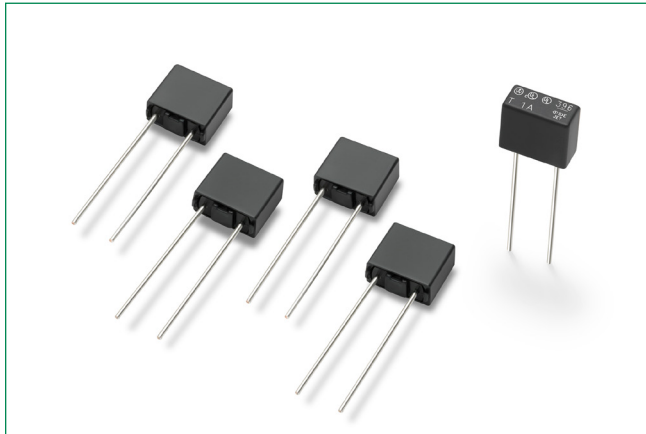


# 396 Series

## TE5® Time-Lag Fuse



### Description

The 396 Series TE5® fuses are time-lag type, 125V rated, and are designed in accordance to UL 248-14.

### Features & Benefits

- RoHS-compliant, Lead-free and Halogen-free
- Reduced PCB space requirements
- Direct solderable or plug-in versions
- Low internal resistance
- Shock safe casing
- Vibration resistant
- Available from 0.05 A to 6.3 A
- Listed to UL/CSA/NMX 248-1 and UL/CSA/NMX 248-14
- Conforms to DENAN's Appendix 3 for the Japanese Market

### Applications

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

### Additional Information



Resources



Accessories



Samples

### Electrical Characteristics

% of Ampere Rating	Opening Time
200%	60 Seconds, Max.

### Agency Approvals

Agency	Agency File/Certificate Number	Ampere Range
UL	E67006	0.05 A - 6.3 A
UL	E67006	0.05 A - 6.3 A
PS E	NBK010721-JP1021	1 A - 5 A

### Electrical Characteristics

Amp Code	Rated Current	Voltage Rating	Breaking Capacity	Nominal Cold Resistance (Ohms) <sup>1</sup>	Voltage Drop 1.0xI <sub>N</sub> max. (mV)	Power Dissipation 1.0xI <sub>N</sub> max. (mW)	Melting Integral 10xI <sub>N</sub> max. (A <sup>2</sup> s)	Agency Approvals		
								UL	UL	PS E
0050	50 mA	125 V	100 A @ 125 VAC	12.5000	900	45	0.011	x	x	-
0063	63 mA	125 V		8.7900	800	50	0.017	x	x	-
0080	80 mA	125 V		6.0090	700	55	0.02	x	x	-
0100	100 mA	125 V		3.8400	600	60	0.04	x	x	-
0125	125 mA	125 V		2.9000	550	70	0.05	x	x	-
0160	160 mA	125 V		1.7700	480	80	0.09	x	x	-
0200	200 mA	125 V		1.2000	390	80	0.14	x	x	-
0250	250 mA	125 V		0.7500	350	90	0.26	x	x	-
0315	315 mA	125 V		0.5450	300	95	0.32	x	x	-
0400	400 mA	125 V		0.3750	250	100	0.58	x	x	-
0500	500 mA	125 V		0.2470	220	110	0.86	x	x	-
0630	630 mA	125 V		0.1850	210	135	1.15	x	x	-
0800	800 mA	125 V		0.1250	160	130	1.92	x	x	-
1100	1.00 A	125 V		0.0868	155	155	3.25	x	x	x
1125	1.25 A	125 V		0.0666	145	185	4.69	x	x	x
1160	1.60 A	125 V		0.0502	130	210	6.76	x	x	x
1200	2.00 A	125 V		0.0398	125	250	11.90	x	x	x
1250	2.50 A	125 V		0.0297	120	300	17.81	x	x	x
1315	3.15 A	125 V	0.0216	110	350	26.29	x	x	x	
1400	4.00 A	125 V	0.0164	110	400	38.40	x	x	x	
1500	5.00 A	125 V	0.0112	95	475	71.25	x	x	x	
1630	6.30 A	125 V	0.0087	95	570	144.87	x	x	-	

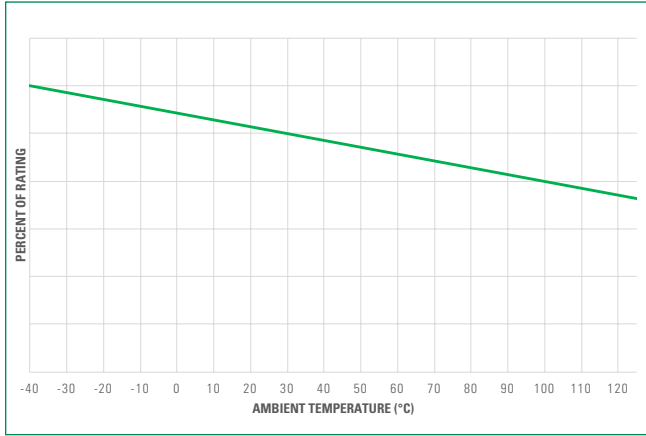
**Notes:**

1. Resistance is measured at 10% of rated current, 25°C.

# 396 Series

## TE5® Time-Lag Fuse

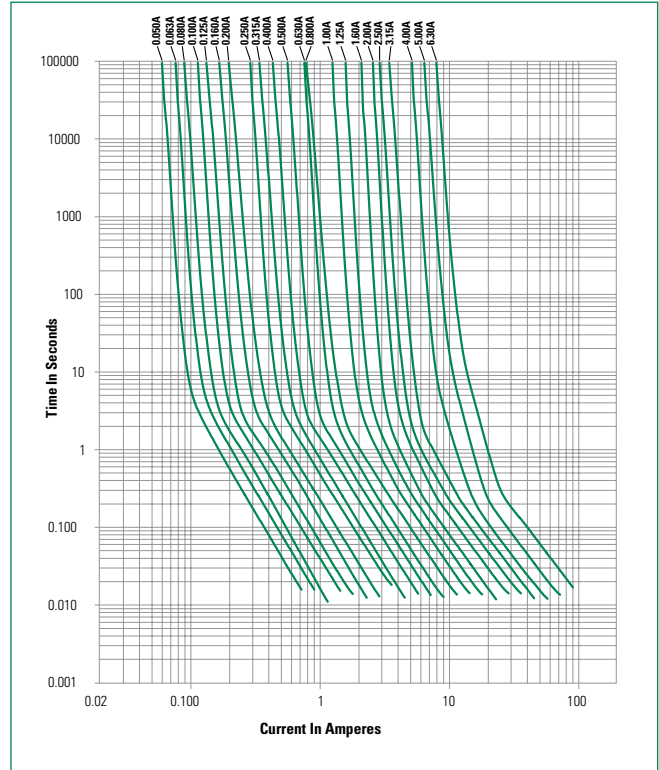
### Temperature Re-rating Curve



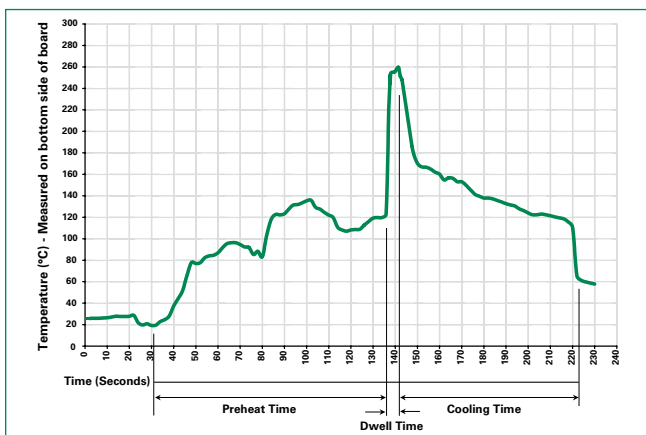
**Note:**

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.

# 396 Series

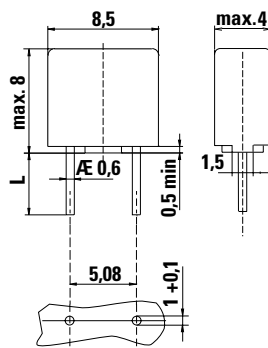
## TE5® Time-Lag Fuse

### Product Characteristics

<b>Materials</b>	Base/Cap: Thermoplastic Polyamide PA 6.6, 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)

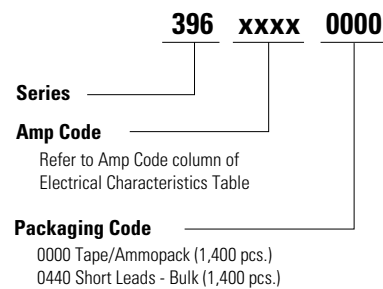
<b>Operating Temperature</b>	-40°C to +125°C (Consider re-rating)
<b>Climatic Category</b>	-40°C to +85°C/21 days (IEC 60068-1,-2-1,-2-2,-2-78)
<b>Stock Conditions</b>	+10°C to +60°C RH ≤ 75% yearly average, without dew, maximum value for 30 days-95%
<b>Vibration Resistance</b>	24 cycles at 15 min. each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

### Dimensions



**Holes in PCB**  
**Long Leads (L=18.8mm)**  
**Short Leads (L=4.3mm)**

### Part Numbering System



### Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Taping Width
<b>396 Series</b>				
Tape & Ammopack	N/A	1,400	0000	N/A
Short Leads	N/A	1,400	0440	N/A

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