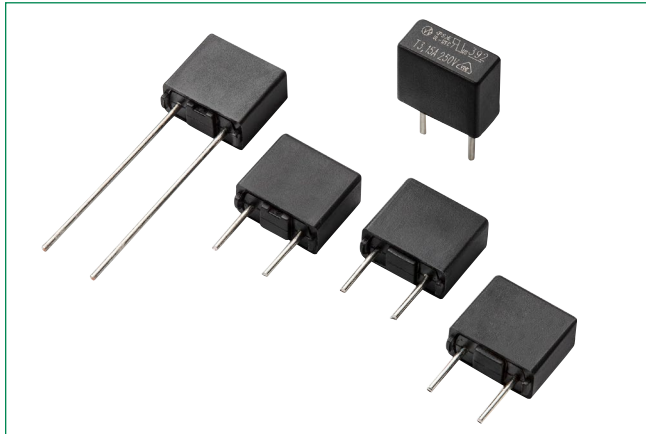


# 392 Series

## TE5 Time-Lag Fuse



### Description

The 392 Series is a TE5 Fuse. It is a time-lag fuse designed in accordance to IEC 60127-3, Standard Sheet 4.

### Features

- Reduced PCB space requirements
- Direct solderable or plug-in versions
- Internationally approved
- Low internal resistance
- Shock safe casing
- Vibration resistant
- Halogen free, Lead-free and RoHS compliant
- Red Phosphorus Free
- Conforms to EN/IEC/J/K 60127-1 and EN/IEC/J/K 60127-3
- Conforms to GB/T 9364.1 and GB/T 9364.3
- Recognized to UL/CSA/NMX 248-1 and UL/CSA/NMX 248-14

### Web Resources



Download ECAD models, order samples, and find technical resources at [www.littelfuse.com](http://www.littelfuse.com)

### Applications

- Battery Chargers
- Consumer Electronics
- Power supplies
- Industrial Controllers
- Power Adapters

### Electrical Characteristics for Series

% of Ampere Rating	Opening Time
150%	1 Hour, <b>Min.</b>
210%	120 s, <b>Max.</b>
275%	400 ms <b>Min.</b> ; 10 Sec. <b>Max.</b>
400%	150 ms <b>Min.</b> ; 3 Sec. <b>Max.</b>
1000%	20 ms <b>Min.</b> ; 150 ms <b>Max.</b>

### Agency Approvals

Agency	Agency File Number	Ampere Range
VDE	126983	0.28 A - 6.3 A*
UL US	E67006	0.28 A - 6.3 A
CE	N/A	0.28 A - 6.3 A
CCC	2020970207000069	0.5 A - 6.3 A
PS E	NBK291021-JP1021	1 A - 5 A
K	SU05024 - 7013A	0.8 A
	SU05024 - 7014B	1 A - 2.5 A
	SU05024 - 7015B	3.15 A
	SU05024 - 7016B	4 A
	SU05024 - 7017B	5 A
	SU05024 - 7018B	6.3 A

### Electrical Characteristic Specifications by Item

Rated Current	Amp Code	Voltage Rating	Breaking Capacity	Nominal Cold Resistance (Ohms) <sup>3</sup>	Voltage Drop 1.0xI <sub>N</sub> max. (mV)	Power Dissipation 1.5xI <sub>N</sub> max. (mW)	Melting Integral 10xI <sub>N</sub> max. (A <sup>2</sup> s)	Agency Approvals					
								VDE	UL US	CCC	K	CE	PS E
280 mA	280	250 V	35A@250Vac <sup>1</sup> 130A@250Vac <sup>2</sup>	0.33	115	168	0.048	x	x	-	-	x	-
500 mA	500	250 V		0.163	105	125	2.175	x	x	x	x	x	-
800 mA	800	250 V		0.096	110	280	5.12	x	x	x	x	x	-
1.0 A	1100	250 V		0.0715	115	400	8.0	x	x	x	x	x	x
1.25 A	1125	250 V		0.0569	100	500	11.95	x	x	x	x	x	x
1.6 A	1160	250 V		0.04	95	600	18.43	x	x	x	x	x	x
2.0 A	1200	250 V		0.0298	90	700	29.0	x	x	x	x	x	x
2.5 A	1250	250 V		0.024	85	750	47.81	x	x	x	x	x	x
3.15 A	1315	250 V		0.017	80	1100	78.39	x	x	x	x	x	x
4.0 A	1400	250 V		40A@250Vac <sup>1</sup> 50A@250Vac <sup>2</sup>	0.0128	75	1200	126.4	x	x	x	x	x
5.0 A	1500	250 V	50A@250Vac <sup>1,2</sup>	0.0101	70	1000	106.25	x	x	x	x	x	x
6.3 A	1630	250 V	63A@250Vac <sup>1,2</sup>	0.0077	65	1200	160.74	x	x	x	x	x	-

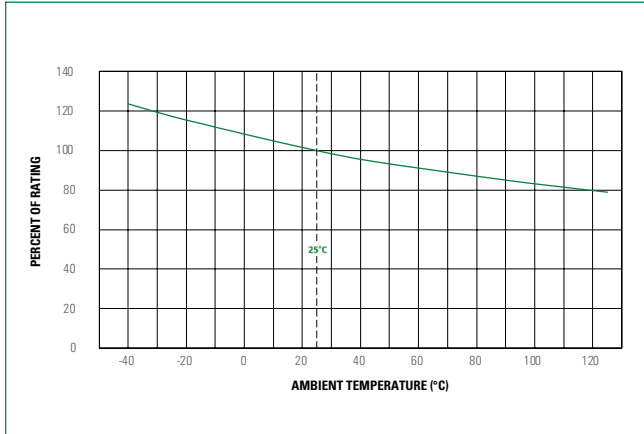
Note:  
1. Per EN/IEC/J/K 60127-1 and EN/IEC/J/K 60127-3.

2. Per UL 248-1 and UL 248-14.  
3. Resistance in measured at 10% of rated current, 25 °C.

# 392 Series

## TE5 Time-Lag Fuse

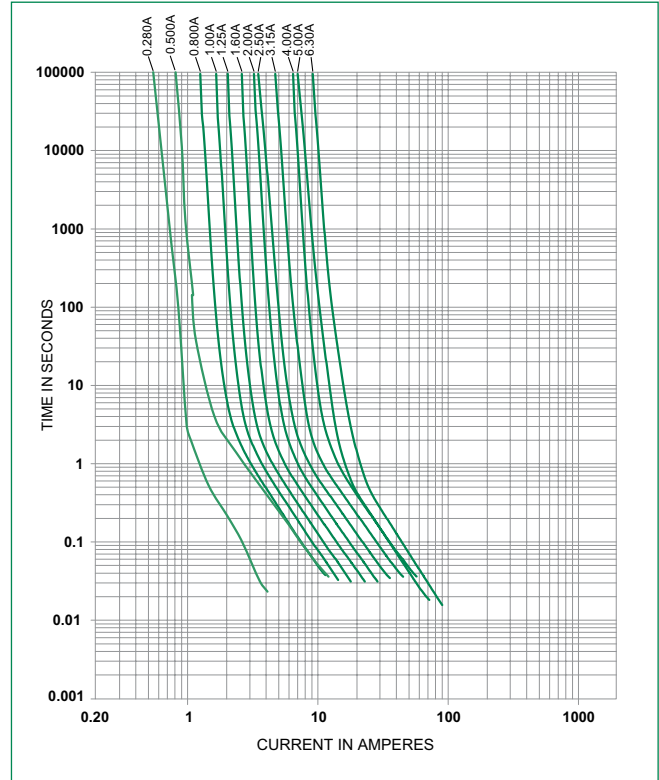
### Temperature Re-rating Curve



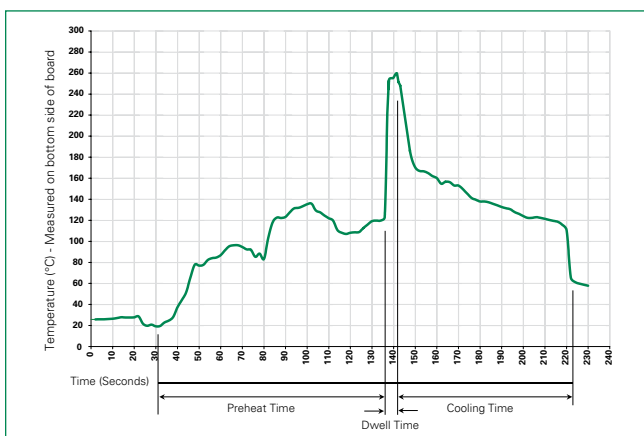
**Note:**

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

### Average Time Current Curves



### Soldering Parameters - Wave Soldering



**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.

# 392 Series

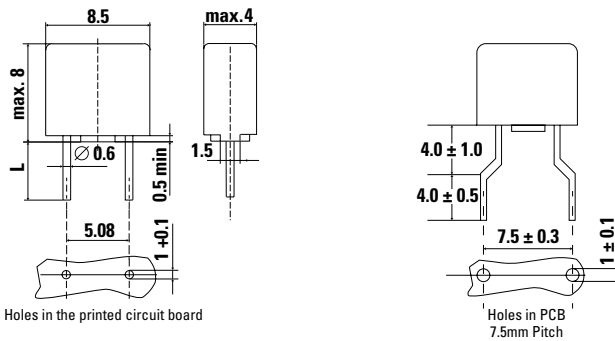
## TE5 Time-Lag Fuse

### Product Characteristics

<b>Materials</b>	Base/Cap: Thermoplastic Polyamide PA 6.6, UL 94 V-0 Round Pins: Copper, Tin-plated
<b>Lead Pull Strength</b>	10 N (IEC 60068-2-21)
<b>Solderability</b>	260 °C, ≤ 3 sec. (Wave) 350 °C, ≤ 3 sec. (Soldering iron)
<b>Soldering Heat Resistance</b>	260 °C, 10 sec. (IEC 60068-2-20) 350 °C, ≤ 3 sec. (Soldering iron)

<b>Operating Temperature</b>	-40 °C to +125 °C (Consider re-rating)
<b>Climatic Category</b>	-40 °C to +85 °C/21 days (IEC 60068-1, -2-1, -2-2, -2-78)
<b>Stock Condition</b>	+10 °C to +60 °C Relative humidity ≤ 75% yearly average, without dew, maximum value for 30 days - 95%
<b>Vibration Resistance</b>	24 cycles at 15 min. each (IEC 60068-2-6) 10 – 60 Hz at 0.75 mm amplitude 60 – 2000 Hz at 10 g acceleration

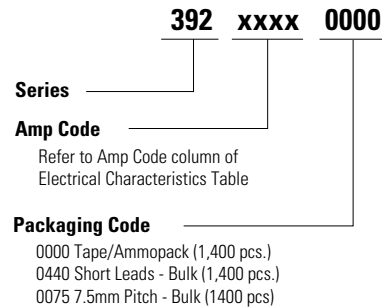
### Dimensions



Holes in the printed circuit board

Long Leads (L=18.8mm ±0.3)  
Short Leads (L=4.3mm ±0.3)

### Part Numbering System



### Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Taping Width
Tape and Ammpack	N/A	1,400	0000	N/A
Short Leads/7.5 mm Pitch	N/A	1,400	0440 & 0075	N/A

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