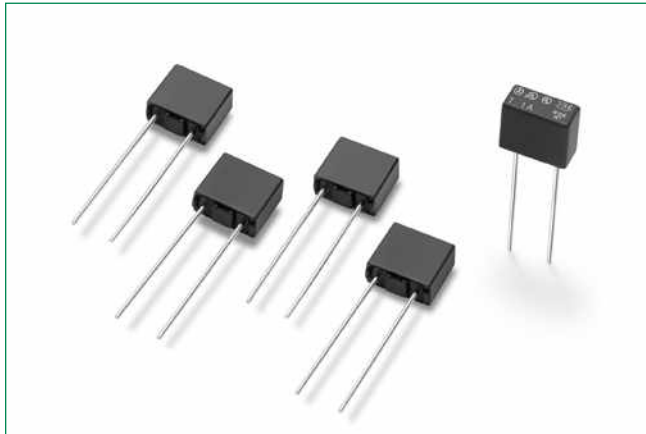


396 Series

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

Additional Information



Resources



Accessories



Samples

Electrical Characteristics

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

Applications

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

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) ¹	Voltage Drop 1.0xI _N max. (mV)	Power Dissipation 1.0xI _N max. (mW)	Melting Integral 10xI _N max. (A ² 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	-	

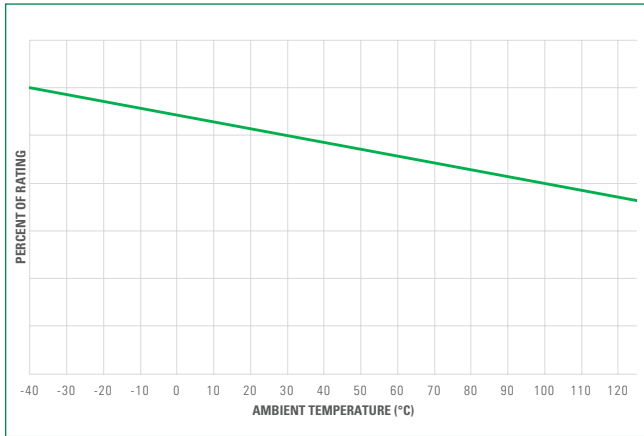
Notes:

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

396 Series

TE5® Time-Lag Fuse

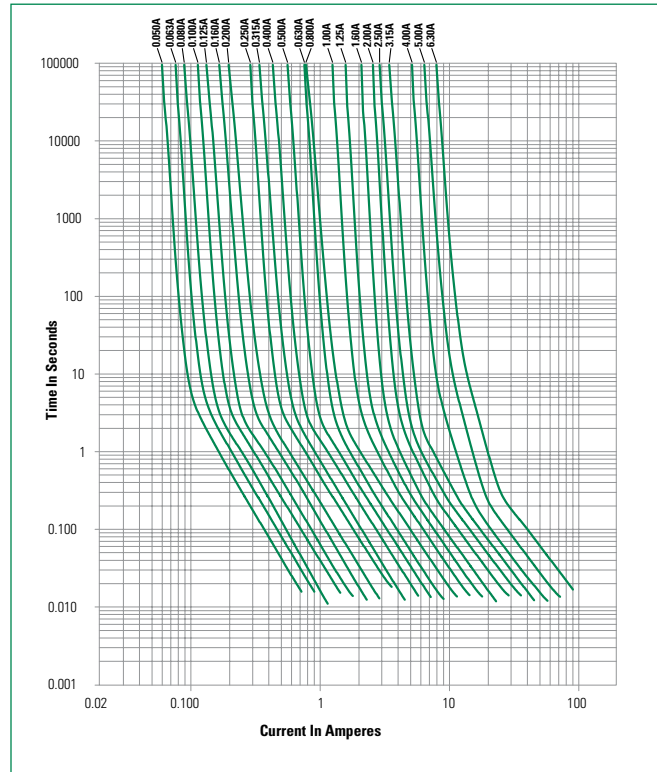
Temperature Re-rating Curve



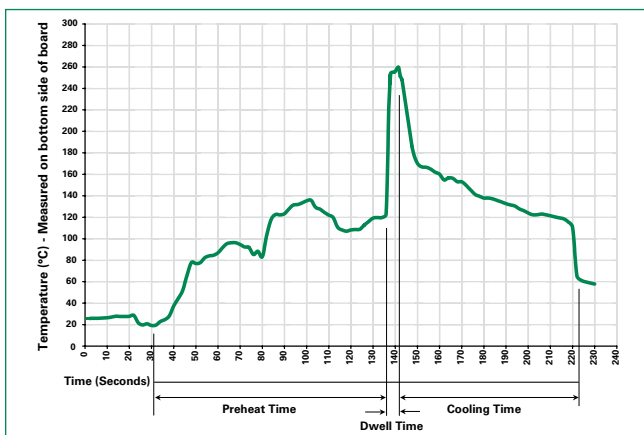
Note:

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

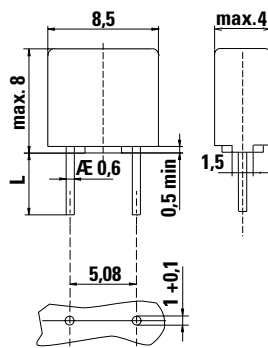
TE5® Time-Lag Fuse

Product Characteristics

Materials	Base/Cap: Thermoplastic Polyamide PA 6.6, 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)

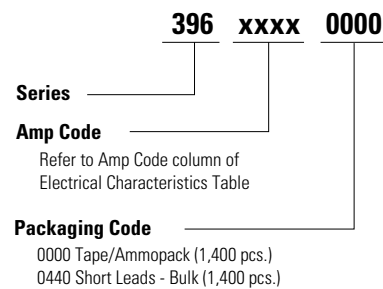
Operating Temperature	-40°C to +125°C (Consider re-rating)
Climatic Category	-40°C to +85°C/21 days (IEC 60068-1,-2-1,-2-2,-2-78)
Stock Conditions	+10°C to +60°C RH ≤ 75% yearly average, without dew, maximum value for 30 days-95%
Vibration Resistance	24 cycles at 15 min. each (IEC 60068-2-6) 10 - 60Hz 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
396 Series				
Tape & Ampmopack	N/A	1,400	0000	N/A
Short Leads	N/A	1,400	0440	N/A

Disclaimer Notice - Littelfuse products are not designed for, and shall not be used for, any purpose (including, without limitation, automotive, military, aerospace, medical, life-saving, life-sustaining or nuclear facility applications, devices intended for surgical implant into the body, or any other application in which the failure or lack of desired operation of the product may result in personal injury, death, or property damage) other than those expressly set forth in applicable Littelfuse product documentation. Warranties granted by Littelfuse shall be deemed void for products used for any purpose not expressly set forth in applicable Littelfuse documentation. Littelfuse shall not be liable for any claims or damages arising out of products used in applications not expressly intended by Littelfuse as set forth in applicable Littelfuse documentation. The sale and use of Littelfuse products is subject to Littelfuse Terms and Conditions of Sale, unless otherwise agreed by Littelfuse. Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of and test each product selected for their own applications. Littelfuse products are not designed for, and may not be used in, all applications. Read complete Disclaimer Notice at www.littelfuse.com/disclaimer-electronics.