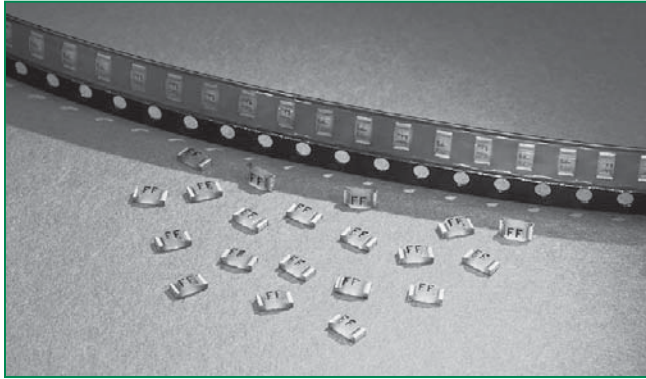


RoHS  **429 Series Fuse**



Description



The 429 Series Fast-Acting SMF 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.

This series is 100% lead-free and meets the requirements of the RoHS directive.

Features

- RoHS compliant and Lead-Free 7A device available-add 'L' suffix to catalog number
- **For new designs up to 5A please consult the 433 or 466 Series**

Agency Approvals

AGENCY	AGENCY FILE NUMBER	AMPERE RANGE
	E10480	125MA - 7A
	LR29862	125MA - 7A

Applications



Secondary protection for space constrained applications such as:

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

Electrical Characteristics for Series

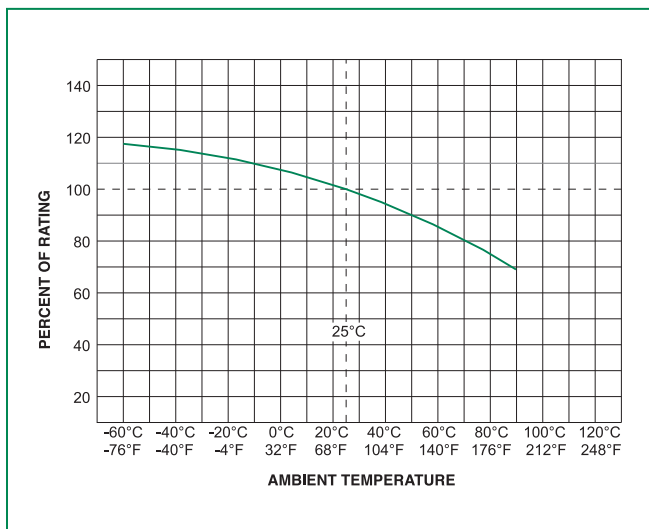
% of Ampere Rating	Opening Time at 25°C
100%	4 hours, Minimum
200%	5 sec., Maximum
300%	0.2 sec., Maximum

Electrical Specifications by Item

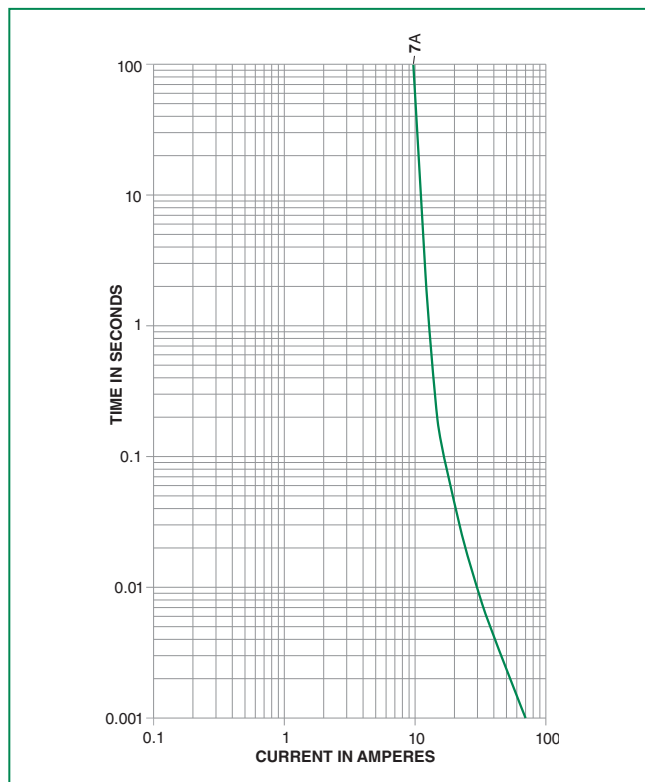
Ampere Rating (A)	Amp Code	Max Voltage Rating (V)	Interrupting Rating	Nominal Cold Resistance (Ohms)	Nominal Melting I ² t (A ² sec)	Agency Approvals	
							
7.00	007.	24	35 amperes @ voltage, VAC/VDC	0.00925	3.6000	x	x
7.00	007.	24		0.00925	3.6000	x	x

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

Temperature Derating Curve

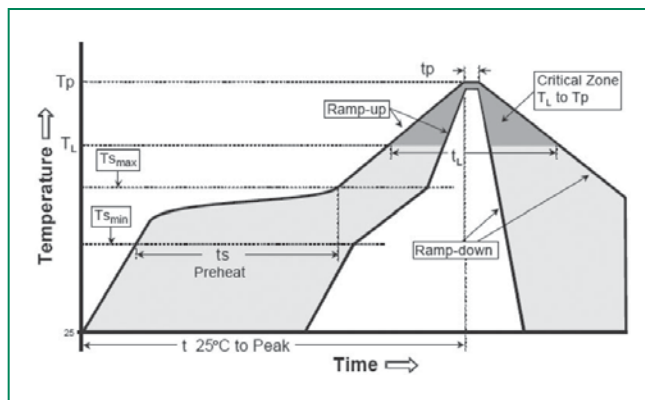


Average Time Current Curves



Soldering Parameters

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 ^{+0/-5} °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	



Wave Soldering	260°C, 10 seconds max.
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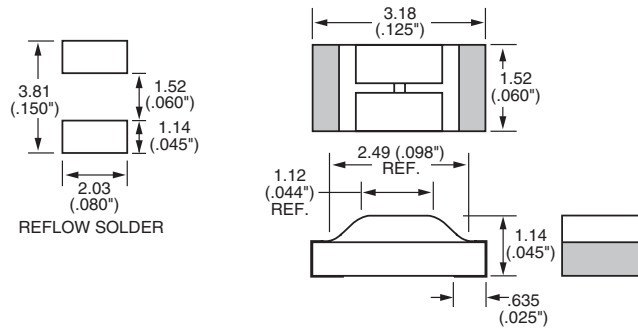
Product Characteristics

Materials	Body: Epoxy Substrate Terminations - Standard Device (429): 95% Tin / 5% Lead over Nickel over Copper Terminations, RoHS Compliant Device (429L): 100% Tin over Nickel over Copper Element Cover Coat: Conformal Coating NOTE: Do not use alcohol-based cleaners or solvents with 429 Series Thin-Film Fuses as it may damage the coating.
Operating Temperature	- 55°C to 90°C. Consult temperature derating chart. For operation above 90°C contact Littelfuse.
Thermal Shock	Withstands 5 cycles of - 55°C to 125°C

Humidity	MIL-STD-202F, Method 103B Condition D
Vibration	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.
Insulation Resistance (After Opening)	Greater than 10,000 ohms
Resistance to Soldering Heat	MIL-STD-202G, Method 210F, Condition D

Dimensions

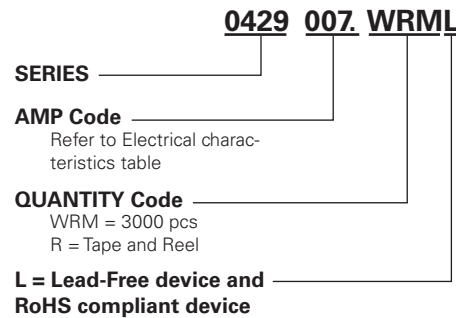
RECOMMENDED PAD LAYOUTS



Part Marking System

Series	Marking Code
429	FU
429L	7

Part Numbering System



Example:
 1.5 amp product is 0429 **01.5** WRML
 (7 amp product shown above).

Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code
Tape & Reel – 8mm tape	EIA RS-481-1 (IEC 286, part 3)	3000	WRM

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Littelfuse:](#)

[04291.75WRM](#) [0429.500WRM](#) [0429003.WRM](#) [0429005.WRM](#) [04291.25WRM](#) [042901.5WRM](#) [0429002.WRM](#)
[0429.200WRM](#) [0429.250WRM](#) [0429.750WRM](#) [0429001.WRM](#) [0429.125WRM](#) [0429.375WRM](#)