-000](#) [RF3301-000](#) [RF3382-000](#) [ASMD185-2](#) [SMD125-2](#) [RF2531-000](#) [RF2873-000](#) [RF3060-000](#) [TR600-150Q-B-0.5-0.130](#) [RXE090](#) [5E4795/04-1502](#) [TRF250-080T-B-1.0-0.125](#) [SMD100-2](#) [NIS5452MT1TXG](#) [NIS5431MT1TXG](#) [SMD250-2](#) [0ZCM0001FF2G](#) [0ZCM0003FF2G](#) [0ZCM0004FF2G](#) [BK60-017-DI](#) [BK60-075-DZ](#) [BK60-050-DI](#) [BSMD1210-050-13.2V](#) [SMD1210-500-6V](#) [SMD1210-550-6V](#) [SMD0603-075-6V](#) [SMD0603-100-6V](#) [SMD0603-150-6V](#) [JK-SMD0805-300L](#) [JK-SMD1210-300L](#) [JK-SMD1210-400L](#) [BSMD0603-050-9V](#) [BSMD0603-050-12V](#) [BSMD0805-035-12V](#) [BSMD1812L-600-12V](#) [FTR1812-014](#) [FTR1206-150](#) [FTR1206-110](#) [FTR1812-260/16](#) [FTR1210-035/30](#) [FTR1812-020](#) [SMD0805-110](#) [BSMD1206-200-16V](#) [FRV055-240F](#) [F95456-000](#) [SMD0603B020TF](#) [SMD0805B035TF](#) [SMD1210B075TF](#) [SMD1812B110TF](#)