




## Features

- Axial leaded
- Fully compatible with current industry standards
- Weldable nickel terminals
- Very low internal resistance
- Operating currents to 9.0 amps
- RoHS compliant\*

■ Agency recognition:   

## MF-LR Series - PTC Resettable Fuses

### Electrical Characteristics

Model	V max. Volts	I max. Amps	I <sub>hold</sub>	I <sub>trip</sub>	Initial Resistance		1 Hour (R <sub>1</sub> ) Post-Trip Resistance	Max. Time to Trip		Tripped Power Dissipation
					Amperes at 23 °C		Ohms at 23 °C	Amperes at 23 °C	Seconds at 23 °C	Watts at 23 °C
			Hold	Trip	Min.	Max.	Max.			Typ.
MF-LR190	15	100	1.90	3.90	0.039	0.072	0.102	9.5	5.0	1.2
MF-LR260	15	100	2.60	5.80	0.020	0.042	0.083	13.0	5.0	1.3
MF-LR380	15	100	3.80	8.30	0.013	0.026	0.037	19.0	5.0	2.5
MF-LR450	16	100	4.50	8.90	0.011	0.020	0.028	22.5	5.0	1.4
MF-LR550	10	100	5.50	10.50	0.009	0.019	0.022	27.5	5.0	1.4
MF-LR600	10	100	6.00	11.70	0.007	0.014	0.019	30.0	5.0	2.8
MF-LR730	10	100	7.30	14.10	0.006	0.012	0.015	30.0	5.0	3.0
MF-LR730/20**	20	100	7.30	14.10	0.006	0.012	0.015	30.0	5.0	3.0
MF-LR900/20**	20	100	9.00	16.70	0.006	0.010	0.014	45.0	5.0	3.0

\*\* TÜV recognition and UL approval pending.

### Environmental Characteristics

Operating/Storage Temperature .....	-40 °C to +85 °C	
Maximum Device Surface Temperature in Tripped State .....	125 °C	
Passive Aging .....	+70 °C, 1000 hours.....	±10 % typical resistance change
Humidity Aging.....	+85 °C, 85% R.H. 7 days.....	±10 % typical resistance change
Vibration .....	MIL-STD-883C, Condition A.....	No change

### Test Procedures And Requirements For Model MF-LR Series

Test	Test Conditions	Accept/Reject Criteria
Visual/Mech. ....	Verify dimensions and materials .....	Per MF physical description
Resistance .....	In still air @ 23 °C .....	R <sub>min</sub> ≤ R ≤ R <sub>1max</sub>
Time to Trip.....	At specified current, V <sub>max</sub> , 23 °C.....	T ≤ max. time to trip (seconds)
Hold Current .....	30 min. at I <sub>hold</sub> .....	No trip
Trip Cycle Life.....	V <sub>max</sub> , I <sub>max</sub> , 100 cycles.....	No arcing or burning
Trip Endurance .....	V <sub>max</sub> , 48 hours.....	No arcing or burning

UL File Number ..... E 174545S  
 CSA File Number..... CA 110338  
 TÜV File Number..... R2057213

### Thermal Derating Chart - I<sub>hold</sub> (Amps)

Model	Ambient Operating Temperature								
	-40 °C	-20 °C	0 °C	23 °C	40 °C	50 °C	60 °C	70 °C	85 °C
MF-LR190	2.8	2.5	2.3	1.9	1.6	1.5	1.4	1.2	1.0
MF-LR260	3.8	3.4	3.1	2.6	2.2	2.0	1.9	1.7	1.4
MF-LR380	5.5	4.9	4.4	3.8	3.3	3.0	2.8	2.5	2.1
MF-LR450	6.5	5.8	5.3	4.5	3.9	3.6	3.3	2.9	2.5
MF-LR550	8.0	7.1	6.2	5.5	4.7	4.3	4.0	3.6	3.0
MF-LR600	8.7	7.8	7.1	6.0	5.2	4.7	4.4	3.9	3.3
MF-LR730	10.5	9.5	8.6	7.3	7.4	6.8	6.2	5.5	4.5
MF-LR730/20	10.5	9.5	8.6	7.3	7.4	6.8	6.2	5.5	4.5
MF-LR900/20	12.7	11.4	10.0	9.0	7.5	6.8	6.2	5.5	4.5

I<sub>trip</sub> is approximately two times I<sub>hold</sub>.

\*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011. Specifications are subject to change without notice.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time. Users should verify actual device performance in their specific applications.

# Applications

Any application that requires protection at low resistances:

- Rechargeable battery pack protection
- Cellular phones
- Laptop computers

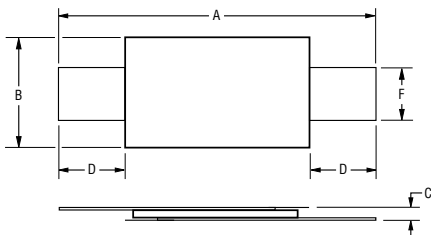
## MF-LR Series - PTC Resettable Fuses **BOURNS®**

### Product Dimensions

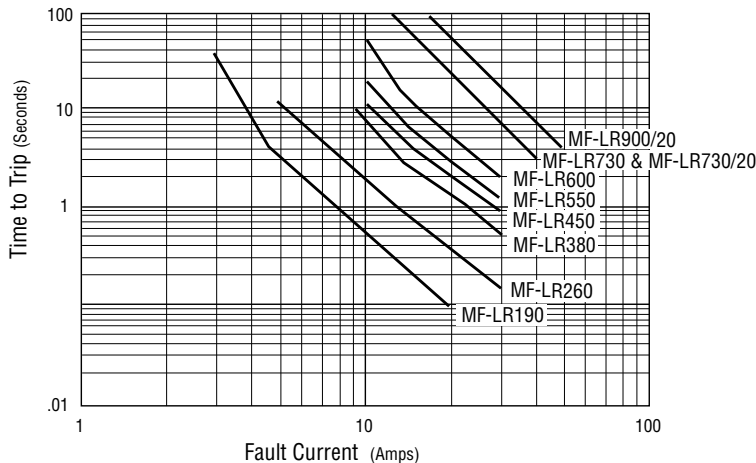
Model	A		B		C		D		F	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
MF-LR190	19.9 (0.783)	22.1 (0.870)	4.9 (0.193)	5.2 (0.205)	0.6 (0.024)	1.0 (0.039)	5.5 (0.217)	7.5 (0.295)	3.9 (0.154)	4.1 (0.161)
MF-LR260	20.9 (0.823)	23.1 (0.909)	4.9 (0.193)	5.2 (0.205)	0.6 (0.024)	1.0 (0.039)	4.1 (0.161)	5.5 (0.217)	3.9 (0.154)	4.1 (0.161)
MF-LR380	24.0 (0.945)	26.0 (1.024)	6.9 (0.272)	7.5 (0.295)	0.6 (0.024)	1.0 (0.039)	4.1 (0.161)	5.5 (0.217)	4.9 (0.193)	5.1 (0.201)
MF-LR450	24.0 (0.945)	26.0 (1.024)	9.9 (0.390)	10.5 (0.414)	0.6 (0.024)	1.0 (0.039)	5.3 (0.209)	6.7 (0.264)	5.9 (0.232)	6.1 (0.240)
MF-LR550	35.0 (1.378)	37.0 (1.457)	6.9 (0.272)	7.5 (0.295)	0.6 (0.024)	1.0 (0.039)	5.3 (0.209)	6.7 (0.264)	4.9 (0.193)	5.1 (0.201)
MF-LR600	24.0 (0.945)	26.0 (1.024)	13.9 (0.547)	15.9 (0.626)	0.6 (0.024)	1.0 (0.039)	4.1 (0.161)	5.5 (0.217)	5.9 (0.232)	6.1 (0.240)
MF-LR730	30.0 (1.18)	29.1 (1.146)	13.9 (0.547)	15.0 (0.590)	0.6 (0.024)	1.0 (0.039)	4.1 (0.161)	5.5 (0.217)	5.9 (0.232)	6.1 (0.240)
MF-LR730/20	27.1 (1.067)	29.1 (1.146)	13.9 (0.547)	14.5 (0.571)	0.6 (0.024)	1.0 (0.039)	4.1 (0.161)	5.5 (0.217)	5.9 (0.232)	6.1 (0.240)
MF-LR900/20	45.4 (1.787)	47.6 (1.874)	7.9 (0.311)	8.5 (0.335)	0.6 (0.024)	1.3 (0.051)	4.6 (0.181)	9.2 (0.362)	5.9 (0.232)	6.1 (0.240)

Packaging: Bulk - 500 pcs. per bag. Tape and Reel - Consult factory.

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

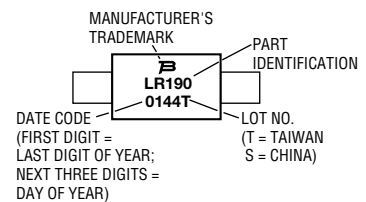


### Typical Time to Trip at 23 °C



### Typical Part Marking

Represents total content. Layout may vary.



### How to Order

**MF - LR 730/20 - 0**

Multifuse® Product Designator

Series LR = Axial Leaded "Strap" Component

Hold Current,  $I_{hold}/V_{max}^*$  190-900 (1.90 Amps - 9.00 Amps)

Packaging Options

- = Bulk Packaging Designator for Models MF-LR190 through MF-LR730
- 0 = Bulk Packaging Designator for Models MF-LR730/20 and MF-LR900/20
- 2 = Tape and Reel\*\*

\* $V_{max}$  entry applies only to Models MF-LR730/20 & MF-LR900/20.  
\*\*Packaged per EIA 486-B

MF-LR SERIES, REV. R, 02/14

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