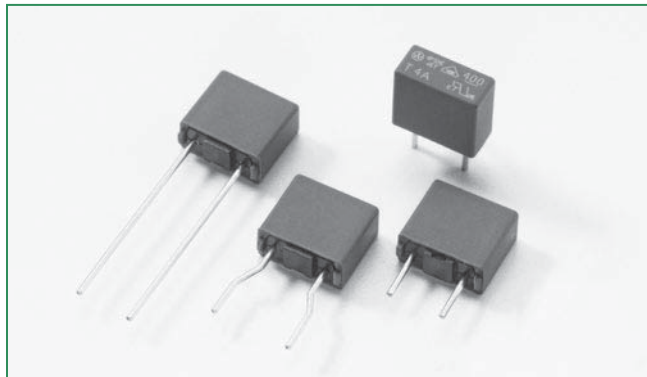


**RoHS (Pb) HF 400 Series, TE5®, Time-Lag Fuse**

**Description**

The 400 Series is a TE5®, Time-Lag type subminiature fuse designed for overcurrent protection. It is 250V rated and designed in accordance to IEC 60127-3.





**Features**

- Lead-free and RoHS Compliant
- Reduced PCB space requirements
- Direct solderable or plug-in versions
- Low internal resistance
- Shock safe casing
- Vibration resistant
- Halogen-free

**Applications**

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





**Agency Approvals**

Agency	Agency File Number	Ampere Range
	E67006	500mA – 6.3A
	JET1896-31007-2002	1A – 5A
	D1-40597	500mA~4A, 6.3A
	Pending	5A
	CQC09012031624	800mA~3.15A, 6.3A
	Pending	500mA, 4A, 5A

**Electrical Characteristics**

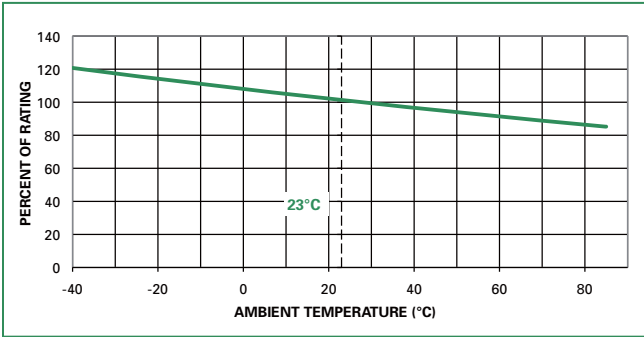
% of Ampere Rating	Opening Time
150%	1 Hour, Minimum
210%	120 Secs., Maximum
275%	400 ms, Minimum; 10 Secs., Maximum
400%	150 ms, Minimum; 3 Secs., Maximum
1000%	20 ms, Minimum; 150 ms, Maximum

**Electrical Characteristics**

Ampere Rating (A)	Amp Code	Voltage Rating	Breaking Capacity	Voltage Drop 1.0 x I <sub>N</sub> max. (mV)	Power Dissipation 1.0 x I <sub>N</sub> max. (mW)	Melting Integral 10 x I <sub>N</sub> max. (A <sup>2</sup> s)	Agency Approvals			
										
500mA	0500	250V	130A/250VAC* 50-60 Hz cosφ = 1.0	165	297	2.17	x		x	
800mA	0800	250V		116	387	6.72	x		x	x
1.00A	1100	250V		89	432	9.63	x	x	x	x
1.25A	1125	250V		76	411	14.44	x	x	x	x
1.60A	1160	250V		76	601	21.75	x	x	x	x
2.00A	1200	250V		75	758	32.16	x	x	x	x
2.50A	1250	250V		61	683	61.94	x	x	x	x
3.15A	1315	250V		55	921	101.61	x	x	x	x
4.00A	1400	250V		65	936	133.40	x	x	x	
5.00A	1500	250V		56	948	216.50	x	x	P	
6.30A	1630	250V		48	926	318.71	x		x	x

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

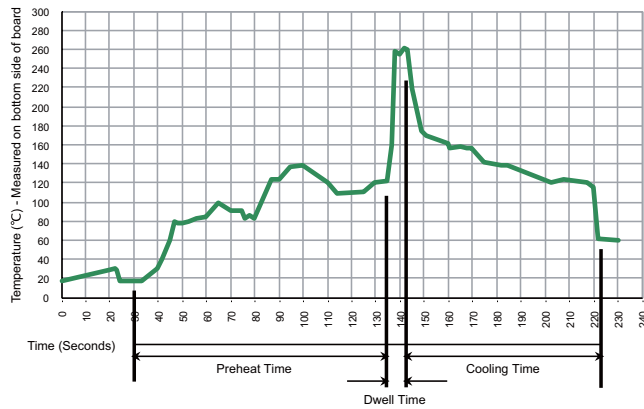
### Temperature Derating Curve



### Average Time Current Curves



### Soldering Parameters - Wave Soldering



#### Recommended Process Parameters:

Wave Parameter	Lead-Free Recommendation
<b>Preheat:</b> (Depends on Flux Activation Temperature)	(Typical Industry Recommendation)
Temperature Minimum:	100° C
Temperature Maximum:	150° C
Preheat Time:	60-180 seconds
<b>Solder Pot Temperature:</b>	260° C Maximum
<b>Solder Dwell Time:</b>	2-5 seconds

#### Recommended Hand-Solder Parameters:

Solder Iron Temperature: 350° C +/- 5° C  
 Heating Time: 5 seconds max.

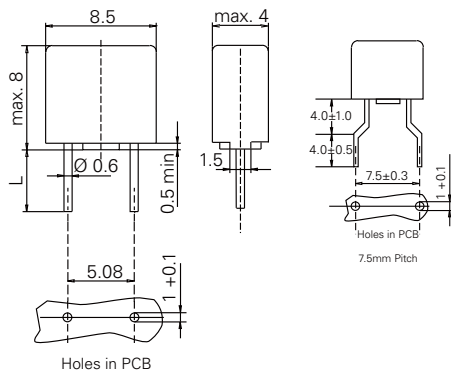
**Note: These devices are not recommended for IR or Convection Reflow process.**

### Product Characteristics

<b>Materials</b>	Base/Cap: Brown Thermoplastic Polyamide, UL 94 V-0 Round Pins: Copper, Tin-plated
<b>Lead Pull Strength</b>	10 N (IEC 60068-2-21)
<b>Solderability</b>	260°C, ≤ 3s. (Wave) 350°C, ≤ 1s. (Soldering Iron)
<b>Soldering Heat Resistance</b>	260°C, 10s. (IEC 60068-2-20) 350°C, 3s. (Soldering Iron)

<b>Operating Temperature</b>	-40°C to +125°C (consider derating)
<b>Climatic Category</b>	-40°C to +85°C/21 days (EN 60068-1,-2-1,-2-2,-2-78)
<b>Stock Conditions</b>	+10°C to +60°C relative humidity 75% yearly average, without dew, maximum value for 30 days - 95%
<b>Vibration Resistance</b>	24 cycles at 15 min. each (EN60028-2-6) 10 - 60 Hz at 0.75 mm amplitude 20 - 2000 Hz at 10 g acceleration

### Dimensions



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

### Part Numbering System



### Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Taping Width
<b>400 Series</b>				
Tape & Ampopack	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

