

### RoHS 462 Series Fuse



#### Description

The 462 series Nano<sup>2®</sup> Surface Mount Fuse has time-lag current characteristics with interrupting ratings rated at 250V and 350V. It complies with IEC 60127-4 Universal Modular Fuse-Links.

#### Features

- Heat resistant plastic housing, UL 94 V-0
- Designed for line or low voltage applications
- Low voltage drop
- Internationally approved
- High pulse resistance
- Lead-free – compatible with lead-free solders and higher temperature profiles
- Available in ratings of 500mA to 5A

#### Applications

- Lighting ballast
- AC/DC adaptor primary protection
- Transformerless AC/DC converter circuit
- High DC voltage power distribution system

#### Agency Approvals

AGENCY	AGENCY FILE NUMBER	AMPERE RANGE
	E67006	500mA - 4A
	40022235 40027839	1A, 1.6A, 3.15A, 4A 2A
	5007679-1170-0040 / 88238	500mA - 5A

#### Electrical Characteristics for Series

% of Ampere Rating	Opening Time
125%	1 hour, Minimum
200%	2 minutes, Maximum
1000%	10 milliseconds, Minimum 100 milliseconds, Maximum

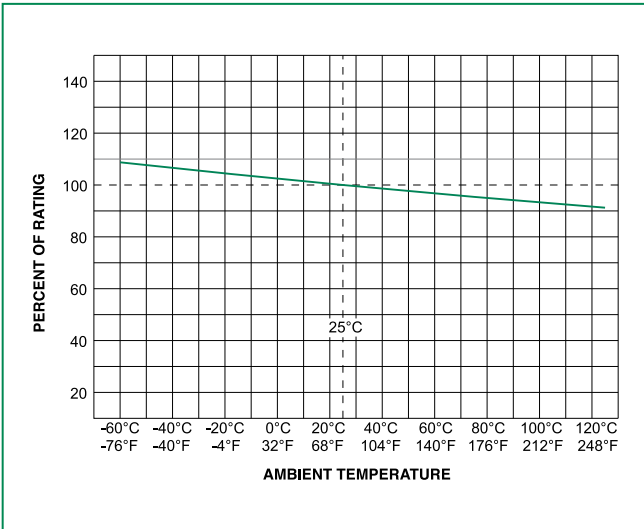
#### Electrical Specifications by Item

Ampere Rating (A)	Amp Code	Max Voltage Rating (V) <sup>5</sup>	Interrupting Rating	Nominal Cold Resistance (Ohms) <sup>1</sup>	Nominal Melting I <sup>2</sup> t (A <sup>2</sup> sec)	Nom Voltage Drop (mV)	Nom Power Dissipation (mW)	Agency Approvals <sup>3</sup>			
0.500	0500	250	100A @ 350VAC/VDC <sup>4</sup>	0.2270	0.43	160	200	X		X	
0.630	0630			0.1570	0.80	160	200	X		X	
0.800	0800			0.1300	1.40	160	250	X		X	
1.00	1100			0.0867	2.70	140	250	X	X	X	
1.25	1125			0.0602	5.20	130	250	X		X	
1.60	1160			0.0443	9.70	130	280	X	X	X	
2.00	1200			0.0335	5.44	120	300	X	X	P	
2.50	1250			0.0278	8.00	120	450	X		P	
3.15	1315			0.0204	14.00	110	600	X	X	P	
4.00	1400			0.0158	21.00	110	800	X	X	P	
5.00	1500			150A @ 250VAC/VDC	0.0124	40.00	110	1000			P

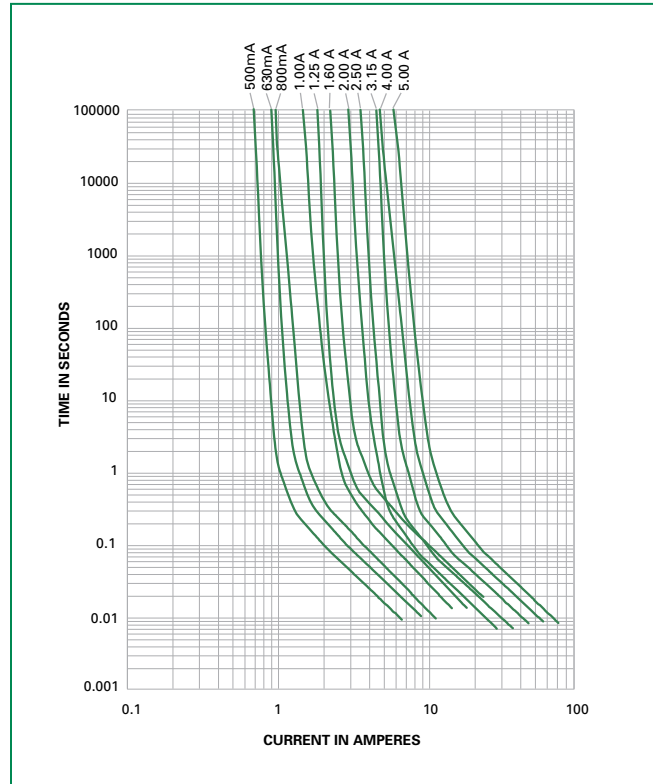
1. Cold resistance measured at less than 10% of rated current at 23°C  
 2. I<sup>2</sup>t values slated for 8ms opening time  
 3. Agency Approval Table Key: X = Approved or Certified, P = Pending  
 4. UL Recognition - IR at 100A @ 350 VAC/VDC  
 5. Rated at 350VAC/VDC per UL Recognition under UL248 (up to 4A only).  
 Rated at 250VAC/VDC per VDE under IEC standard 60127-4.

If you have special electrical characteristic needs, please contact Littelfuse to discuss application specific options.

### Temperature Derating Curve

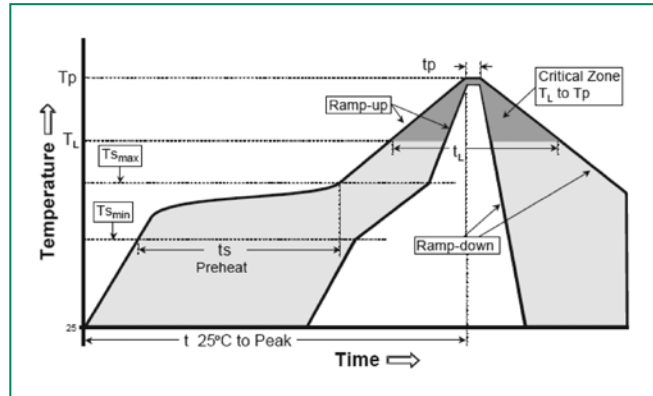


### Average Time Current Curves



### Soldering Parameters

Reflow Condition		Pb – free assembly
Pre Heat	- Temperature Min ( $T_{s(min)}$ )	150°C
	- Temperature Max ( $T_{s(max)}$ )	200°C
	- Time (Min to Max) ( $t_s$ )	60 – 120 seconds
Average Ramp-up Rate (Liquidus Temp ( $T_L$ ) to peak)		5°C/second max.
$T_{s(max)}$ to $T_L$ - Ramp-up Rate		5°C/second max.
Reflow	- Temperature ( $T_L$ ) (Liquidus)	217°C
	- Temperature ( $t_L$ )	60 – 90 seconds
Peak Temperature ( $T_p$ )		250 <sup>+0/-5</sup> °C
Time within 5°C of actual peak Temperature ( $t_p$ )		20 – 40 seconds
Ramp-down Rate		5°C/second max.
Time 25°C to peak Temperature ( $T_p$ )		8 minutes max.
Do not exceed		260°C

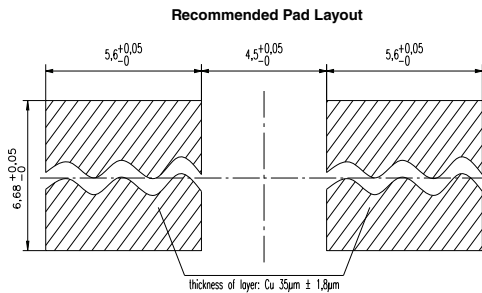
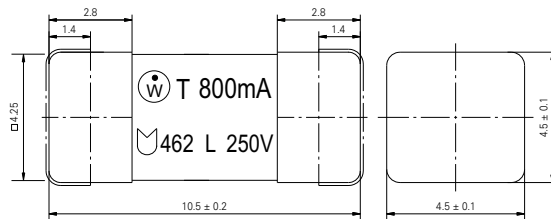


### Product Characteristics

<b>Materials</b>	<b>Body:</b> Plastic UL 94 V-0 <b>Cap:</b> Tin-plated brass
<b>Product Marking</b>	<b>Body:</b> Brand Logo, "T" for Time-Lag, Current Rating, L Voltage Rating, UMF logo
<b>Solderability</b>	IEC 60068-2-58
<b>Resistance to Soldering Heat</b>	IEC 60068-2-58

<b>Operating Temperature</b>	-40°C to +85°C with proper derating
<b>Climatic Category</b>	IEC60068-1, -2-1, -2-2, -2-78 (-40°C to +85°C / 21 days)
<b>Vibration</b>	IEC60068-6 (24 cycles of 15 mins each, 1-60 Hz at 0.75mm amplitude, 60-2000 Hz at 10g acceleration)
<b>Moisture Sensitivity Level</b>	Level 1 J-STD-020C

### Dimensions



### Part Numbering System

**462 0 500 0 0 0 0**

<b>SERIES</b>	462	<b>RESERVE CHARACTER</b>	0: Default
<b>AMP CODE</b>	0	<b>PACKAGING CODE</b>	0: Tape and Reel, 1500 pcs
0: < 1A 1: > 1A		<b>VARIANT</b>	0: Standard
<b>AMP RATING</b>	500	<b>KIND</b>	0: Standard
100: 1A 125: 1.25A 160: 1.6A 200: 2A 250: 2.5A 315: 3.15A 400: 4A 500: 500mA, 5A 630: 630mA 800: 800mA			

#### Examples:

0.5 amp (500mA) product is

462 **0 500** 0 0 0 0

5.0 amp product is

462 **1 500** 0 0 0 0

Please refer to Amp Code column of the Electrical Specifications table on the first page of this document.

### Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code
16mm Tape and Reel	IEC 60286, part 3	1500	0