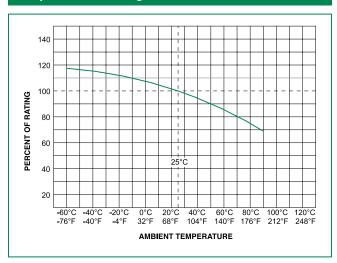


# **Temperature Re-rating Curve**



#### Note:

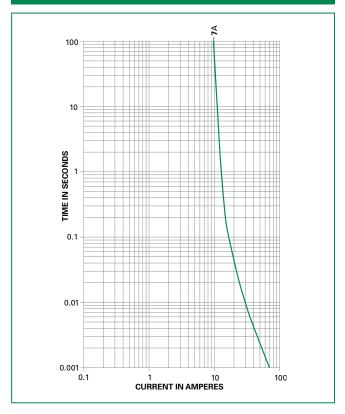
 Rerating depicted in this curve is in addition to the standard derating of 25% for continuous operation.

#### Example

For continuous operation at 70 degrees celsius, the fuse should be derated as follows: I = (0.75)(0.80)I  $_{\rm RAT}$  = (0.60)I  $_{\rm RAT}$ 

The temperature derating curve represents the nominal conditions. For questions about temperature derating curve, please consult Littelfuse technical support for assistance.

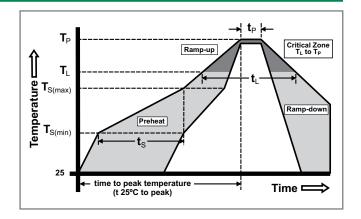
# **Average Time Current Curves**



# **Soldering Parameters**

Reflow Condition		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 – 180 secs	
Average ramp up rate (Liquidus Temp (T <sub>L</sub> ) to peak		5°C/second max	
T <sub>S(max)</sub> to T <sub>L</sub> - Ramp-up Rate		5°C/second max	
Reflow	-Temperature (T <sub>L</sub> ) (Liquidus)	217°C	
	-Temperature (t <sub>L</sub> )	60 – 150 seconds	
PeakTemp	perature (T <sub>P</sub> )	250+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	





© 2015 Littelfuse, Inc.
Specifications are subject to change without notice.
Revised: 04/30/15





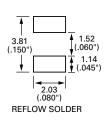
# Product Characteristics

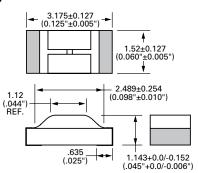
Materials	Body: Epoxy Substrate Terminations, RoHS Compliant Device (429L): 100% Tin over Nickel over Copper Element Cover Coat: Conformal Coating NOTE: Do not use alcohol-based cleaners or solvents with 429 Series Thin-Film Fuses as it may damage the coating.	
Operating Temperature	– 55°C to 90°C. Consult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

Humidity	MIL-STD-202, Method 103 Condition D		
Vibration	Withstands 10 – 55 Hz per MIL- STD-202, Method 201 and 10-2000 Hz at 20 g's per MIL-STD-202, Method 204, Condition D.		
Insulation Resistance (After Opening)	Greater than 10,000 ohms		
Resistance to Soldering Heat	MIL-STD-202, Method 210, Condition D		

# **Dimensions**

#### RECOMMENDED PAD LAYOUTS

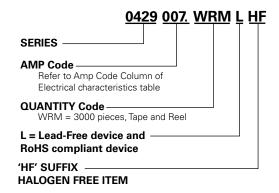




# **Part Marking System**

Series	Marking Code	
429L	7	

# **Part Numbering System**



### **Packaging**

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code
Tape & Reel – 8mm tape	EIA-481 Rev. D (IEC 60286, part 3)	3000	WRM