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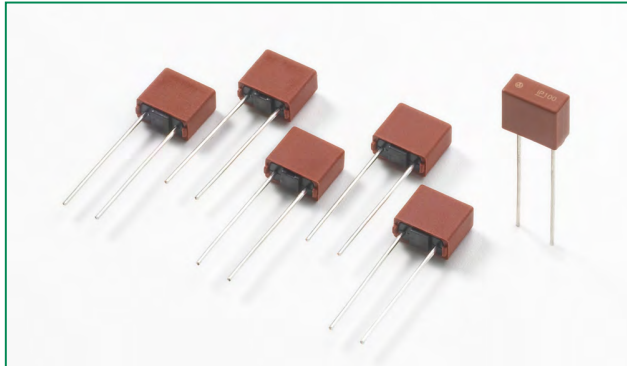
For any questions, you can email us directly:

[sales@integrated-circuit.com](mailto:sales@integrated-circuit.com)

# Radial Lead Fuses

TE5® > Time-Lag Fuse > 399 Series

## 399 Series, TE5® Inrush Protector Fuse



### 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

### Agency Approvals

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

### Additional Information



Datasheet



Resources



Samples

### Electrical Characteristics

% of Ampere Rating	Opening Time
300	20 Seconds, <b>Max.</b>

### Electrical Characteristics

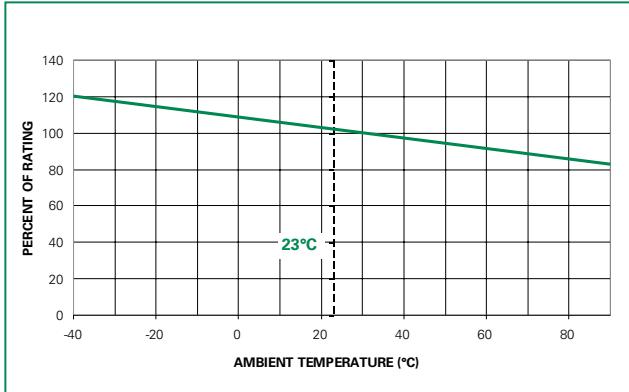
Amp Code	Rated Current	Marking Code*	Voltage Rating	Breaking Capacity	Nominal Cold Resistance (Ohms)	Cold Resistance 0.1xI <sub>N</sub> typ. (mΩ)	Power Dissipation 1.0xI <sub>N</sub> max. (mW)	Melting Integral 10xI <sub>N</sub> max. (A <sup>2</sup> s)	Agency Approvals
0125	125 mA	IP13	65 V	50A@65 VAC/ 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:

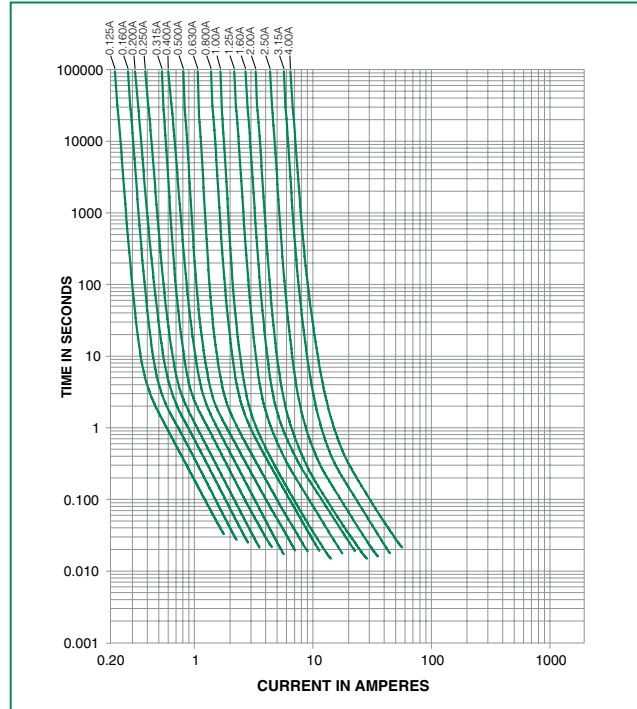
- 1) 1.00 means the number one with two decimal places. 1,000 means the number one thousand.
- 2) Resistance is measured at 10% of rated current, 25°C.

### Temperature Re-rating Curve

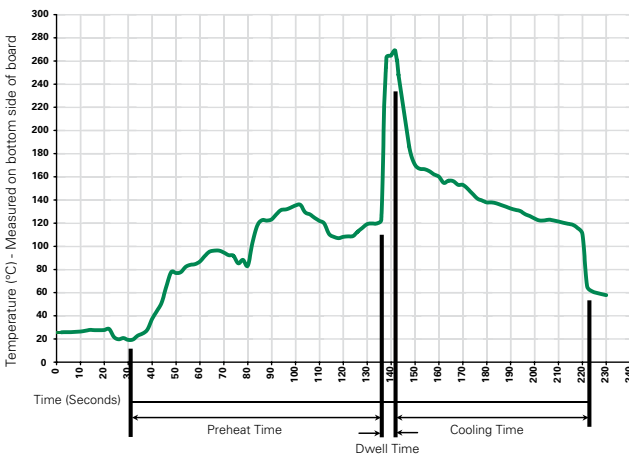


Note:  
 1. Re-rating depicted in this curve is in addition to the standard derating of 25% for continuous operation.

### Average Time Current Curves



### Soldering Parameters - Wave Soldering



### Recommended Process Parameters:

Wave Parameter	Lead-Free Recommendation
<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.**

# Radial Lead Fuses

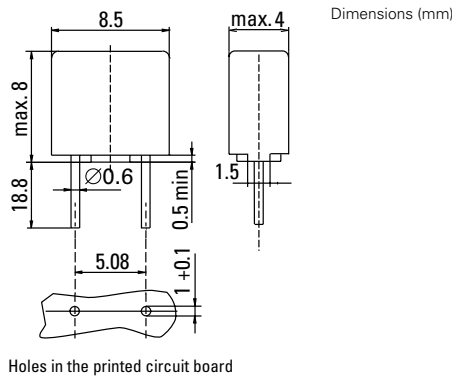
TE5® > Time-Lag Fuse > 399 Series

## Product Characteristics

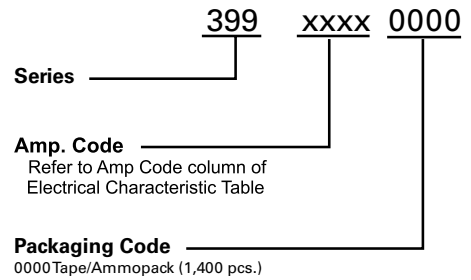
<b>Materials</b>	Base/Cap: Brown Thermoplastic Polyamide PA 6.6, UL 94V-0 Round Pins: Copper, Tin-plated
<b>Lead Pull Strength</b>	10 N (IEC 60068-2-21)
<b>Solderability</b>	260°C, ≤ 3s. (Wave) 350°C, ≤ 1s. (Soldering Iron)
<b>Soldering Heat Resistance</b>	260°C, 10s. (IEC 60068-2-20) 350°C, 3s. (Soldering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

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



## Part Numbering System



## Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Reel Size
<b>399 Series</b>				
Tape & Amp pack	N/A	1,400	0000	N/A