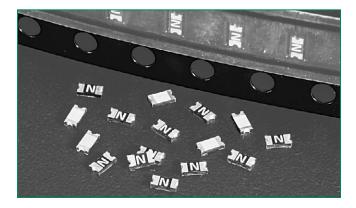


# **434 Series Fuse**







### **Agency Approvals**

Agency	Agency File Number	Ampere Range		
<b>LR</b> ®	E10480	250mA - 3A		
<b>⊕</b> ®	LR29862	250mA - 3A		

#### **Electrical Characteristics for Series**

% of Ampere Rating	OpeningTime at 25°C
100%	4 hours, Minimum
200%	5 seconds, Maximum.
300%	0.2 seconds, Maximum

### **Description**

The 434 series fast-acting surface mount fuse series is an ultra small (0603 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 467 series thin film fuse.

### **Features**

- The SlimLine 0603 fuse is an extremely small, low profile design (0603 chip size) utilizing thin-film technology to achieve precise control of electrical characteristics.
- The lower height profile produces a flat surface for improved performance in pick-and-place operations and an alternate solution for height critical applications.

### **Applications**

Secondary protection for space constrained applications such as:

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

# **Electrical Specifications by Item**

Ampere		Max		Nominal Cold	Nominal	Agency Approvals	
Rating (A)	Amp Code	Voltage Rating (V)	Interrupting Rating	terrupting Resistance		<b>.5U</b>	<b>⊕</b> ®
0.250	.250	32		0.3750	0.0030	Х	Х
0.375	.375	32	50A @32 V AC/DC	0.2650	0.0053	Х	X
0.500	.500	32		0.1903	0.0087	Х	Х
0.680	.680	32		0.1250	0.0109	Х	Х
0.750	.750	32		0.1140	0.0171	Х	Х
1.00	001.	32		0.0720	0.0212	Х	Х
1.25	1.25	32		0.0540	0.0320	Х	Х
1.50	01.5	32		0.0480	0.0526	Х	Х
1.75	1.75	32		0.0390	0.0661	Х	Х
2.00	002.	32		0.0360	0.1040	Х	Х
2.50	02.5	32	35A @32 V AC/DC	0.0280	0.1750	Х	Х
3.00	003.	32		0.0230	0.1980	Х	Х
3.50	03.5	32		0.0190	0.2650	Х	Х
4.00	004.	32		0.0170	0.3520	Х	Х
5.00	005.	32		0.0130	1.2970	Х	Х

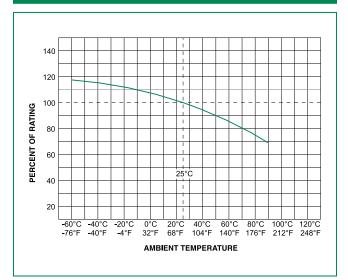
<sup>1.</sup> Measured at 10% of rated current, 25°C.

Please refer to www.littelfuse.com for the most current information

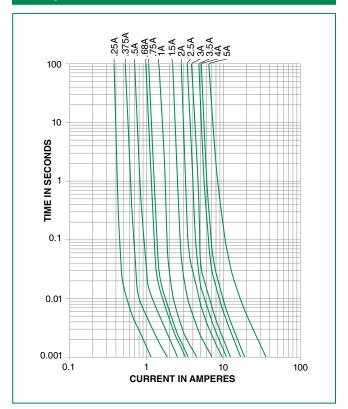
<sup>2.</sup> Measured at rated voltage.



## **Temperature Rerating Curve**

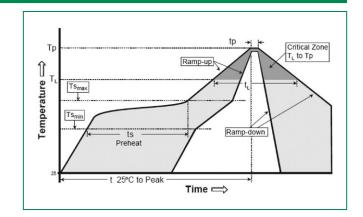


## **Average Time Current Curves**



# **Soldering Parameters - Wave Soldering**

Reflow Co	ndition	Pb – Free assembly	
	-Temperature Min (T <sub>s(min)</sub> )	150°C	
Pre Heat	-Temperature Max (T <sub>s(max)</sub> )	200°C	
	-Time (Min to Max) (t <sub>s</sub> )	60 – 180 secs	
Average ra	amp up rate (Liquidus Temp k	5°C/second max	
T <sub>S(max)</sub> to T <sub>L</sub>	- Ramp-up Rate	5°C/second max	
Poflow	-Temperature (T <sub>L</sub> ) (Liquidus)	217°C	
Reflow	-Temperature (t <sub>L</sub> )	60 – 150 seconds	
Peak Temperature (T <sub>P</sub> )		250 <sup>+0/-5</sup> °C	
Time with Temperate	in 5°C of actual peak ure (t <sub>p</sub> )	20 – 40 seconds	
Ramp-dov	vn Rate	5°C/second max	
Time 25°C	to peakTemperature (T <sub>P</sub> )	8 minutes Max.	
Do not exc	ceed	260°C	



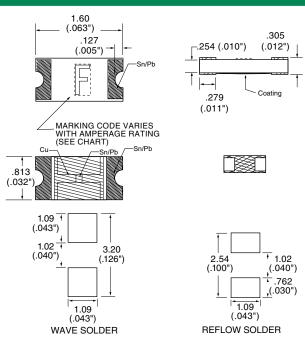


## **Product Characteristics**

Materials	Body: Epoxy Substrate Terminations: 100% Tin over Nickel over Copper Element Cover Coat: Conformal Coating
Operating Temperature	– 55°C to 90°C. Consult temperature rerating curve chart. For operation above 90°C contact Littelfuse.
Humidity	MIL-STD-202F Method 103B Condition D

Thermal Shock	Withstands 5 cycles of – 55°C to 125°C		
Vibration	Per MIL-STD-202F		
Insulation Resistance (After Opening)	Greater than 10,000 ohms		
Resistance to Soldering Heat	Withstands 60 seconds above 200°C and up to 260°C, maximum		

### **Dimensions**



# **Part Marking**

Amp Code	Marking Code
.250	D
.375	E
.500	F
.680	X
.750	G
001.	Н
1.25	J
01.5	K
1.75	L
002.	N
02.5	0
003.	Р
03.5	R
004.	S
005.	Т

## **Part Numbering System**



# **Packaging**

Packaging Option	Packaging Specification	Quantity & Packaging Code	
8mm Tape and Reel	EIA RS-481-2 (IEC 286, part 3)	5000	NR