

## 485 Series Fuse (Not Recommended for new Design)



### Agency Approvals

Agency	Agency File Number	Ampere Rating
	E10480	1A - 3.15A
	29862	1A - 3.15A

### Electrical Characteristics for Series

% of Ampere Rating	Opening Time at 25°C
100%	4 hours, Minimum
200%	60 seconds, Maximum

### Description

The 485 Nano<sup>2</sup>® Fuse Series is a small, fast-acting, surface mount ceramic fuse rated at a remarkable 600VDC at its small size and with 100A breaking capacity. It is primarily designed for circuit protection in high energy applications. This product is fully compatible with lead-free solder alloys and higher temperature profiles associated with lead-free assembly.

### Features

- Fast-Acting / Surface mount high fuse for high voltage (up to 600VDC) applications.
- Fully compatible with lead-free solder alloys and higher temperature profiles associated with lead-free assembly.
- Relatively high breaking capacity at 100A.
- RoHS compliant / Halogen Free
- Rating – 1 - 3.15 Amperes.

### Applications

- PC server and Telecom systems
- LCD TV inverter boards DC input protection
- Uninterruptible Power Supply (UPS) / 3-Phase Power Supplies
- 380VDC server / lighting in data center

### Additional Information



**Datasheet**



**Resources**



**Samples**

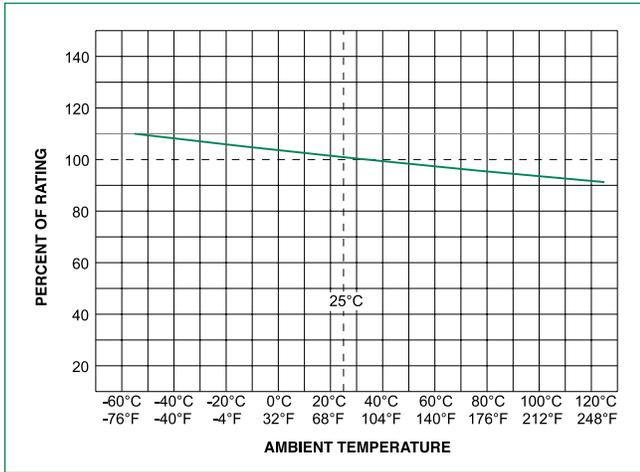
### Electrical Specifications by Item

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	
							
1.00	001.	600	100A@600VDC, 100A@250VAC	0.264	0.3044	X	X
1.50	01.5	600		0.123	0.3917	X	X
2.00	002.	600		0.0744	0.8962	X	X
2.50	02.5	600		0.0583	1.4921	X	X
3.15	3.15	600		0.0395	3.304	X	X

**Notes:**

1. Cold resistance measured at less than 10% of rated current at 23°C.
2. Agency Approval Table Key: X=Approved or Certified, P=Pending and Blank=Not Approved.
3. I<sup>2</sup>t values stated for 8 msec opening time.

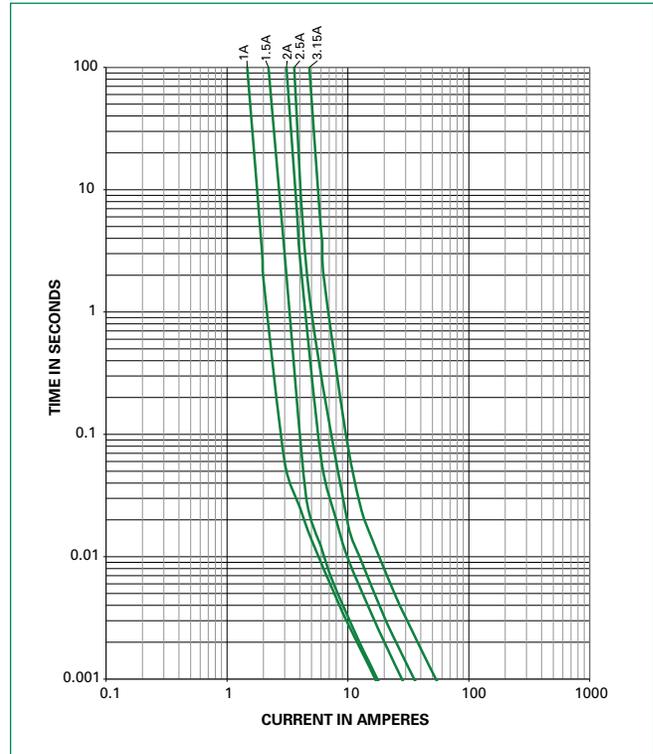
**Temperature Re-rating Curve**



Note:

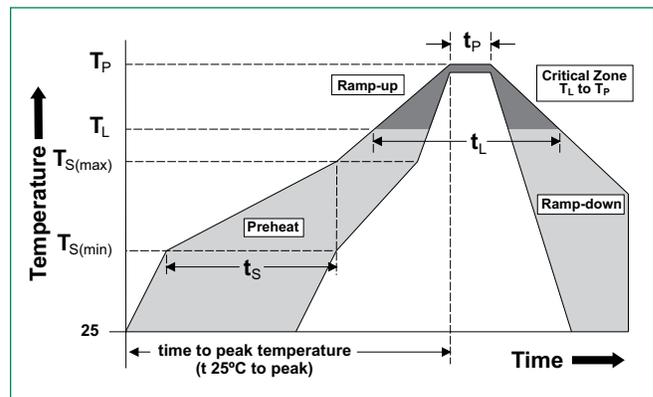
1. Rerating depicted in this curve is in addition to the standard derating of 25% for continuous operation.

**Average Time Current Curves**



**Soldering Parameters - Reflow Soldering**

<b>Reflow Condition</b>		Pb – Free Assembly
<b>Pre Heat</b>	- Temperature Min ( $T_{s(min)}$ )	150°C
	- Temperature Max ( $T_{s(max)}$ )	200°C
	- Time (Min to Max) ( $t_s$ )	60 – 180 ses
<b>Average Ramp-up Rate (Liquidus Temp (<math>T_L</math>) to peak)</b>		5°C/second max.
<b><math>T_{s(max)}</math> to <math>T_L</math> - Ramp-up Rate</b>		5°C/second max.
<b>Reflow</b>	- Temperature ( $T_L$ ) (Liquidus)	217°C
	- Temperature ( $t_L$ )	60 – 150 seconds
<b>Peak Temperature (<math>T_p</math>)</b>		260 <sup>+0/-5</sup> °C
<b>Time within 5°C of actual peak Temperature (<math>t_p</math>)</b>		20 – 40 seconds
<b>Ramp-down Rate</b>		5°C/second max.
<b>Time 25°C to peak Temperature (<math>T_p</math>)</b>		8 minutes max.
<b>Do not exceed</b>		260°C

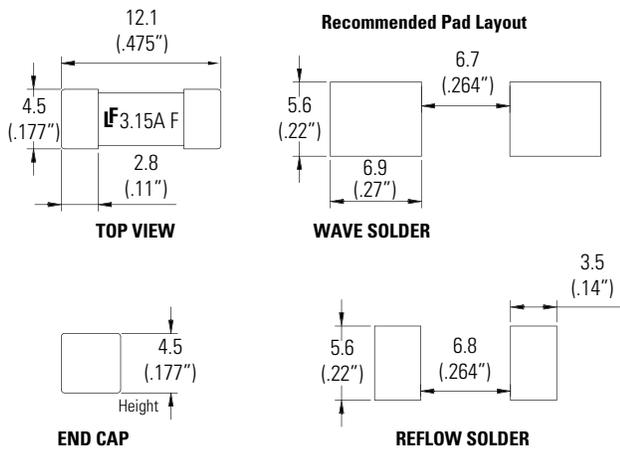


### Product Characteristics

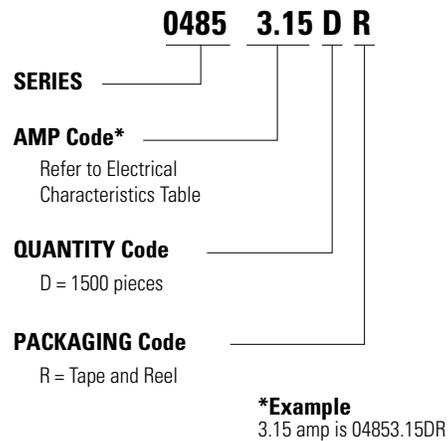
<b>Material</b>	Body: Ceramic Cap: Silver Plated Brass
<b>Product Marking</b>	Body: Brand Logo, Current Rating
<b>Operating Temperature</b>	-55°C to 125°C with proper derating
<b>Moisture Sensitivity Level</b>	Level 1 J-STD-020
<b>Solderability</b>	MIL-STD-202, Method 208
<b>Insulation Resistance (after Opening)</b>	MIL-STD-202, Method 302, Test Condition A (10,000 ohms, Minimum)

<b>Thermal Shock</b>	MIL-STD-202, Method 107, Test Condition B, 5 cycles, -65°C to 125°C, 15 minutes @ each extreme
<b>Mechanical Shock</b>	MIL-STD-202, Method 213, Test Condition I: Deenergized. 100G's peak amplitude, sawtooth wave 6ms duration, 3 cycles XYZ+xyz = 18 shocks
<b>Vibration</b>	MIL-STD-202, Method 201: 0.03" amplitude, 10-55 Hz in 1 min. 2 hrs. each XYZ=6hrs
<b>Moisture Resistance</b>	MIL-STD-202, Method 106, 10 cycles
<b>Salt Spray</b>	MIL-STD-202, Method 101, Test Condition B (48hrs)
<b>Resistance to Soldering Heat</b>	MIL-STD-202, Method 210, Test Condition B (10 sec at 260°C)

### Dimensions



### Part Numbering System



### Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Option Code
24mm Tape and Reel	EIA-RS 481-1, (IEC 286, Part 3)	1500	DR