# FAILSAFE FUSIBLE WIREWOUND RESISTORS



# **LF2 SERIES**

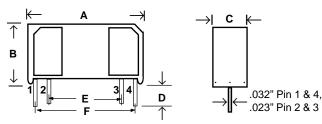


#### **FEATURES**

- □ Industry's widest range!
- ☐ Withstands lightning surges and power crosses
- $\square$  Resistance range:  $0.01\Omega$  to  $10K\Omega$
- $\square$  LF2 1 $\Omega$  to 1.6K meets UL497A, Bellcore GR1089, ITU-T K.20
- ☐ LF2A meets Bellcore TR1089 specifications
- ☐ Standard tolerance: ±1% or ±5% (available to ±0.01%)
- ☐ Available on RCD's exclusive **SWIFT** TM delivery program!

#### **OPTIONS**

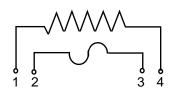
- ☐ Option A: TR1089 performance
- □ Option X: Non-inductive (0.2 $\mu$ H max  $\leq$ 50 $\Omega$ , 0.37 $\mu$ H >50 $\Omega$ )
- Option ER: 100 Hour Burn-In
- ☐ Customized fusing characteristics
- Matched pairs or groups





RCD type LF2 is designed to provide circuit protection for telecom applications, such as line feed, ADSL, HDSL, and switching networks, as well as snubber circuits, switching regulators, power faults, etc. The LF2 is a combination power resistor and isolated thermal fuse housed in a ceramic case. The combination enables the device to withstand short-time overloads (various lightning surges, AC power crosses, inrush currents, and ESD pulses), yet open safely under extended overload conditions. The all-welded internal construction combined with highest grade materials ensures utmost performance and reliability. For even greater protection under power cross conditions, as required by TR1089, specify LF2A.

#### **HOW TO USE LF2**



Pin #1 and #2 shall be shorted together by the user on the PCB. The LF2 resistor is connected into the circuit via pins #3 and #4.

RCD Type	Wattage @ 25°C	Resistance Range	DIMENSIONS Inch [mm]					
			Α	В	С	D	E	F
LF2	2.0 W	0.01Ω - 10ΚΩ*	1.045±.02 [26.5±.5]	.450±.02 [11.43±.5]	.265±.02 [6.73±.5]	.125 Min. [3.17±.5]	.700±.015 [17.78±.4]	.900±.015 [22.86±.4]

<sup>\*</sup> LF2A resistance range is  $1.8\Omega$  to  $100\Omega$ 

## TYPICAL PERFORMANCE CHARACTERISTICS

Wattage Derating	21mW/°C >25°C			
Load Life (1000 hours)	±0.5%			
Moisture Resistance	±1%			
Temperature Cycling	±0.5% (-55 to +120°C)			
Short Time Overload	±0.2%(10W, 5 Sec)			
Lightning Surge Capability LF2 5.6Ω -10K LF2A 1.8 -100Ω	$10\mu Sx1000\mu S$ 1KV/100A peak, $10\Omega$ source, 50 pulses x 60S rep (peak voltages up to 10KV avail.)			
Temperature Coefficient .10 $\Omega$ to .99 $\Omega$ 1 $\Omega$ and above	Standard Optional 90ppm 10,20,30,50 50ppm 10,20,30			
Operating Temperature	-55°C to +120°C std (may be higher or lower on custom designs depending on fuse rating)			
Flammability	UL 94V-0, EC 695-2-2			
Fusing Characteristics	100W 100W 30W 10W 10 20 30 50 100 200 300 500 LF2Fusing Range (Seconds, Typ.)			

### **APPLICATION NOTES:**

Failsafe surge resistors are often tailored to particular customer requirements. Consultation with RCD's Engineering department is recommended on all applications to ensure optimum performance at the most cost-effective price. Depending on the application, Series LF2 or LF2A can often satisfy the requirements of UL497A, UL1950, UL1459, FCC Part 68, REA 397 & PE60, Bellcore GR1089 & TR1089, ITU-T K.20 & K.21, VDE 0750, IEC 1000-4, CCITT K17, IEEE 472 &587, ANSI C37.90 & C62.41, SAE J1113, MIL-STD-704, MIL-STD-1399, & MIL-STD-1275.

