

485 Series Fuse (Not Recommended for Automotive Applications)



Agency Approvals			
Agency	Agency File Number	Ampere Rating	
N	E10480	1A - 3.15A	
SP.	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^{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 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 - F SA 91

- RoHS-compliant and Halogen-free
- Ampere Ratings: 1A 3.15A

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





Electrical Specifications by Item

Ampere		Max Voltage			Nominal	Agency Approvals	
Rating (A)	Amp Code	Rating (V)	Interrupting Rating	Nominal Cold Resistance (Ohms)	Melting I²t (A²sec)		SF.
1.00	001.	600	100A@600VDC, 100A@250VAC	0.264	0.3044	Х	Х
1.50	01.5	600		0.123	0.3917	Х	Х
2.00	002.	600		0.0744	0.8962	Х	Х
2.50	02.5	600		0.0583	1.4921	Х	Х
3.15	3.15	600		0.0395	3.304	Х	Х

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. I²t 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

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	
Peak Temperature (T _P)		260+0/-5 °C	
Time within	Time within 5°C of actual peak Temperature (t _p)		
Ramp-down Rate		5°C/second max.	
Time 25°C to peak Temperature (T _P)		8 minutes max.	
Do not exce	ed	260°C	





Product Characteristics

Material	Body: Ceramic Cap: Silver Plated Brass	
Product Marking	Body: Brand Logo, Current Rating	
Operating Temperature	-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	MILSTD-202, Method 107, Test Condition B, 5 cycles, -65°C to 125°C, 15 minutes @ each extreme	
Mechanical Shock	MILSTD-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 Soldering Heat	MIL-STD-202, Method 210, Test Condition B (10 sec at 260°C)	

Dimensions



Part Numbering System



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

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