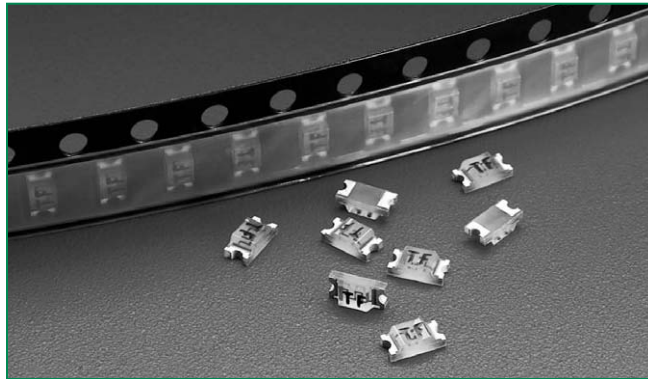


## 430 Series Fuse



### Description



The 430 series time-lag (Slo-Blo) surface mount fuse series is a small (1206 size) thin-film device designed for secondary protection of circuits used in space constrained applications such as hand-held portable electronic devices.

For RoHS compliant and lead-free design, please refer to the Littelfuse 468 series thin film fuse.

### Features

- For RoHS compliant and Lead-Free designs use 468 series
- Time delay feature withstands high in-rush currents and prevents nuisance openings.
- Package is visually distinct from fast-acting version for easy identification.
- Top side marking allows visual verification of amperage rating.

### Agency Approvals

Agency	Agency File Number	Ampere Range
	E10480	500mA - 3A
	LR29862	500mA - 3A

### Electrical Characteristics for Series



% of Ampere Rating	Opening Time at 25°C
100%	4 hours, Minimum
200%	1 sec., Min.; 120 sec., Max.
300%	0.1 sec., Min.; 3 sec., Max
800%	0.002 sec., Min.; .05 sec., Max.

### Applications

Secondary protection for space constrained applications such as:

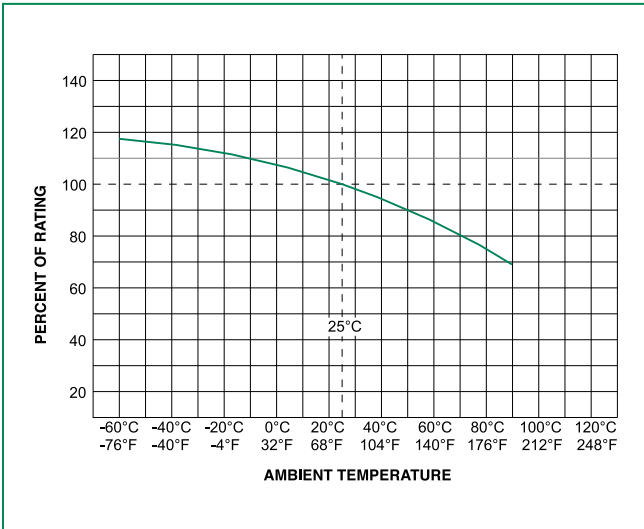
- Cell phones
- Battery packs
- Digital cameras
- DVD players
- Hard disk drives.

### Electrical Specifications by Item

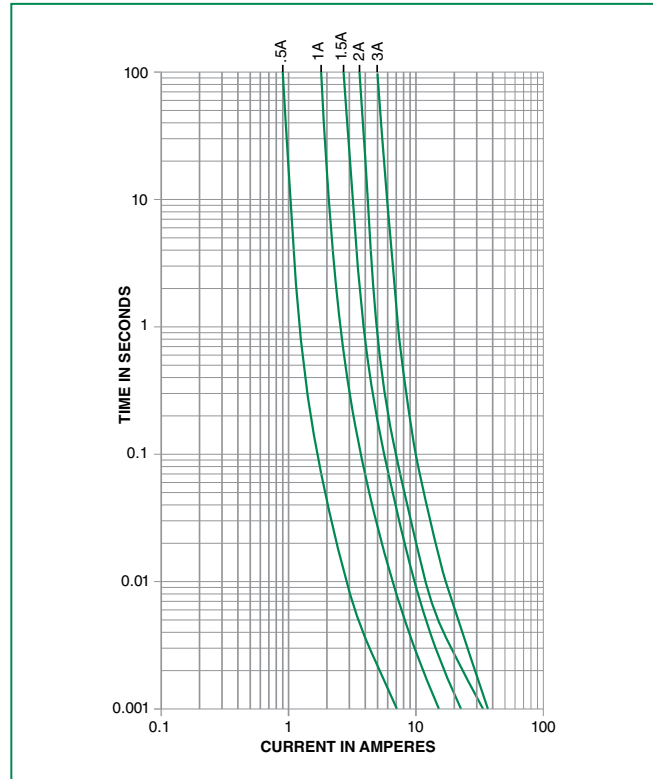
Ampere Rating (A)	Amp Code	Max Voltage Rating (V)	Interrupting Rating	Nominal Cold Resistance (Ohms)	Nominal Melting I <sup>2</sup> t (A <sup>2</sup> sec)	Agency Approvals	
							
0.500	.500	63	50 amperes at 63 VAC/VDC	0.2500	0.0305	x	x
1.00	001.	63		0.09700	0.1440	x	x
1.50	01.5	63		0.05600	0.2980	x	x
2.00	002.	63	35 amperes at 63 VAC/VDC	0.03900	0.4940	x	x
3.15	003.	32	50 amperes at 63 VAC/VDC	0.02000	1.3300	x	x

1. Measured at 10% of rated current, 25°C.
2. Measured at rated voltage.

### Temperature Derating Curve

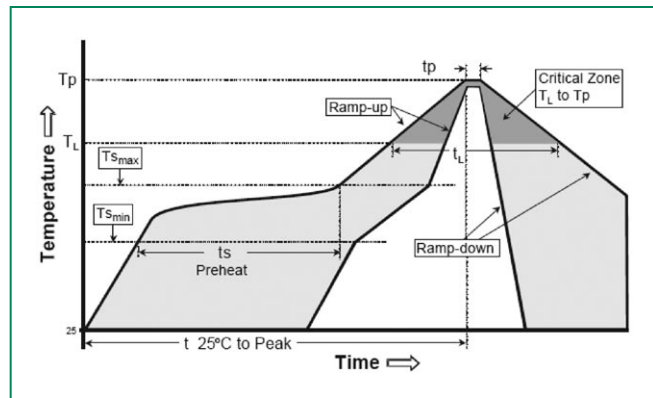


### Average Time Current Curves



### Soldering Parameters - Wave Soldering

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 – 180 secs
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 – 150 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

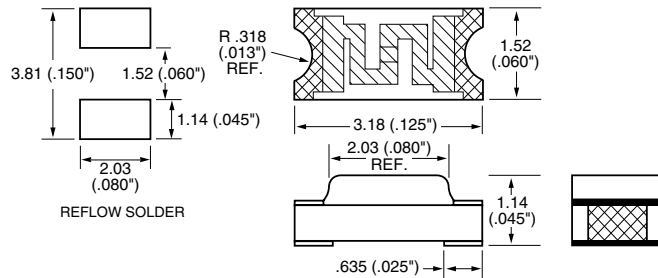


## Product Characteristics

<b>Materials</b>	<b>Body:</b> Epoxy Substrate <b>Terminations:</b> 95% Tin / 5% Lead over Nickel over Copper <b>Element Cover Coat:</b> Conformal Coating
<b>Operating Temperature</b>	- 55°C to 90°C. Consult temperature derating curve chart. For operation above 90°C contact Littelfuse.
<b>Humidity</b>	MIL-STD-202F Method 103B Condition D
<b>Thermal Shock</b>	Withstands 5 cycles of - 55°C to 125°C

<b>Vibration</b>	Withstands 10-55 Hz per MIL-STD-202F, Method 201A and 10-2000 Hz at 20 G's per MIL-STD-202F, Method 204D, Condition D
<b>Insulation Resistance (After Opening)</b>	Greater than 10,000 ohms
<b>Resistance to Soldering Heat</b>	Withstands 60 seconds above 200°C and up to 260°C, maximum

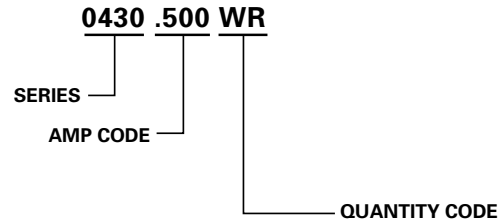
## Dimensions



## Part Marking System

Amp Code	Marking Code
.500	<b>F</b>
001.	<b>H</b>
01.5	<b>K</b>
002.	<b>N</b>
003.	<b>P</b>

## Part Numbering System



## Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code
8mm Tape and Reel	EIA RS-481-2 (IEC 286, part 3)	3000	WR