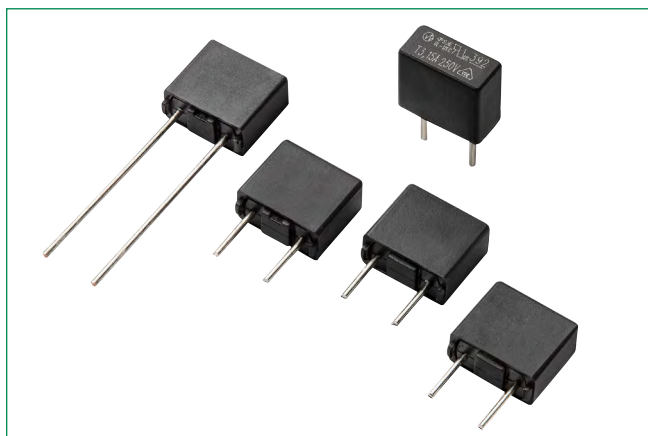


392 Series

TE5 Time-Lag Fuse



Web Resources



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

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

Applications

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

Electrical Characteristics for Series

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

Agency Approvals

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

Electrical Characteristic Specifications by Item

Rated Current	Amp Code	Voltage Rating	Breaking Capacity	Nominal Cold Resistance (Ohms) ³	Voltage Drop 1.0xI _N max. (mV)	Power Dissipation 1.5xI _N max. (mW)	Melting Integral 10xI _N max. (A²s)	Agency Approvals					
280 mA	280	250 V	35A@250Vac ¹ 130A@250Vac ²	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	40A@250Vac ¹ 50A@250Vac ²	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		0.0128	75	1200	126.4	x	x	x	x	x	x
5.0 A	1500	250 V		0.0101	70	1000	106.25	x	x	x	x	x	x
6.3 A	1630	250 V		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.

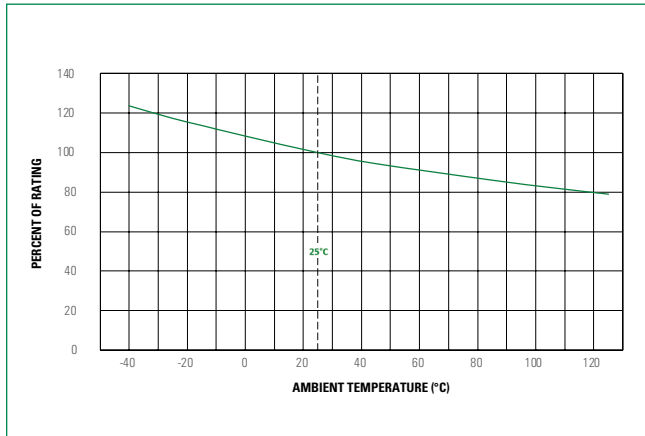
2. Per UL 248-1 and UL 248-14.

3. Resistance in measured at 10% of rated current, 25 °C.

392 Series

TE5 Time-Lag Fuse

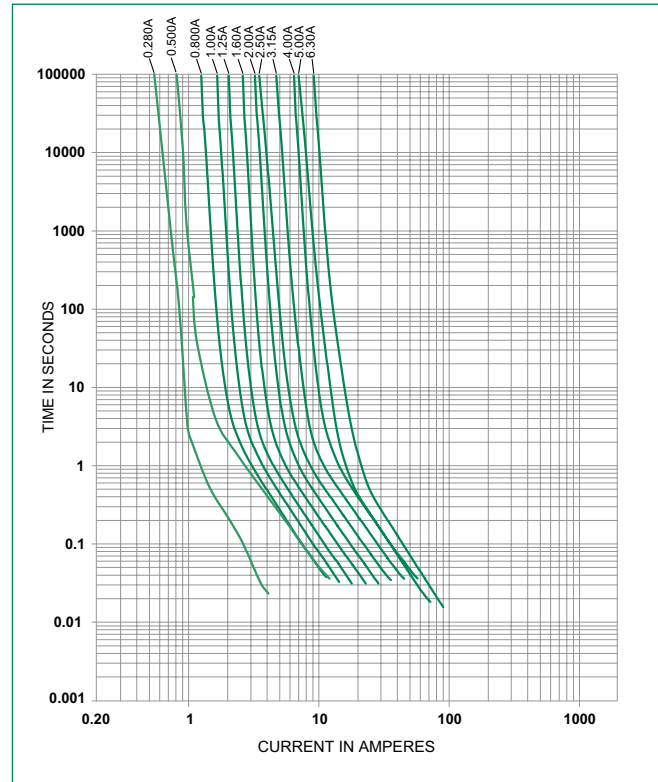
Temperature Re-rating Curve



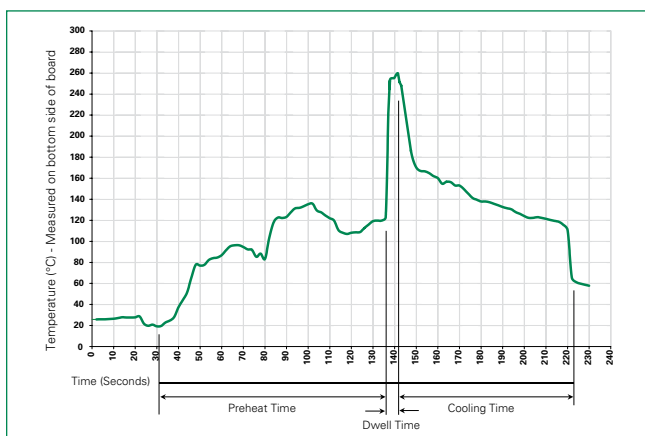
Note:

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

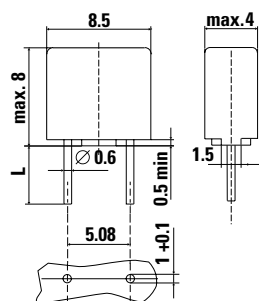
TE5 Time-Lag Fuse

Product Characteristics

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

Operating Temperature	–40 °C to +125 °C (Consider re-rating)
Climatic Category	–40 °C to +85 °C/21 days (IEC 60068-1, -2-1, -2-2, -2-78)
Stock Condition	+10 °C to +60 °C Relative humidity ≤ 75% yearly average, without dew, maximum value for 30 days - 95%
Vibration Resistance	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

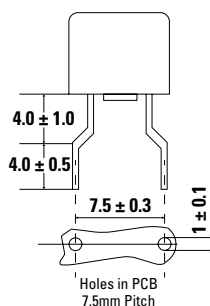
Dimensions



Holes in the printed circuit board

Long Leads (L=18.8mm ±0.3)

Short Leads (L=4.3mm ±0.3)



Part Numbering System

	392	xxxx	0000
Series			
Amp Code			
	Refer to Amp Code column of Electrical Characteristics Table		
Packaging Code			
	0000 Tape/Ampmopack (1,400 pcs.) 0440 Short Leads - Bulk (1,400 pcs.) 0075 7.5mm Pitch - Bulk (1400 pcs)		

Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Taping Width
Tape and Ammopack	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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