RoHS HF 465 Series Fuse



Agency Approvals

AGENCY	AGENCY FILE NUMBER	AMPERE RANGE
PS E	NBK030205-E108480B	1A - 6.3A
M	E184655A,B	250mA - 6.3A

Electrical Characteristics for Series

% of Ampere Rating	Opening Time
125%	1 hour, Minimum
200%	2 minutes, Maximum
1000%	0.01 sec., Min.; 0.1 sec., Max.

Description

The Surface Mount Nano² 250V UMF product family complies with IEC Publication IEC60127-4-Universal Modular Fuse-Links [UMF]. This IEC standard has been accepted by UL/CSA making it the first global fuse standard.

Features

- Time-Lag
- Listed to IEC 60127-4, Universal Modular Fuse-Links (UMF), 250V
- 250VAC Voltage rating
- RoHS compliant and Halogen Free

Applications

- Power supply
- Lighting system
- White goods
- Industrial equipment
- Medical equipment

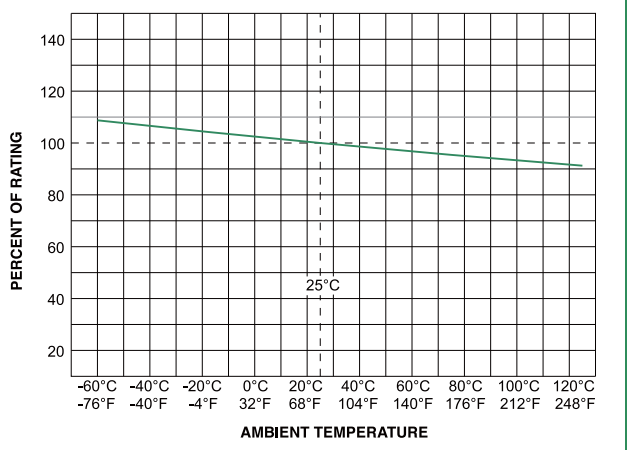
Electrical Specifications by Item

Ampere Rating (A)	Amp Code	Max Voltage Rating (V)	Interrupting Rating	Nominal Cold Resistance (Ohms)	Nominal Melting I²t (A²sec)	Agency Approvals	
						PS E	M
1.00	001.	250	100 amperes @250VAC	0.1070	2.8	x	x
1.25	1.25	250		0.0830	5.6	x	x
1.60	01.6	250		0.0560	9.2	x	x
2.00	002.	250		0.0390	14.9	x	x
2.50	02.5	250		0.0260	21.0	x	x
3.15	3.15	250		0.0210	31.7	x	x
4.00	004.	250		0.0160	48.4	x	x
5.00	005.	250		0.0130	87.0	x	x
6.30	06.3	250		0.0088	144.4	x	x

Notes:
- I^2t calculated at 8ms.
- Resistance is measured at 10% of rated current, 25°C
- For information and availability of additional ratings please contact Littelfuse

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Specifications are subject to change without notice.
Please refer to www.littelfuse.com/series/465.html for current information.

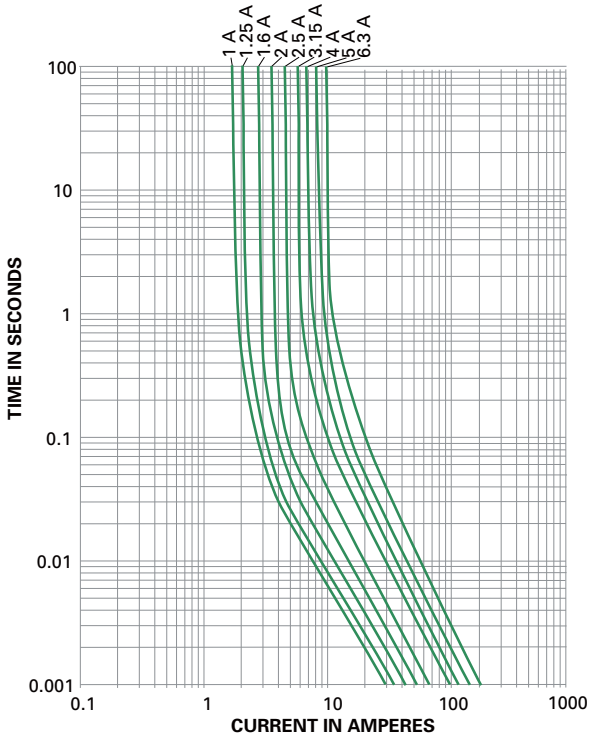
Temperature Rerating Curve



Note:

1. Derating depicted in this curve is in addition to the standard derating of 15% for continuous operation.

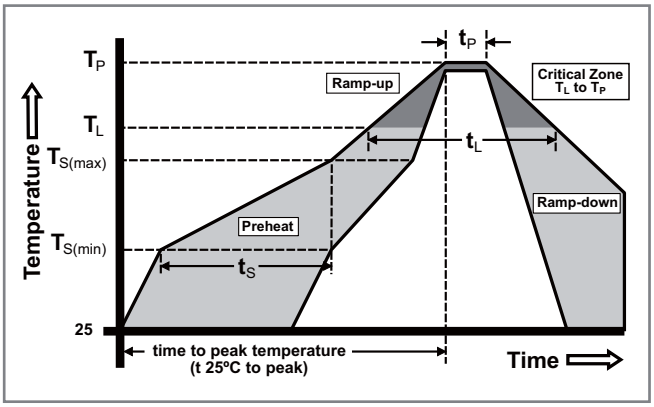
Average Time Current Curves



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 – 120 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 – 90 seconds
Peak Temperature (T_P)		$250^{+0/-5}$ °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.



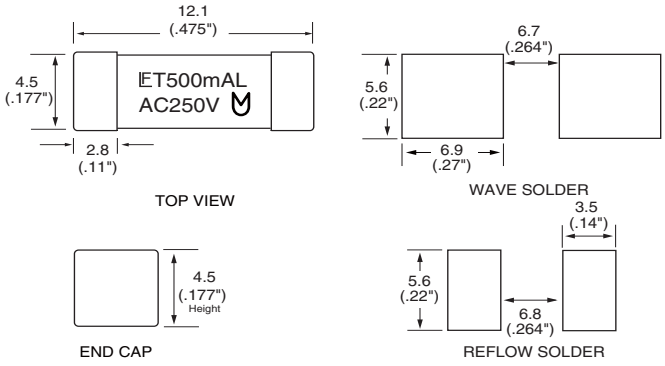
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Product Characteristics

Materials	Body: High Performance Ceramic Terminations: Silver plated brass.
Product Marketing	Brand, Ampere Rating, Voltage Rating, UMF Logo
Operating Temperature	–55°C to 125°C.
Moisture Sensitivity Level	Level 1, J-STD-020C
Solderability	IEC60127-4
Insulation Resistance (after opening	IEC 60127-4 (0.1Mohm min @ 500VDC)
Shock	MIL-STD-202, Method 213, Test Condition A

Thermal Shock	MIL-STD-202, Method 107, Test Condition B , 5 cycles, –65°C to 125°C
Mechanical Shock	MIL-STD-202, Method 213, Test Condition A
Vibration	MIL-STD-202, Method 201 (10-55 Hz)
Moisture Resistance	MIL-STD-202, Method 106, 10 cycles
Salt Spray	MIL-STD-202, Method 101, Test Condition B (48hrs)
Resistance to Soldering Heat	IEC 60127-4

Dimensions



Part Numbering System

0465 .500 D R

SERIES

AMP Code*
Refer to Electrical Characteristics table

QUANTITY Code
D = 1500 pcs

PACKAGING Code
R = Tape and Reel

***Example:**
2.5 amp product is 0465**02.5**DR
(0.5 amp product shown above).

Packaging

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

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