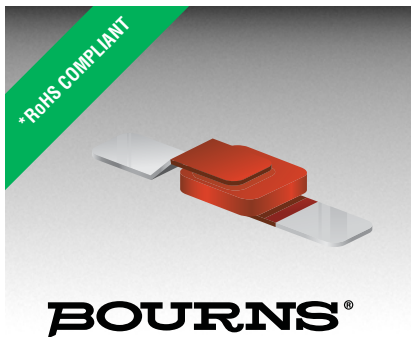




Features

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

Applications

- Battery packs

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

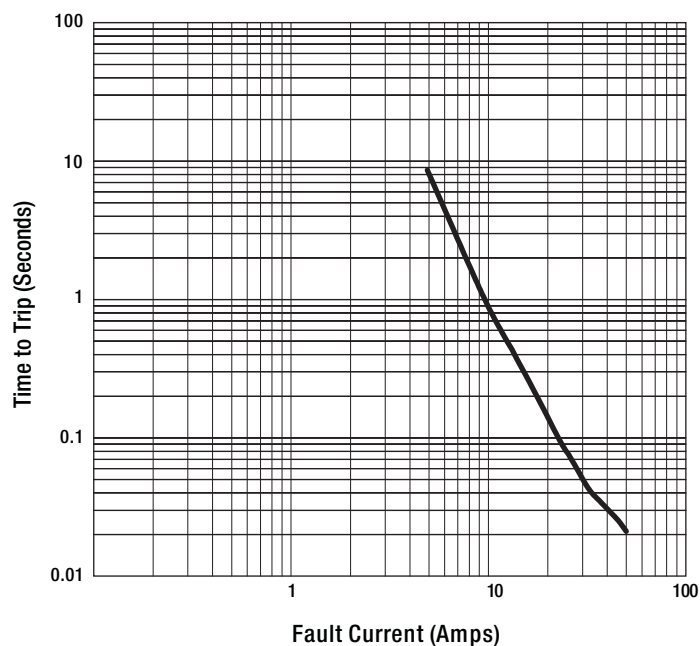
Test Conditions

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

MF - LL 190 - 0	
Multifuse® Product Designator	
Series	LL = Low Loss
Hold Current, I _{hold}	190 (1.9 Amps)
Configuration	Blank = Standard
Packaging Option	-0 = Bulk Packaging

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

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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

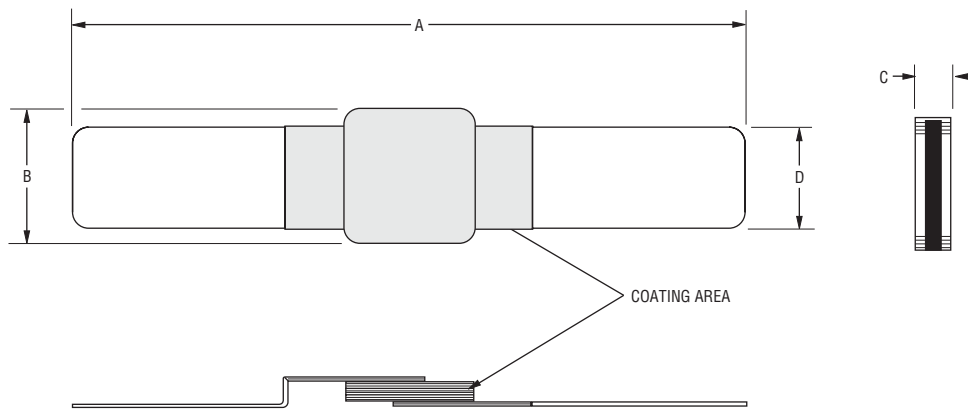
Product Dimensions

Model	A		B		C		D	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
MF-LL190	<u>15.2</u> (0.60)	<u>16.8</u> (0.66)	<u>2.96</u> (0.12)	<u>3.26</u> (0.13)	<u>0.6</u> (0.02)	<u>1.1</u> (0.04)	<u>2.3</u> (0.09)	<u>2.5</u> (0.10)

Packaging: Bulk - 1000 pcs. per bag.

Leads: 1/2 Hardened Nickel 0.1 mm (.004 ") nominal thickness

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



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

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

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