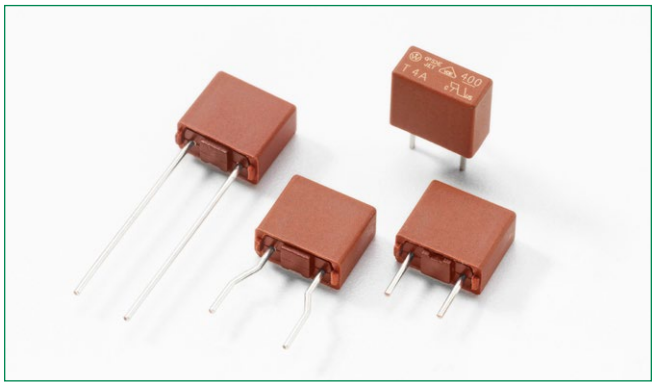
400 Series, TE5® Fuse, Time-Lag



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

- 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

Agency Approvals

Agency	Agency File Number	Ampere Range
c UL us	E67006	0.50A – 6.3A
PS E	JET1896-31007-2001 JET1896-31007-1006	1A – 5A 6.3A
VDE	40026355	0.50A – 6.3A
CCC	2019010207215856	0.50A – 6.3A
K	SU05024-9004 SU05024-9003 SU05024-9001 SU05024-10003 SU05024-9002	0.50A – 0.80A 1A – 2.5A 3.15A 4A – 5A 6.3A

Applications

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

Additional Information

Datasheet | Resources | Samples

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

Electrical Characteristics

Amp Code	Rated Current	Rated Voltage (V)	Breaking Capacity	Nominal Cold Resistance (Ohms)	Voltage Drop 1.0xI_N max. (mV)	Power Dissipation 1.0xI_N max. (mW)	Melting Integral 10xI_N max. (A^2s)	Agency Approvals				
								c UL us	PS E	VDE	CCC	K
0.5	0.5A	250	130A @250VAC	0.1950	165	297	2.170	x		x	x	x
0800	0.8A	250		0.1003	116	387	6.720	x		x	x	x
1100	1.00A	250		0.0808	89	432	10.70	x	x	x	x	x
1125	1.25A	250		0.0562	76	411	14.44	x	x	x	x	x
1160	1.60A	250		0.0384	76	601	21.75	x	x	x	x	x
1200	2.00A	250		0.0292	75	758	46.00	x	x	x	x	x
1250	2.50A	250		0.0216	61	683	61.94	x	x	x	x	x
1315	3.15A	250		0.0167	55	921	101.61	x	x	x	x	x
1400	4.00A	250		0.0124	65	936	133.40	x	x	x	x	x
1500	5.00A	250		0.0098	56	948	216.50	x	x	x	x	x
1630	6.30A	250		0.0072	48	926	323.08	x	x	x	x	x

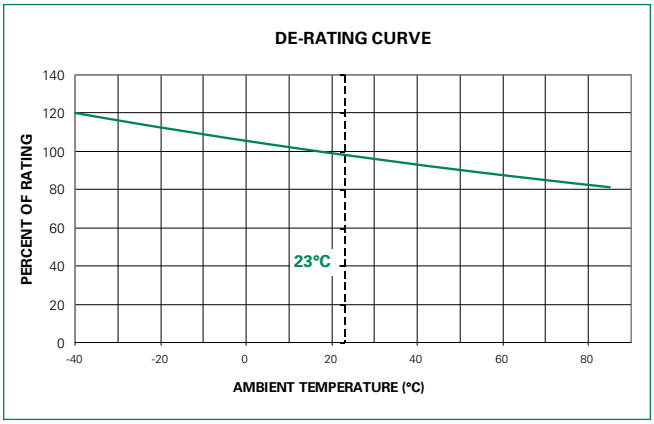
* Per VDE, approved breaking capacity is at 100A, 250VAC

Revised: 12/18/19

Radial Lead Fuses

TE5® Fuse > Time-Lag Fuse > 400 Series

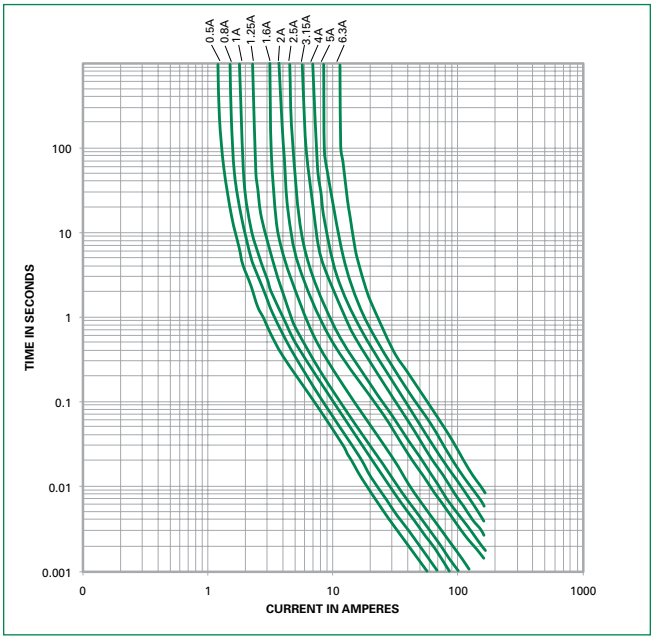
Temperature Re-rating Curve



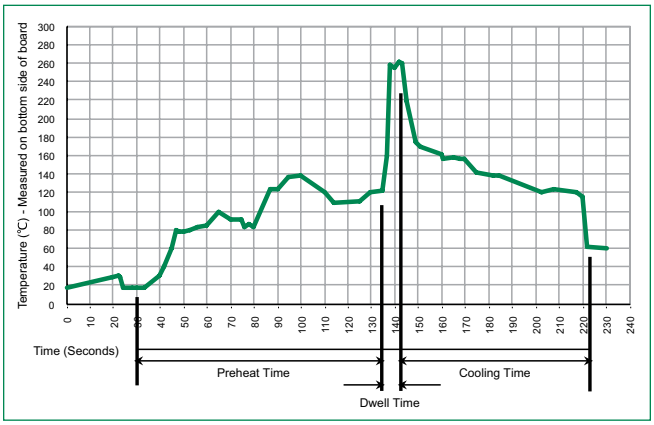
Note

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.

Revised: 12/18/19

Littelfuse
Expertise Applied | Answers Delivered

Radial Lead Fuses

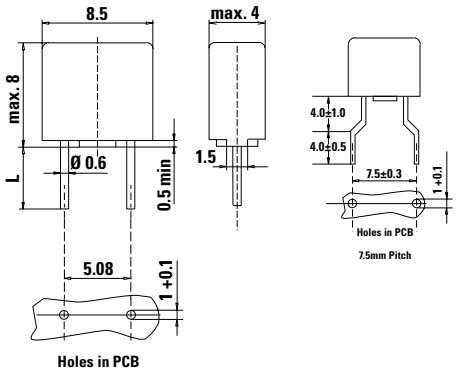
TE5® Fuse > Time-Lag Fuse > 400 Series

Product Characteristics

Materials	Base/Cap: Brown 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, ≤ 1s. (Soldering Iron)
Soldering Heat Resistance	260°C, 10s. (IEC 60068-2-20) 350°C, 3s. (Soldering Iron)

Operating Temperature	–40°C to +85°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



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

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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