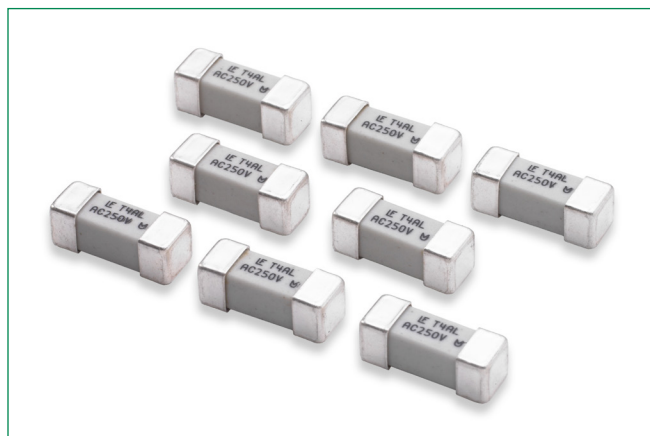


465 Series

NANO2® > 250V UMF Time Lag Fuse



Description

The Surface Mount Nano2® 250 V UMF product family complies with IEC 60127-4 which covers Universal Modular Fuse-Links [UMF]. This is an IEC standard that is accepted world wide.

Features & Benefits

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

Additional Information



Resources



Accessories



Samples

Applications

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

Agency Approvals

Agency	Agency File Number	Ampere Range
	NBK030205-E10480B	1 A - 5 A
	NBK101105-E184655	6.3 A
	E184655	0.25 A - 6.3 A
	NA	1 A - 6.3 A
	NA	1 A - 6.3 A
	E10480	1 A - 6.3 A

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.

Electrical Specifications by Item

Ampere Rating (A)	Amp Code	Max Voltage Rating (V)	Interrupting Rating	Nominal Cold Resistance (Ohms)	Nominal Melting I ² t (A ² sec)	Agency Approvals				
						UKCA	CE	PS E	UL	cULus
1.00	001.	250	100A@250VAC	0.1070	2.5	x	x	x	x	x
1.25	1.25	250		0.0830	5.6	x	x	x	x	x
1.60	01.6	250		0.0560	9.0	x	x	x	x	x
2.00	002.	250		0.0390	14.4	x	x	x	x	x
2.50	02.5	250		0.0260	19.6	x	x	x	x	x
3.15	3.15	250		0.0210	32.4	x	x	x	x	x
4.00	004.	250		0.0160	48.4	x	x	x	x	x
5.00	005.	250		0.0130	90.0	x	x	x	x	x
6.30	06.3	250		0.0088	144.4	x	x	x	x	x

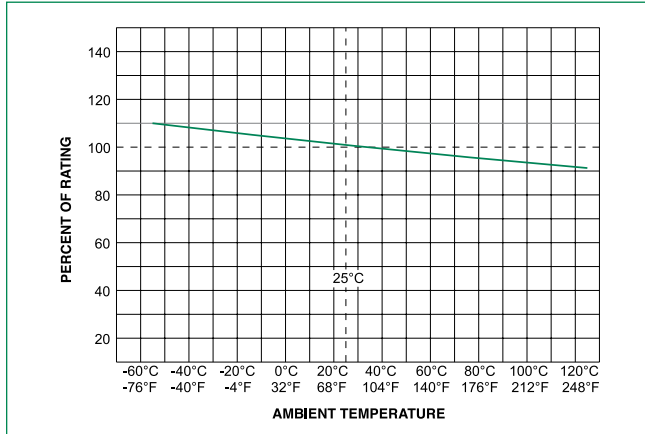
Notes:

- I²t calculated at 8ms.
- Resistance is measured at 10% of rated current, 25°C
- For information and availability of additional ratings please contact Littelfuse

465 Series

NANO2® > 250V UMF Time Lag Fuse

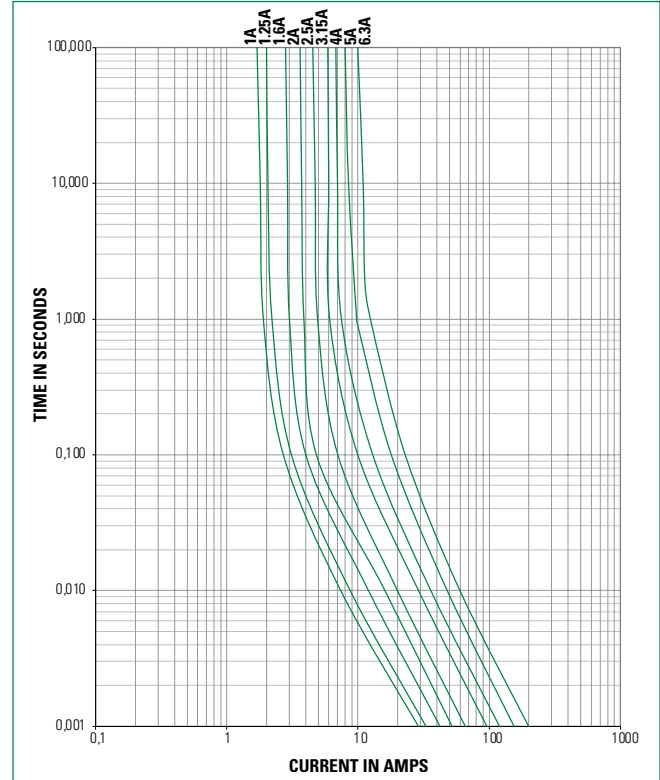
Temperature Re-rating Curve



Note:

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

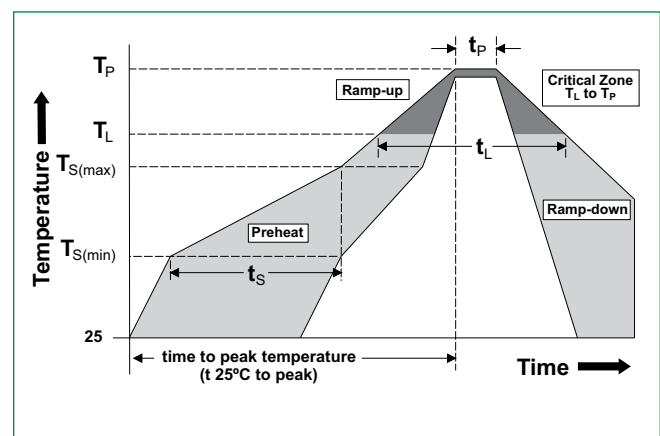
Average Time Current Curves



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 - 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 secs
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.
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465 Series

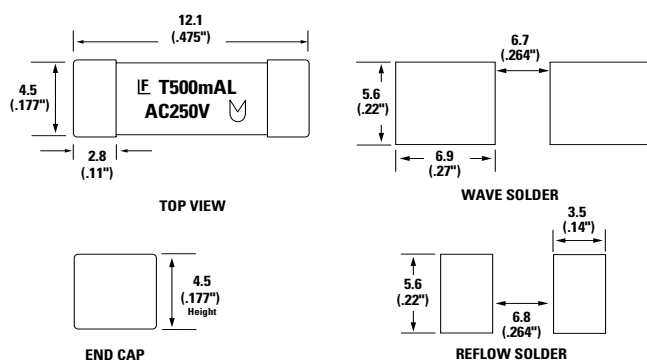
NANO2® > 250V UMF Time Lag Fuse

Product Characteristics

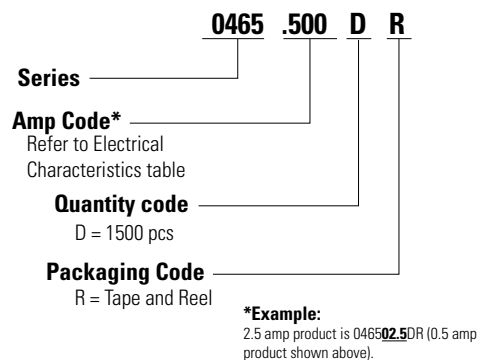
Materials	Body: High Performance Ceramic Terminations: Silver plated brass.
Product Marketing	Brand, Ampere Rating, Voltage Rating, UMF Logo
Operating Temperature	-55°C to 125°C
Moisture Sensitivity Level	J-STD-020, Level 1
Solderability	IEC 60127-4
Insulation Resistance (after opening)	IEC 60127-4 (0.1Mohm 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



Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code
24mm Tape and Reel	EIA RS-481-1 (IEC 60286-3)	1500	DR

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