

471 Series

PICO® II Time-Lag Fuse



Description

The 471 Series PICO® II Time-Lag Fuse is designed for applications that require moderate in-rush withstand and is in a space-saving subminiature package.

Features & Benefits

- Moderate in-rush withstand
- Small size
- Wide range of current ratings available (0.500A to 5A)
- RoHS compliant
- Halogen-free available
- Wide operating temperature range
- Low temperature de-rating

Web Resources



Download ECAD models, order samples, and find technical resources at www.littelfuse.com

Applications

- Flat-panel display TV
- LCD monitor
- Lighting systems
- Medical equipments
- Industrial equipments

Agency Approvals

Agency	Agency File Number	Ampere Range
	E10480	0.5A - 5A
	29862	0.5A - 5A
	NBK200416-JP1021	1A - 5A
	NA	0.5 - 5A

Electrical Characteristics

% of Ampere Rating	Opening Time
100%	4 Hours, Min.
200%	120 Seconds, Max.

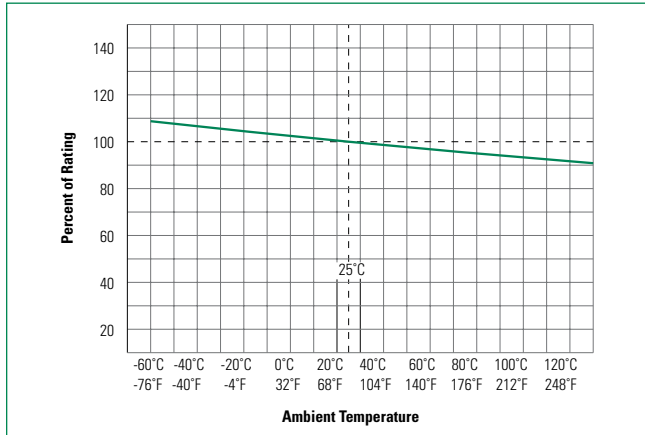
Electrical Characteristics

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			
.500	.500	125	50A@125VAC/DC	0.1890	0.159	-	X	-	X
1.00	001.	125		0.0851	0.722	X	X	X	X
1.50	01.5	125		0.0535	1.610	X	X	X	X
2.00	002.	125		0.0385	2.500	X	X	X	X
2.50	02.5	125		0.0300	4.390	X	X	X	X
3.00	003.	125		0.0231	6.960	X	X	X	X
3.50	03.5	125		0.0180	9.900	X	X	X	X
4.00	004.	125		0.0115	10.600	X	X	X	X
5.00	005.	125		0.0084	15.400	X	X	X	X

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Temperature Re-rating Curve



Note: Re-rating depicted in this curve is in addition to the standard derating of 25% for continuous operation.

Soldering Parameters

Recommended Process Parameters:

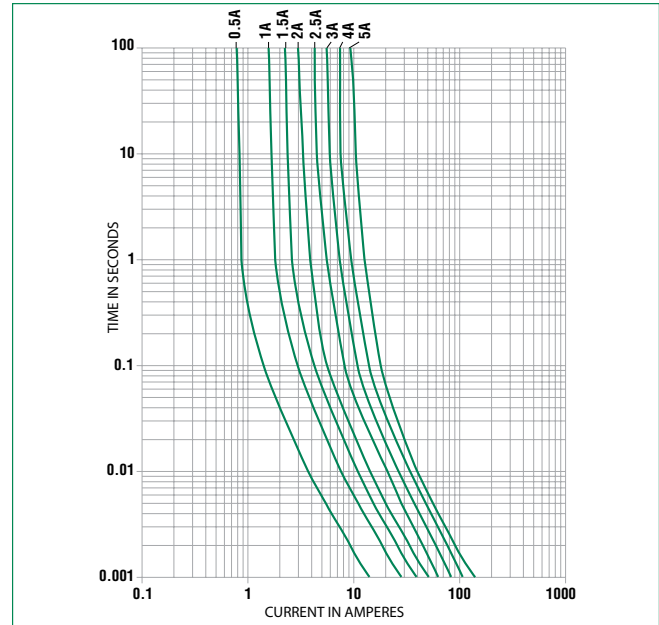
Wave Parameter	Lead-Free Recommendation
Preheat: (Depends on Flux Activation Temperature)	(Typical Industry Recommendation)
Temperature Minimum:	100°C
Temperature Maximum:	150°C
Preheat Time:	60-180 seconds
Solder Pot Temperature:	260°C Maximum
Solder Dwell Time:	2-5 seconds

Recommended Hand-Solder Parameters:

Solder Iron Temperature: 350°C +/- 5°C
Heating Time: 5 seconds max.

Note: These devices are not recommended for IR or Convection Reflow process.

Average Time Current Curves



Product Characteristics

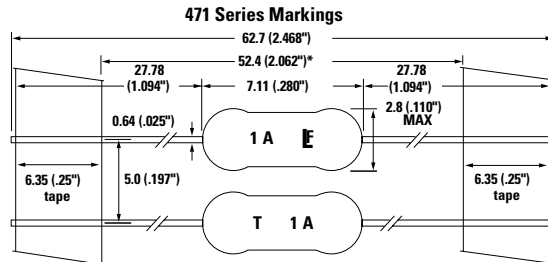
Materials	Encapsulated, Epoxy-Coated Body; Solder Coated Copper wire leads; RoHS compliant Product: Pure Tin-coated Copper wire leads
Flammability Rating	UL 94V-0
Solderability	MIL-STD-202, Method 208
Lead Pull Force	MIL-STD-202, Method 211, Test Condition A (will withstand a 7 lbs. axial pull test)

Operating Temperature	-55°C to +125°C (Consider re-rating)
Shock	MIL-STD-202, Method 213, Test Condition I (100 G's peak for 6 milliseconds)
Vibration	MIL-STD-202, Method 201 (10-55 Hz); Method 204, Test Condition C (55-2000 Hz at 10 G's Peak)
Moisture Resistance	MIL-STD-202, Method 106
Resistance to Soldering Heat	Withstands 60 seconds above 200°C and up to 260°C, maximum

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Dimensions



Part Numbering System

	0471	xxxx	N	R	T1	L
Series						
Current Rating						
Refer to Amp Code column of Electrical Characteristics Table						
Quantity						
N = 5000						
P = 2000						
M=1000						
Type of Packaging						
R = Reel						
A = Ammo Pack						
Lead Length						
T1: 52.4mm (2.062")*						
Environmental Options						
Blank = RoHS						
L = RoHS + HF						

Packaging

Packaging Option	Packaging Specification	Quantity & Packaging Code
*T1: 52.4mm (2.062") Tape and Reel	EIA 296	Please refer to available quantities above in "Part Numbering System"

Notes:

* - T1 dimension is defined as the length of the component between the two tapes. The full component length is 62.7mm (2.468").