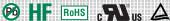
# **Surface Mount Fuses** NANO<sup>2®</sup> > 500 VDC Rated Fuse > 885 Series

# 885 Series Fuse













### **Agency Approvals**

AGENCY	AGENCY FILE NUMBER	AMPERE RANGE	
c <b>91</b> °us	E10480	1A-5A	
<b>A</b>	R50395911	1A-5A	

### **Electrical Characteristics for Series**

% of Ampere Rating	Opening Time
125%	1 hour, Minimum
200%	2 minutes, Maximum
1000%	1 second, Maximum

### **Description**

The 885 Nano<sup>2®</sup> Surface Mount Fuses are high voltage rated fuses with high interrupting current ratings at 450VDC/500VDC and 350VAC. It complies with IEC 60127-7 Standard.

#### **Features**

- Heat resistant plastic body, UL 94 V-0
- Meets Littelfuse's Automotive qualifications\*
- Low voltage drop
- High Reliability Solderless Fuse

- · High pulse resistance
- Lead-free -- compatible with lead-free solders and higher temperature profiles
- Halogen-free and RoHS compliant

### **Applications**

- · Li-ion battery packs used in electric vehicles
- Battery Management Systems (BMS)
- Sense lines
- HV DC/DC converter

### **Additional Information**









Samples

# **Electrical Specifications by Item**

Ampere Amp Voltage		lata munatia a	Nominal Cold	Nominal	Nominal	Nom Power	Agency Approvals			
Rating Code Ra	Rating (V)	Interrupting Rating	Resistance (Ohms) <sup>1</sup>	Melting I²t (A²sec)	Voltage Drop (mV)	Dissipation (mW)	c <b>FL</b> °us	<b>A</b>		
1.00	001.				0.0780	0.80	105	105	X	X
1.25	1.25		1500A @ 350VDC 100A @ 500VDC 100A @ 350VAC	0.0630	1.25	105	131	X	X	
1.60	01.6	E00		0.0473	2.30	98	157	X	X	
2.00	002.	500		0.0322	4.70	91	182	X	X	
2.50	02.5		1500A @ 125VDC 100A @ 500VDC	0.0267	6.90	88	220	X	X	
3.15	3.15		100A @ 500VDC 100A @ 350VAC	0.0196	13.35	79	249	X	X	
4.00	004.	450	1500A @ 125VDC 100A @ 450VDC	0.0152	21.30	79	316	X	X	
5.00	005.			100A @ 450VDC 100A @ 350VAC	0.0119	35.00	79	395	Х	X

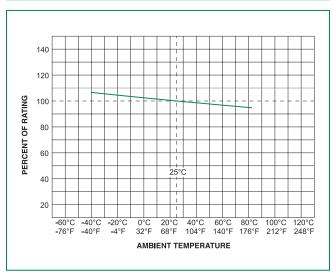
#### Notes:

- 1. Cold resistance measured at less than 10% of rated current at 23°C.
- 2. I2t values slated for 10xIn opening time
- 3. If you have special electrical characteristic needs, please contact Littelfuse to discuss application specific options.

<sup>\*</sup> Largely based on Littelfuse internal AEC-Q200 test plan



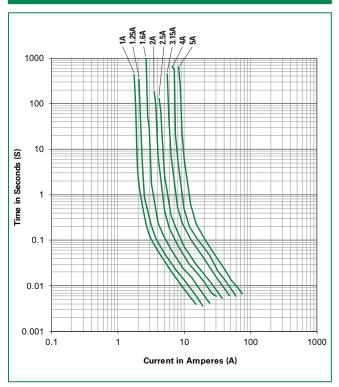
# **Temperature Re-rating Curve**



Note:

 Rerating depicted in this curve is in addition to the standard derating of 25% for continuous operation.

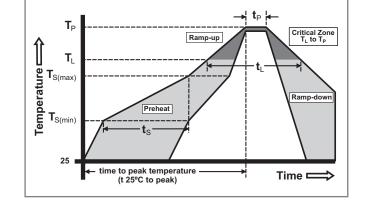
# **Average Time Current Curves**



### **Soldering Parameters**

Reflow Co	ndition	Pb – Free assembly	
Pre Heat	-Temperature Min (T <sub>s(min)</sub> )	150°C	
	-Temperature Max (T <sub>s(max)</sub> )	200°C	
	-Time (Min to Max) (t <sub>s</sub> )	60 - 120 secs	
Average ra	amp up rate (LiquidusTemp k	5°C/second max.	
T <sub>S(max)</sub> to T <sub>I</sub>	- Ramp-up Rate	5°C/second max.	
Reflow	-Temperature (T <sub>L</sub> ) (Liquidus)	217°C	
	-Temperature (t <sub>L</sub> )	60 - 90 seconds	
PeakTemp	erature (T <sub>P</sub> )	260+0/-5 °C	
Time within 5°C of actual peak Temperature (t <sub>p</sub> )		20 - 40 seconds	
Ramp-down Rate		5°C/second max.	
Time 25°C to peakTemperature (T <sub>P</sub> )		8 minutes max.	
Do not exceed		260°C	
	-	000000	
		260°C Peak	

Temperature, 3 seconds max.



Wave Soldering Parameters

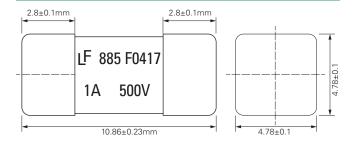


### **Product Characteristics**

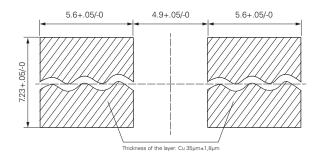
Materials	Body: Plastic UL 94 V-0 Cap: Tin Plated Brass	
Product Marking	Body: Brand Logo, Current Rating, Voltage Rating, Series, Date Code	
Solderability	JESD22-B102E Method 1	
Resistance to Soldering Heat	MIL-STD-202 Method 210 Test Condition K	

Operating Temperature	-40°C to +85°C with proper derating
Climatic Category	IEC 60068-1, -2-1, -2-2, -2-78 (-40°C to +85°C/21 days)
Vibration	MIL-STD-202 Method 201 and 204
Moisture Sensitivity Level	J-STD-020, Level 1

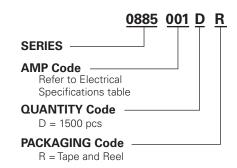
#### **Dimensions**



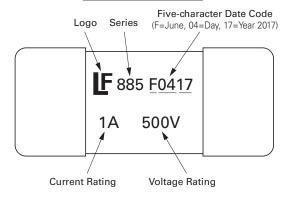
#### Recommended Pad Layout



### **Part Numbering System**



#### **Date Code Information**



### **Packaging**

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	
Tape and Reel	EIA-481-D	1500	D	

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