

485 Series Fuse









Agency Approvals			
Agency	Agency File Number	Ampere Rating	
<i>7</i> U°	E10480	1A - 3.15A	
(P)	29862	1A - 3.15A	

Electrical Characteristics for Series

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

Description

The 485 Nano^{2®} 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 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
- LCDTV inverter boards DC input protection
- Uninterruptible Power Supply (UPS) / 3-Phase Power Supplies
- 380VDC server / lighting in data center

Additional Information







Resources



Samples

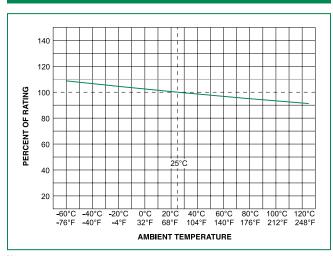
Electrical Specifications by Item

Amnere	Ampere Rating Amp Code (A)	Max Voltage Rating Interrupting (V)		Nominal Cold ng Rating Resistance (Ohms)	Nominal Melting l²t (A²sec)	Agency Approvals	
Rating			Interrupting Rating			71 °	© .
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

- 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. I2t values stated for 8 msec opening time.



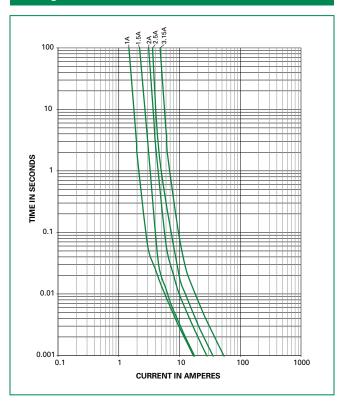
Temperature Re-rating Curve



Note:

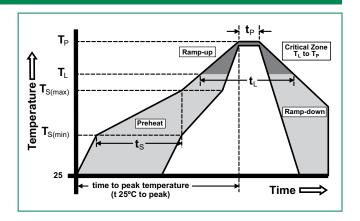
 Rerating depicted in this curve is in addition to the standard derating of 25% for continuous operation.

Average Time Current Curves



Soldering Parameters - Reflow Soldering

Reflow Condition		Pb – Free Assembly	
	-Temperature Min (T _{s(min)})	150°C	
Pre Heat	-Temperature Max (T _{s(max)})	200°C	
	-Time (Min to Max) (t _s)	60 – 180 ses	
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	
PeakTemperature (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	





Product Characteristics

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

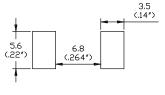
Thermal Shock	MIL-STD-202, Method 107, Test Condition B, 5 cycles, -65°C to 125°C, 15 minutes @ each extreme	
Mechanical Shock	MIL-STD-202, Method 213, Test Condition I: Deenergized. 100G's peak amplitude, sawtooth wave 6ms duration, 3 cycles XYZ+xyz = 18 shocks	
Vibratio	MIL-STD-202, Method 201: 0.03"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

Dimensions

12.1 (.475*) 4.5 (.177*) E 3.15A F

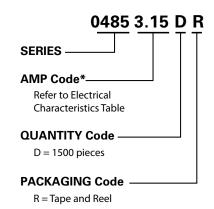
END CAP

Recommended Pad Layout



REFLOW SOLDER

Part Numbering System



*Example 3.15 amp is 04853.15DR

Packaging

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