

881 Series

High-Current SMD Fuse



Description

This high-current SMD fuse is a small, square, surface mount, AEC-Q200 qualified fuse that is designed as supplemental overcurrent protection for high-current circuits in various applications.

Features & Benefits

- Heat resistant plastic body, UL 94 V-0
- Low voltage drop
- High Reliability Solderless Fuse
- High pulse resistance
- Compatible with lead-free solders and higher temperature profiles
- Halogen-free and RoHS compliant
- UL Recognized to UL/CSA/NMX 248-1
- CE Mark indicates compliance with Low-Voltage and RoHS Directives
- Conforms to IEC/EN 60127-1 and IEC/EN 60127-7
- AEC-Q200 Qualified

Additional Information



Resources



Accessories



Samples

Applications

- Blade Servers
- Routers
- High-power Battery Systems
- Power Factor Correction (PFC) in high wattage power supplies
- Power Distribution Units (PDUs)

Agency Approvals

Agency	Agency File Number	Ampere Range
cULus	E71611	60 A – 125A
△	J50501628	60 A – 125A

Electrical Characteristics for Series

% of Ampere Rating	Opening Time
100%	1 Hour, Min.
200%	60 Seconds, Max.

Electrical Specifications by Item

Ampere Rating (A)	Amp Code	Max Voltage Rating (V)	Interrupting Rating***	Nominal Cold Resistance (mOhms)	Nominal Voltage Drop * (mV)	Nominal Melting ** I ² t (A ² sec)	Agency Approvals	
							cULus	△
60	060.	115VDC	1500 A@75 VDC 1000 A@100 VDC 500 A@115 VDC 6000 A@24 VDC 350 A@125 VDC	0.8	75	1050	X	X
70	070.	100VDC	1500 A@75 VDC 1000 A@100 VDC 6000 A@24 VDC 350 A@125 VDC	0.74	85	1250	X	X
80	080.			0.56	80	3300	X	X
90	090.			0.54	85	4300	X	X
100	100.			0.45	80	6900	X	X
125	125.	75 VDC	1500 A @75 VDC	0.43	85	7450	X	X

* Nominal Voltage Drop measured at 100% rated Current.

** Nominal Melting I²t measured at 1500A.

*** Interrupting Rating may differ based on Agency Approval. See Agency Approval certificate for more details.

881 Series

High-Current SMD Fuse

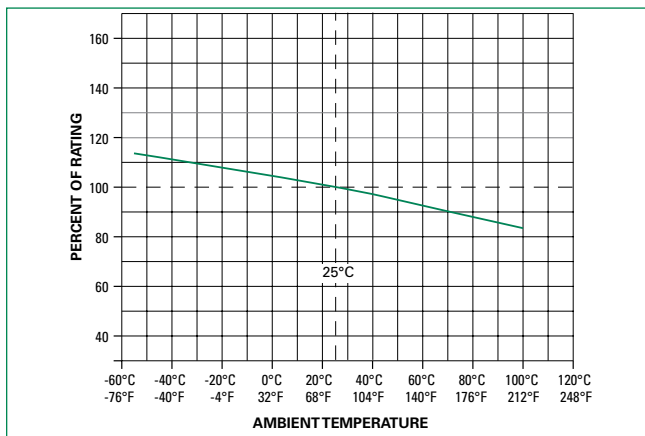
Thermal Characteristics

Ampere Rating I_n (A)	Typical Case Temperature Rise (°C) *		
	@ 50% I_n	@ 75% I_n	@ 100% I_n
60	14	35	60
70	15	37	70
80	16	39	85
90	19	49	105
100	23	53	120
125.**	34	58	90

* Typical values based on tests conducted with fuse mounted on FR-4 circuit board of 0.062" (1.6 mm) thickness with 6 oz. (210 μm) Cu.

** 125 A based on tests conducted with fuse mounted on FR4 circuit board of 0.062" (1.6 mm) thickness with 10 oz. (350 μm) Cu @ rated current.

Temperature Re-rating Curve



Note:

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

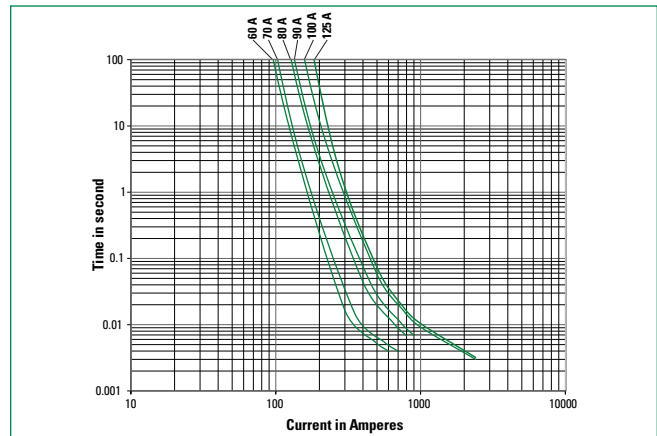
Example:

For continuous operation at 70°C, the fuse should be re-rated as follows:

$$I = (0.75)(0.90)I_n = (0.675)I_n$$

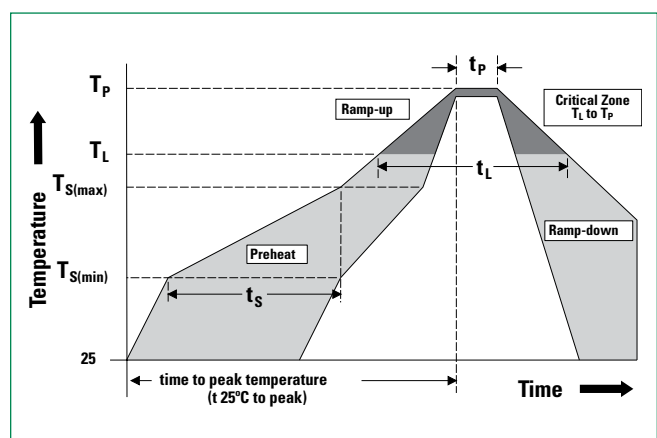
2. The temperature re-rating curve represents nominal conditions. For questions about the temperature re-rating curve, please consult Littelfuse technical support assistance.

Average Time Current Curves



Soldering Parameters

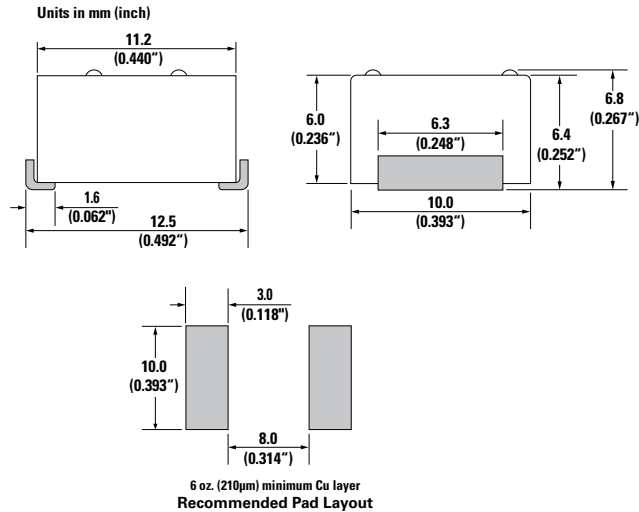
Reflow Condition	Pb - Free assembly	
Number of allowed reflow cycles	3	
Pre Heat	- Temperature Min ($T_{s(min)}$)	150 °C
	- Temperature Max ($T_{s(max)}$)	200 °C
	- Time (Min to Max) (t_s)	60 – 180 secs
Average ramp up rate (Liquidus Temp (T_L) to peak)	5 °C/second max.	
$T_{s(max)}$ to T_L - Ramp-up Rate	5 °C/second max.	
Reflow	- Temperature (T_L) (Liquidus)	217 °C
	- Temperature (t_L)	60 – 150 seconds
Peak Temperature (T_p)	260 ^{+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	



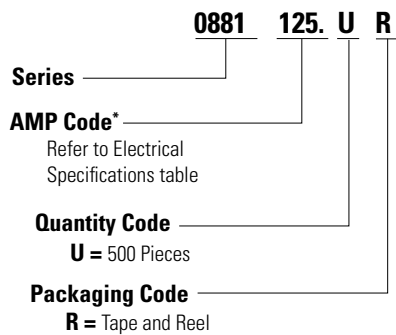
881 Series

High-Current SMD Fuse

Dimensions



Part Numbering System



***Example:**
60 amp product is 0881060.UR
(100 amp product shown above).

Product Characteristics

Materials	Body: Thermoplastic, RTI 150 °C Terminations: Tin-plated Copper
Product Marking	Brand logo, Voltage Rating, and Ampere Rating
Operating Temperature ^{1,2}	-55 °C to +100 °C with proper derating

Notes:

- Based on loading at 75% of ampere rating when mounted using recommended pad layout.
- Usage outside of stated operating temperature range requires testing in application. Maintain case temperature below 150°C in application.

Thermal Shock	MIL-STD-202 Method 107 Test Condition B (-65°C to 125°C, 5 cycles).
Moisture Resistance	MIL-STD-202 method 106 High Humidity (90-98%RH), Heat (65°C)
Vibration	MIL-STD-202, Method 201 (10-55 Hz)
Mechanical Shock	MIL-STD-202, Method 213, Test Condition I (100 G's peak for 6 milliseconds)
Resistance to Solder Heat	MIL-STD-202 Method 210 Test Condition B (10sec at 260°C)
Solderability	MIL-STD-202 Method 208
MSL Test	Level 2a J-STD-020
Salt Fog	MIL-STD-202 Method 101 Test Condition B (5% NaCL solution, 48 hours exposure)

Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code
24 mm Tape and Reel	EIA-481 Rev. D (IEC 60286-3)	500	UR

Disclaimer Notice - Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of and test each product selected for their own applications. Littelfuse products are not designed for, and may not be used in, all applications. Read complete Disclaimer Notice at <http://www.littelfuse.com/disclaimer-electronics>.

单击下面可查看定价，库存，交付和生命周期等信息

[>>Littelfuse\(美国力特\)](#)