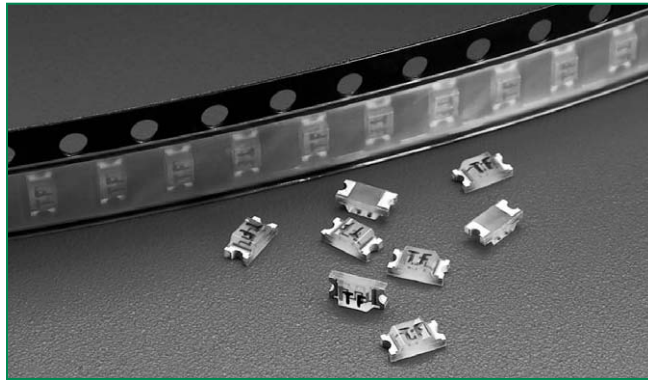




**THE DATASHEET OF**  
**043001.5WR**



## 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:

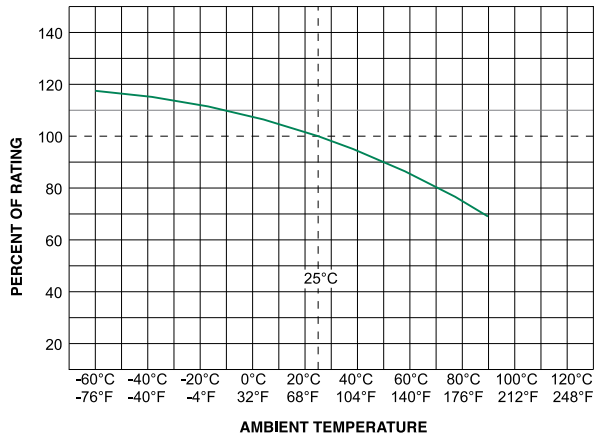
- Cell phones
- Battery packs
- Digital cameras
- DVD players
- Hard disk drives.

### Electrical Specifications by Item

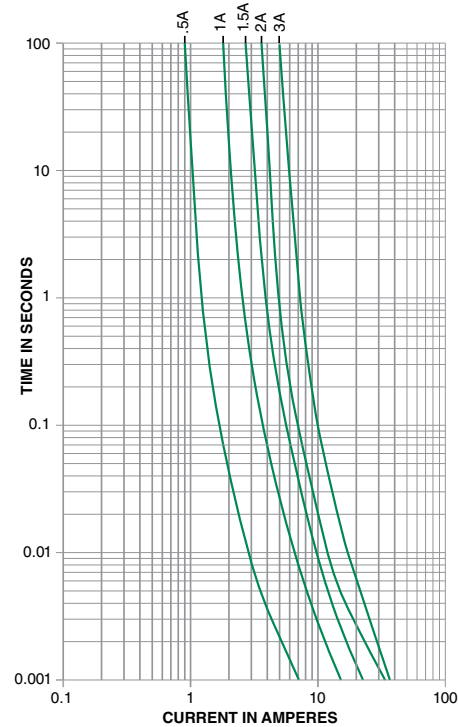
| Ampere Rating (A) | Amp Code | Max Voltage Rating (V) | Interrupting Rating      | Nominal Cold Resistance (Ohms) | Nominal Melting I <sup>2</sup> t (A <sup>2</sup> sec) | Agency Approvals  |   |
|-------------------|----------|------------------------|--------------------------|--------------------------------|---|---|---|
|                   |          |                        |                          |                                |   |  |  |
| 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

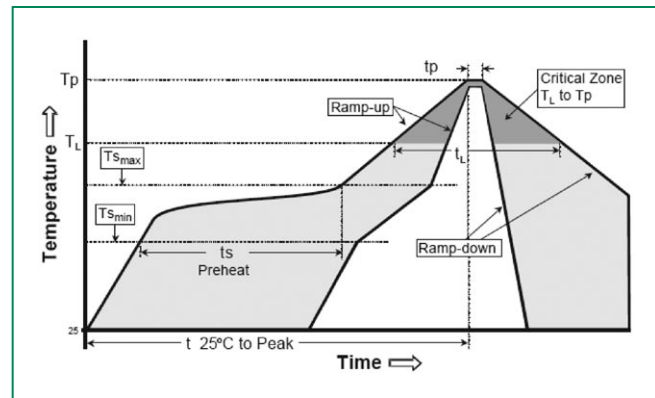


### Average Time Current Curves



### 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                   |

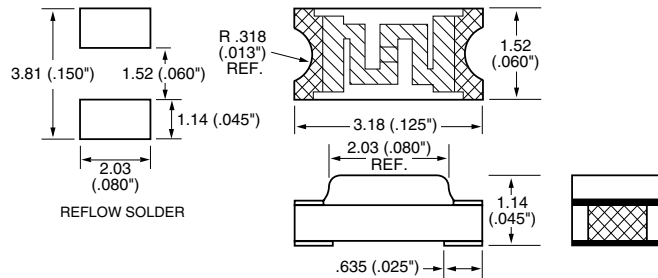


## Product Characteristics

|                              |  |
|------------------------------|--|
| <b>Materials</b>             | <b>Body:</b> Epoxy Substrate<br><b>Terminations:</b> 95% Tin / 5% Lead over Nickel over Copper<br><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  |

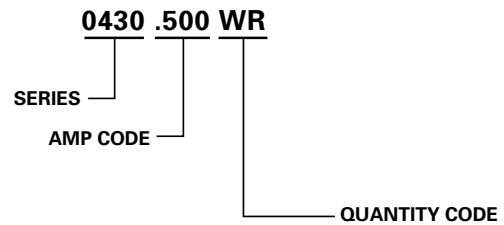
## Dimensions



## 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                        |

## Looking for pricing, stock, or lifecycle information?

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