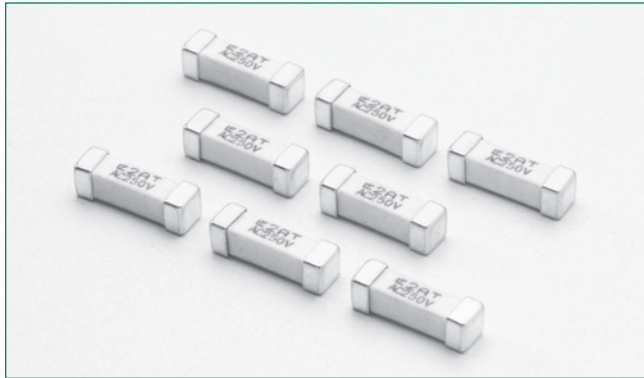


443 Series Fuse



Description

The 250V Nano²® Fuse is a small square surface mount fuse that is designed to enable compliance with the RoHS directive. This product is fully compatible with lead-free solder alloy and higher temperature profiles associated with lead-free assembly.





Features

- 250 VAC voltage rating
- Slo-Blo[®] Fuse
- Available 0.50A – 5.00A
- Halogen-free and RoHS Compliant
- Fully compatible with lead-free solder alloys and higher temperature profiles associated with lead-free assembly
- Recognized to UL/CSA/NMX 248-1 and UL/CSA/NMX 248-14
- Conforms to K60127-1 and K60127-7
- Conforms to DENAN's Appendix 3
- Conforms to IEC/EN 60127-1 and IEC/EN 60127-7

Applications

- AC/DC power adaptor
- Telecom equipment system power
- Portable system built-in AC/DC converter
- Lighting System
- LED Lighting

Agency Approvals

Agency	Agency File Number	Ampere Range
	E10480	0.500A - 5.00A
	SU05024 -14004 SU05024 -14003 SU05024 -14002	0.500A - 0.750A 1.00A - 2.50A 3.00A - 5.00A
	NBK290416-JP1021	1.00A – 5.00A
	R50310551	0.500A - 5.00A

Electrical Characteristics for Series

% of Ampere Rating	Opening Time
100%	4 hours, Minimum
250%	120 seconds, Maximum

Additional Information



Datasheet







Resources



Samples

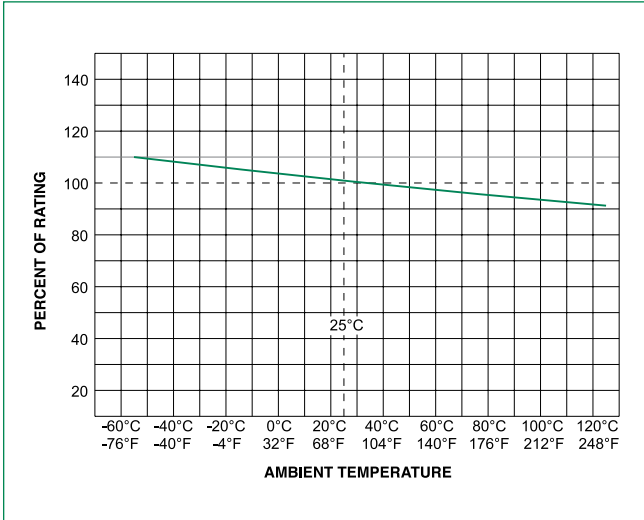
Electrical Specifications by Item

Ampere Rating (A)	Amp Code	Max Voltage Rating (V)	Interrupting Rating	Nominal Cold Resistance (Ohms)	Nominal Melting P _t (A ² sec)	Nominal Voltage Drop (mV)	Agency Approvals			
										
0.50	.500	250	50A @250VAC	0.600	1.61	448	x	x		x
0.75	.750	250		0.275	3.025	285	x	x		x
1	001.	250		0.180	10.17	234	x	x	x	x
1.50	01.5	250		0.100	14.72	196	x	x	x	x
2	002.	250		0.052	18.06	154	x	x	x	x
2.50	02.5	250		0.035	18.13	139	x	x	x	x
3	003.	250		0.028	51.44	113	x	x	x	x
3.50	03.5	250		0.019	53.14	98	x	x	x	x
4	004.	250		0.016	122.5	81	x	x	x	x
5	005.	250		0.0115	180.6	80	x	x	x	x

Notes:

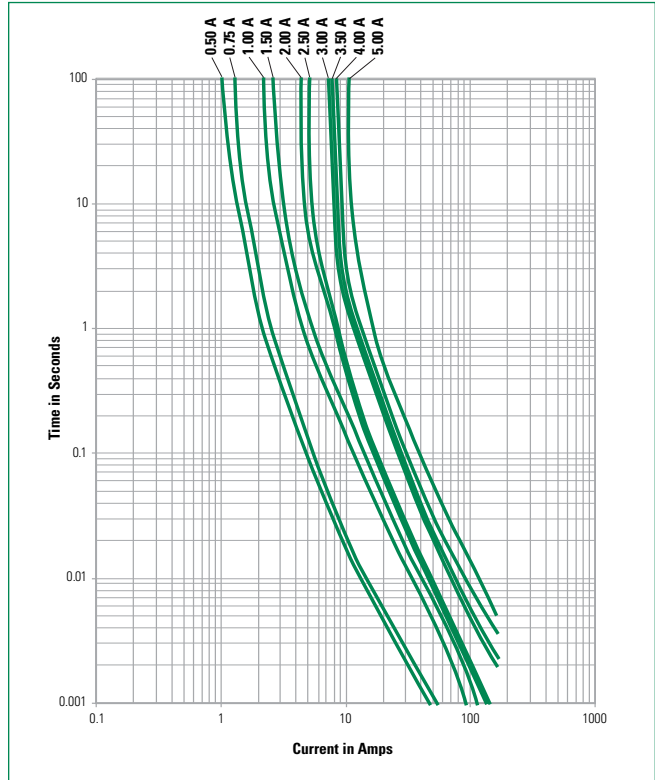
1. Cold resistance measured at less than 10% of rated current at 23°C.
2. Agency Approval Table Key: X=Approved or Certified, P=Pending and Blank=Not Approved
3. Have special electrical characteristic needs? Contact Littelfuse to learn more about application specific options.

Temperature Re-rating Curve



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

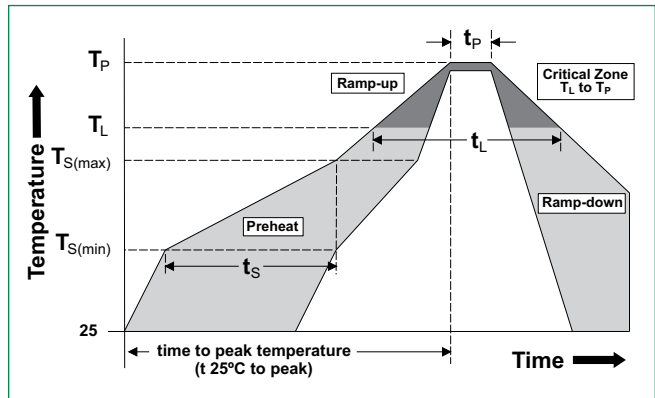
Average Time Current Curves



Soldering Parameters

Reflow Condition	Pb - Free assembly
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

Wave Soldering Parameters 260°C Peak Temperature, 3 seconds max.

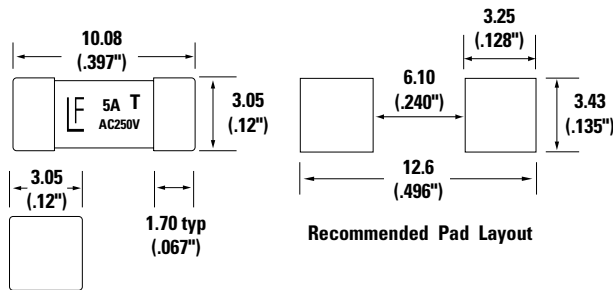


Product Characteristics

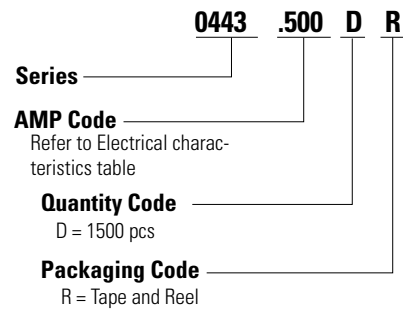
Materials	Body: Ceramic Cap: Silver Plated Brass
Product Marking	Body: Brand Logo, Current Rating Rated Voltage, and T - Characteristic "T"
Insulation Resistance (after Opening)	MIL-STD-202, Method 302, Test Condition A (10,000 ohms, Minimum)
Solderability	MIL-STD-202, Method 208
Resistance to Soldering Heat	MIL-STD-202, Method 210, Test Condition B (10 sec at 260°C)
Moisture Sensitivity Level	Level 1 J-STD-020
PCB Recommendation for Thermal Management	Min. copper layer thickness = 100µm Min. copper trace width = 10mm Alternate methods of thermal management may be used. In such cases, under normal operations, the maximum temperature of the fuse body should not exceed 80°C in a 25°C ambient environment.

Operating Temperature	-55°C to 125°C
Thermal Shock	MIL-STD-202, Method 107, Test Condition B (5 cycles -65°C to +125°C)
Vibration	MIL-STD-202, Method 201 (10-55 Hz)
Moisture Resistance	MIL-STD-202, Method 106, High Humidity (90-98%RH), Heat (65°C)
Salt Spray	MIL-STD-202, Method 101, Test Condition B
Mechanical Shock	MIL-STD-202, Method 213, Test Condition I (100 G's peak for 6 milliseconds)

Dimensions



Part Numbering System



Example:
1.5 amp product is 0443 **01.5** D R
(0.5 amp product shown above).

Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code
24mm Tape and Reel	EIA-RS 481-2 (IEC 286, part 3)	1500	DR

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