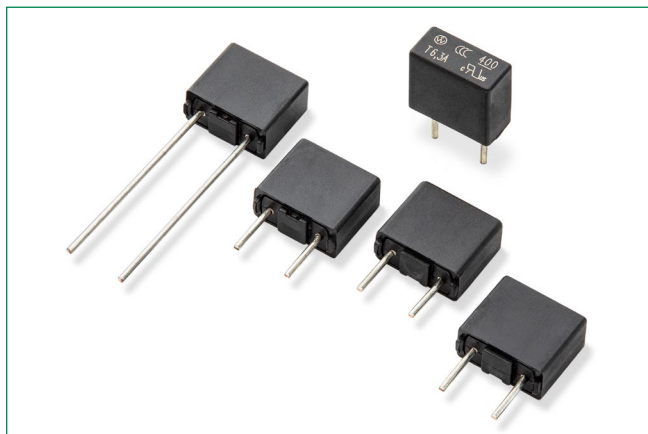


400 Series

TE5® Time-Lag Fuse



Web Resources



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

Description

The 400 Series TE5® Fuse is a Time-Lag type subminiature fuse that is designed for overcurrent protection. It is rated 250V and meets the requirements of IEC 60127-3.

Features & Benefits

- Halogen free, Lead-free and RoHS compliant
- Reduced PCB space requirements
- Direct solderable or plug-in versions
- Low internal resistance
- Shock safe casing
- Vibration resistant
- High Breaking Capacity up to 130A at 250VAC
- Internationally approved
- Recognized to UL/CSA/NMX 248-1 and UL/CSA/NMX 248-14
- Conforms to IEC/EN/J/K 60127-1 and EC/EN/J/K 60127-3

Applications

- Battery chargers
- Consumer electronics
- Power supplies
- Industrial controllers

Electrical Characteristics

% of Ampere Rating	Opening Time
150%	1 Hour, Minimum
210%	120 Secs., Maximum
275%	400 ms, Minimum; 10 Secs., Maximum
400%	150 ms, Minimum; 3 Secs., Maximum
1000%	20 ms, Minimum; 150 ms, Maximum

Agency Approvals

Agency	Agency File Number	Ampere Range
	E67006	0.50A – 6.3A
	JD 60161567	0.5A - 6.3A
	50532159	0.50A – 6.3A
	N/A	0.5A - 6.3A
	2020970207000059	0.50A – 6.3A
	SU05024-9004 SU05024-9003 SU05024-9001 SU05024-10003 SU05024-9002	0.50A – 0.80A 1A – 2.5A 3.15A 4A – 5A 6.3A
	N/A	0.5A - 6.3A

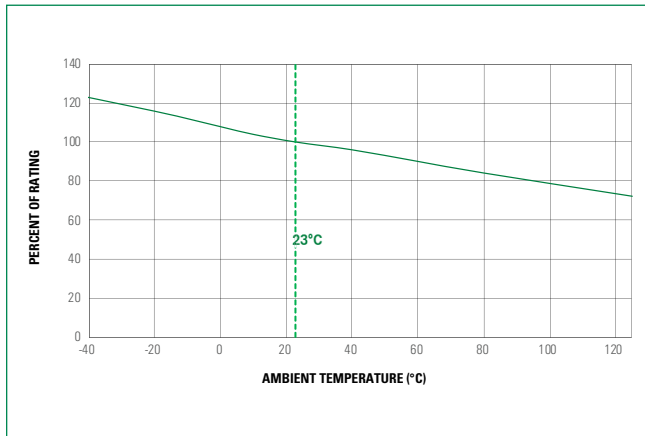
Electrical Characteristics

Amp Code	Rated Current	Rated Voltage (V)	Breaking Capacity	Nominal Cold Resistance (Ohms)	Voltage Drop 1.0I _N max. (mV)	Power Dissipation 1.0I _N max. (mW)	Melting Integral 10I _N max. (A²s)	Agency Approvals						
0.5	0.5A	250	130A @250VAC	0.1950	165	297	2.170	x	x	x	x	x	x	x
0800	0.8A	250		0.1003	116	387	6.720	x	x	x	x	x	x	x
1100	1.00A	250		0.0808	89	432	10.70	x	x	x	x	x	x	x
1125	1.25A	250		0.0562	76	411	14.44	x	x	x	x	x	x	x
1160	1.60A	250		0.0384	76	601	21.75	x	x	x	x	x	x	x
1200	2.00A	250		0.0292	75	758	46.00	x	x	x	x	x	x	x
1250	2.50A	250		0.0216	61	683	61.94	x	x	x	x	x	x	x
1315	3.15A	250		0.0167	55	921	101.61	x	x	x	x	x	x	x
1400	4.00A	250		0.0124	65	936	133.40	x	x	x	x	x	x	x
1500	5.00A	250		0.0098	56	948	216.50	x	x	x	x	x	x	x
1630	6.30A	250		0.0072	48	926	323.08	x	x	x	x	x	x	x

400 Series

TE5® Time-Lag Fuse

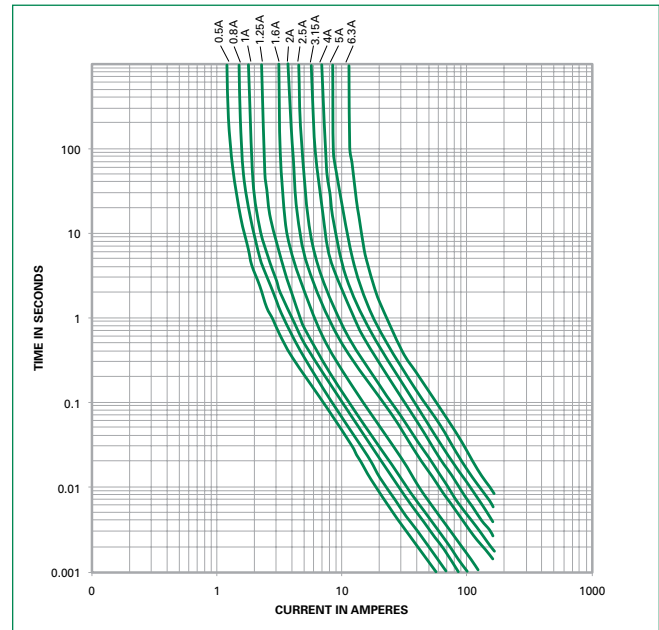
Temperature Re-rating Curve



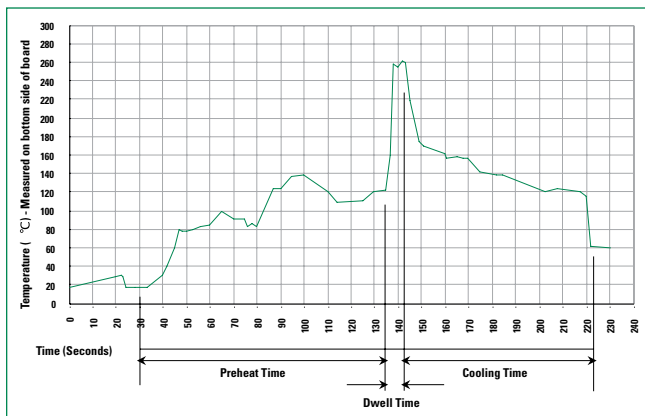
Note

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.

400 Series

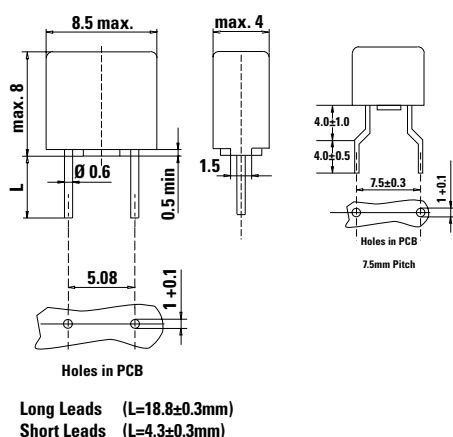
TE5® Time-Lag Fuse

Product Characteristics

Materials	Base/Cap: Thermoplastic Polyamide, UL 94 V-0 Round Pins: Copper, Tin-plated
Lead Pull Strength	10 N (IEC 60068-2-21)
Solderability	260°C, ≤ 3s. (Wave) 350°C, ≤ 3s. (Soldering Iron)
Soldering Heat Resistance	260°C, 10s. (IEC 60068-2-20) 350°C, 3s. (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 Conditions	+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 60028-2-6) 10–60Hz at 0.75mm amplitude 20–2000Hz at 10g acceleration

Dimensions



Part Numbering System

	400	xxxx	0000
Series			
Amp Code			
	Refer to Amp Code column of Electrical Characteristics Table		
Packaging Code			
0000	Tape/Ammopack	(1,400 pcs)	
0440	Shortleads - Bulk	(1,400 pcs)	
0075	7.5mm pitch - Bulk	(1,400 pcs)	

Packaging

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

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