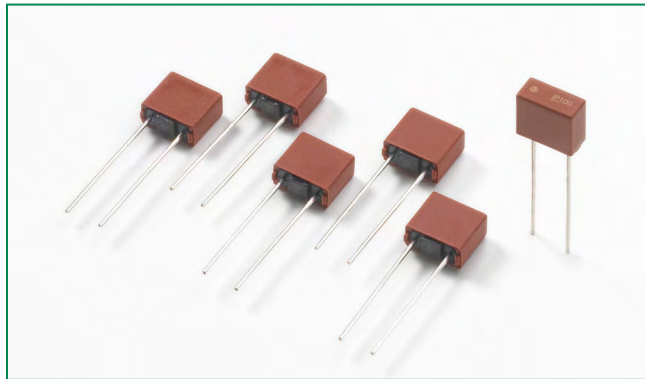


399 Series, TE5® Inrush Protector Fuse



Agency Approvals

Agency	Agency File Number	Ampere Range
	E67006	0.125A - 4A

Additional Information



Datasheet



Resources



Samples

Description

The 399 Series TE5 Fuses are Time-Lag type, and are 65V rated. For Short Circuit Protection of Sensitive Electronic Components and Assemblies.

Features

- Reduced PCB space requirements
- Highly defined cut-off times
- Low internal resistance
- Flame resistant encapsulated casing
- Lead-free, Halogen free and RoHS Compliant
- Available from 0.125A to 4A

Applications

- IC Chip Protection

Electrical Characteristics

% of Ampere Rating	Opening Time
300	20 Seconds, Max.

Electrical Characteristics

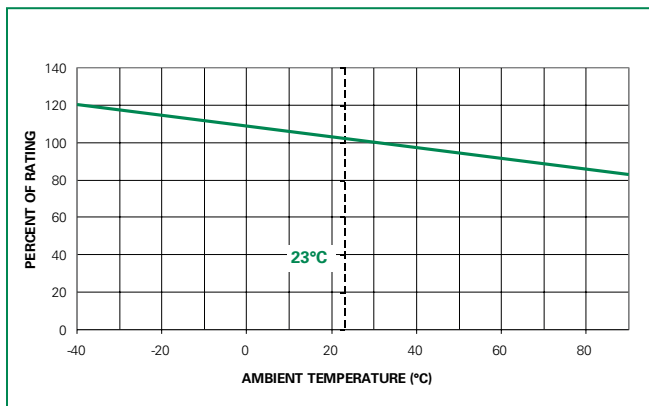
Amp Code	Rated Current	Marking Code*	Voltage Rating	Breaking Capacity	Nominal Cold Resistance (Ohms)	Cold Resistance $0.1 \times I_N$ typ. (mΩ)	Power Dissipation $1.0 \times I_N$ max. (mW)	Melting Integral $10 \times I_N$ max. (A²s)	Agency Approvals
0125	125 mA	IP13	65 V	50A@65 VAC/ DC	1.7450	1600	125	0.1461	x
0160	160 mA	IP16	65 V		1.1000	1103	140	0.2099	x
0200	200 mA	IP20	65 V		0.7800	775	155	0.30	x
0250	250 mA	IP25	65 V		0.5500	550	170	0.42	x
0315	315 mA	IP32	65 V		0.3810	382	190	0.62	x
0400	400 mA	IP40	65 V		0.2650	264	220	0.92	x
0500	500 mA	IP50	65 V		0.1900	191	240	1.40	x
0630	630 mA	IP63	65 V		0.1300	129	265	2.04	x
0800	800 mA	IP80	65 V		0.0920	92	300	3.33	x
1100	1.00 A	IP100	65 V		0.0650	66	330	4.30	x
1125	1.25 A	IP125	65 V		0.0470	46	370	6.88	x
1160	1.60 A	IP160	65 V		0.0330	33	420	12.03	x
1200	2.00 A	IP200	65 V		0.0230	25	460	14.00	x
1250	2.50 A	IP250	65 V		0.0170	18	520	23.13	x
1315	3.15 A	IP315	65 V		0.0132	13	580	44.65	x
1400	4.00 A	IP400	65 V		0.0095	10	650	76.80	x

* Physical Marking on top of the device

Notes:

- 1) 1.00 means the number one with two decimal places. 1,000 means the number one thousand.
- 2) Resistance is measured at 10% of rated current, 25°C.

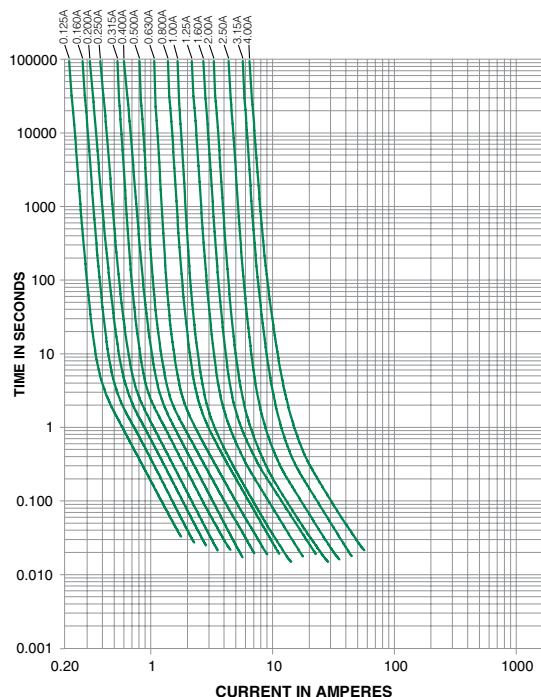
Temperature Re-rating Curve



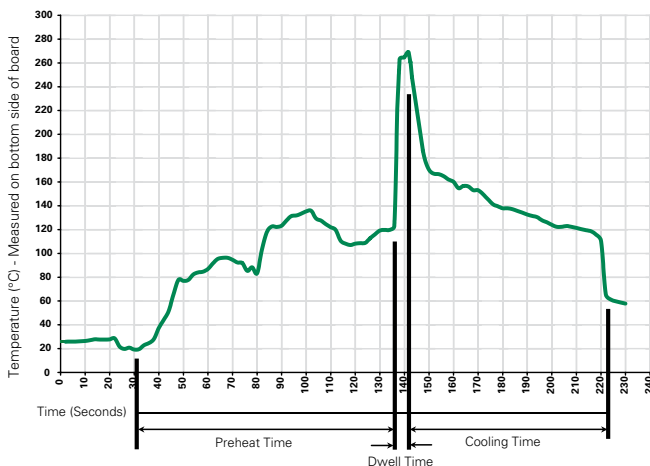
Note:

1. Derating 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.

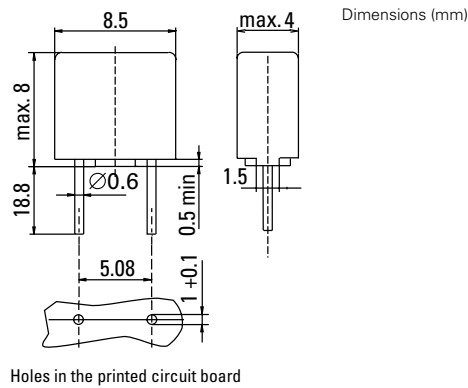
Note: These devices are not recommended for IR or Convection Reflow process.

Product Characteristics

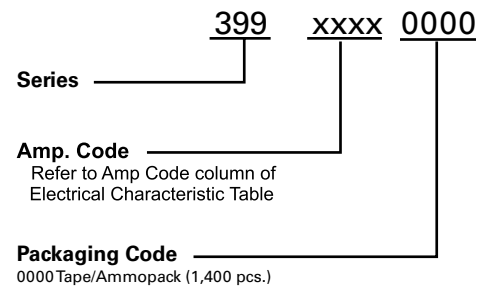
Materials	Base/Cap: Brown Thermoplastic Polyamide PA 6.6, UL 94V-0 Round Pins: Copper, Tin-plated
Lead Pull Strength	10 N (IEC 60068-2-21)
Solderability	260°C, ≤ 3s. (Wave) 350°C, ≤ 1s. (Soldering Iron)
Soldering Heat Resistance	260°C, 10s. (IEC 60068-2-20) 350°C, 3s. (Soldering Iron)

Operating Temperature	-40°C to +85°C (consider de-rating)
Climatic Category	-40°C to +85°C/21 days (IEC 60068-1,-2-1,-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



Part Numbering System



Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Reel Size
399 Series				
Tape & Ampopack	N/A	1,400	0000	N/A

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Littelfuse:

<u>39905000000</u>	<u>39904000000</u>	<u>39902000000</u>	<u>39911000000</u>	<u>39912000000</u>	<u>39814000000</u>	<u>39813150000</u>	
<u>39906300000</u>	<u>39908000000</u>	<u>39902500000</u>	<u>39812500000</u>	<u>3990160000</u>	<u>3991125000</u>	<u>3981250000</u>	<u>39901250000</u>
<u>39911250000</u>	<u>39901600000</u>	<u>39911600000</u>	<u>39903150000</u>				