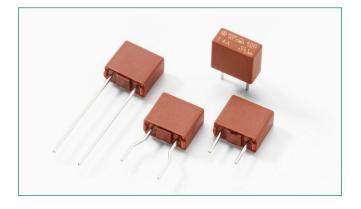


# 400 Series, TE5® Fuse, Time-Lag



#### **Agency Approvals**

Agency	Agency File Number	Ampere Range		
c <b>FN</b> <sup>°</sup> us	E67006	0.50A – 6.3A		
PS E	JET1896-31007-2001 JET1896-31007-1006	1A – 5A 6.3A		
VDE	40026355	0.50A – 6.3A		
) )	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		

# Additional Information







## Description

The 400 Series TE5<sup>®</sup> 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 plugin 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

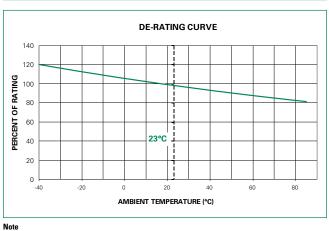
#### **Electrical Characteristics**

		Detail		Newberlock	Voltage	Power	Melting		Agency Approvals			
Amp Code	Rated Current	Rated Voltage (V)	Breaking Capacity	Nominal Cold Resistance (Ohms)	Drop 1.0×I <sub>N</sub> max. (mV)	Dissipation 1.0×I <sub>N</sub> max. (mW)	Integral 10×I <sub>N</sub> max. (A²s)	c 🂫 us	PS E	VDE		ß
0.5	0.5A	250		0.1950	165	297	2.170	x		x	х	х
0800	0.8A	250		0.1003	116	387	6.720	х		x	х	х
1100	1.00A	250	-	0.0808	89	432	10.70	х	х	х	х	х
1125	1.25A	250	]	0.0562	76	411	14.44	x	х	x	х	х
1160	1.60A	250		0.0384	76	601	21.75	x	х	x	х	x
1200	2.00A	250	130A @250VAC	0.0292	75	758	46.00	x	х	x	х	x
1250	2.50A	250	@200VAC	0.0216	61	683	61.94	x	х	x	х	х
1315	3.15A	250		0.0167	55	921	101.61	x	х	x	х	х
1400	4.00A	250		0.0124	65	936	133.40	x	х	x	х	х
1500	5.00A	250		0.0098	56	948	216.50	x	х	x	х	х
1630	6.30A	250		0.0072	48	926	323.08	x	х	х	х	x

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

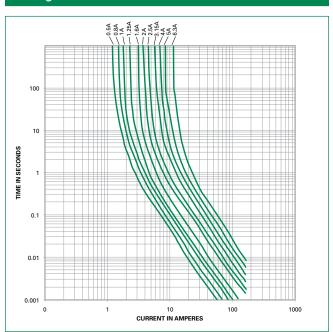


## Temperature Re-rating Curve

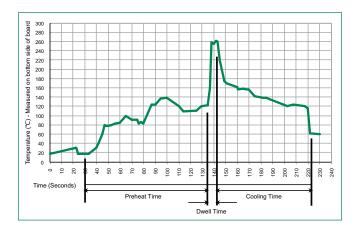


1. Rerating depicted in this curve is in addition to the standard derating of 25% for continuous operation.

#### **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.



Part Numbering System

Series

Amp Code

0440

Packaging Code

**Refer to Amp Code column of** 

0000 Tape/Ammopack

0075 7.5mm pitch - Bulk

**Electrical Characteristics Table** 

Shortleads - Bulk

Dradu	ict Cha	rantar	otion
FIUUU	ici Gila	auter	ISLICS

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, $\leq$ 3s. (Wave) 350°C, $\leq$ 1s. (Soldering Iron)		
Soldering Heat Resistance	260°C, 10s. (IEC 60068-2-20) 350°C, 3s. (Soldering Iron)		

<b>Operating Temperature</b>	-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

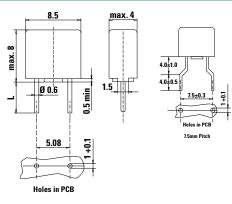
400 xxxx 0000

(1,400 pcs)

(1,400 pcs)

(1,400 pcs)

#### Dimensions



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

#### 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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