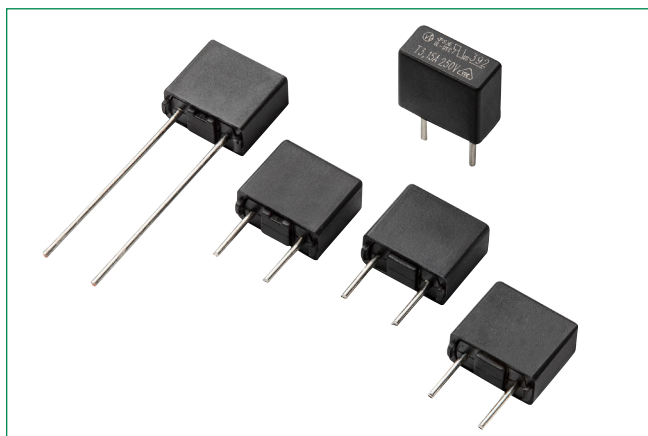


392 Series

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

Additional Information



Resources



Accessories



Samples

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.

Applications

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

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 - 7013A SU05024 - 7014B SU05024 - 7015B SU05024 - 7016B SU05024 - 7017B SU05024 - 7018B	0.8 A 1 A - 2.5 A 3.15 A 4 A 5 A 6.3 A

*Red Phosphorus Free from 0.28A to 5A.

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. (A ² s)	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.

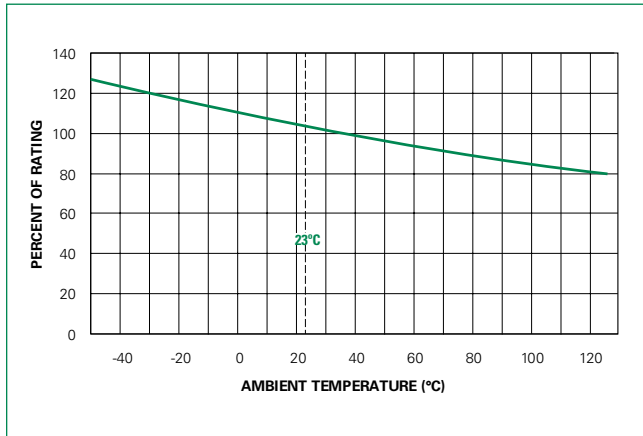
2. Per UL 248-1 and UL 248-14.

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

392 Series

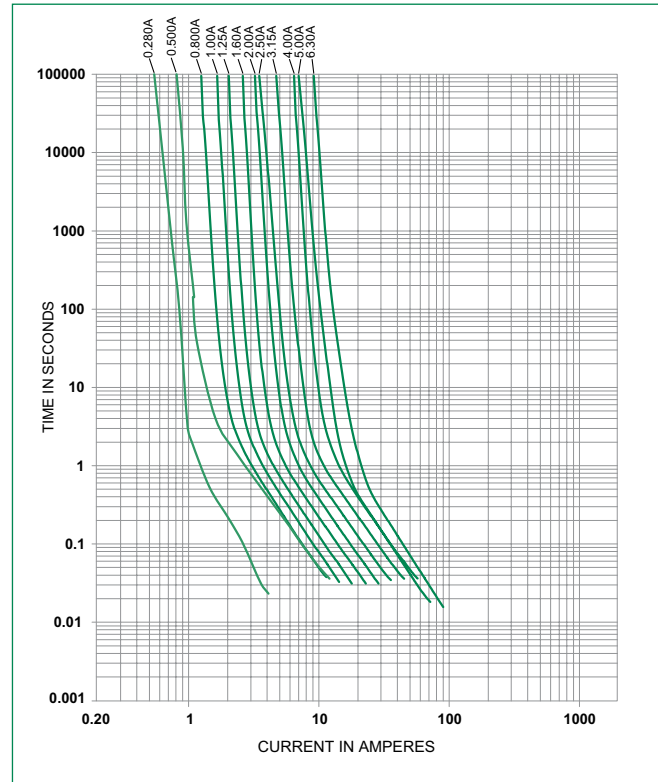
TE5 Time-Lag Fuse

Temperature Re-rating Curve

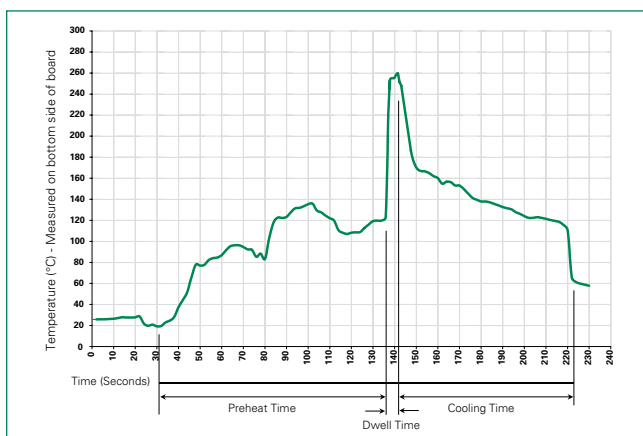

Note:

1. Derating 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

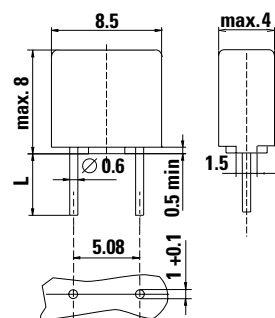
TE5 Time-Lag Fuse

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/Ammopack (1,400 pcs.) 0440 Short Leads - Bulk (1,400 pcs.)		

Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Taping Width
Tape and Ammopack	N/A	1,400	0000	N/A
Short Leads	N/A	1,400	0440	N/A

Disclaimer Notice - Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of and test each product selected for their own applications. Littelfuse products are not designed for, and may not be used in, all applications. Read complete Disclaimer Notice at: www.littelfuse.com/disclaimer-electronics.