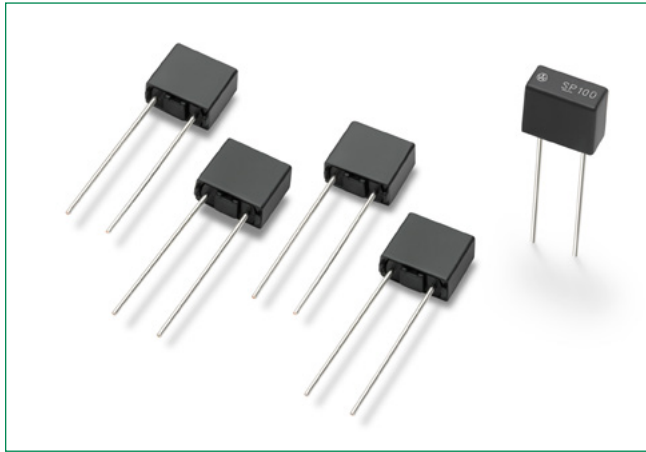


### 391 Series, TE5® Fast-Acting Fuse




#### Description

The 391 Series are TE5® short circuit protector, fast-acting type, 65V rated fuses. For Short Circuit Protection of Sensitive Electronic Components and Assemblies.

#### Features

- Recognized to UL/CSA/ NMX 248-1 and UL/CSA/ NMX 248-14
- Reduced PCB space requirements
- Highly defined cut-off times
- Low internal resistance
- Flame resistant encapsulated casing
- RoHS-compliant and Lead-free
- Available from 0.125A to 4A.

#### Agency Approvals

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

#### Applications

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

#### Additional Information



Datasheet



Resources



Samples

#### Electrical Characteristics

% of Ampere Rating	Opening Time
300	2 Seconds, <b>Max.</b>

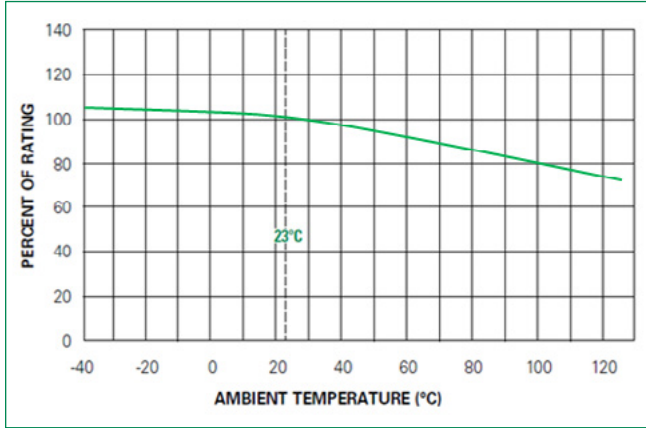
#### Electrical Characteristics

Amp Code	Rated Current	Marking Code*	Voltage Rating	Breaking Capacity	Nominal Cold Resistance (Ohms)	Cold Resistance 0.1xI <sub>N</sub> max. (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	SP13	65 V	50A @65VAC/DCC	3.4000	3400	190	0.006	x
0160	160 mA	SP16	65 V		2.4800	2450	210	0.011	x
0200	200 mA	SP20	65 V		1.7500	1750	240	0.020	x
0250	250 mA	SP25	65 V		0.1950	195	52	0.012	x
0315	315 mA	SP32	65 V		0.1850	155	65	0.018	x
0400	400 mA	SP40	65 V		0.1200	120	85	0.038	x
0500	500 mA	SP50	65 V		0.0950	95	105	0.063	x
0630	630 mA	SP63	65 V		0.0750	75	135	0.105	x
0800	800 mA	SP80	65 V		0.0580	58	170	0.170	x
1100	1.00 A	SP100	65 V		0.0460	46	220	0.280	x
1125	1.25 A	SP125	65 V		0.0370	37	270	0.450	x
1160	1.60 A	SP160	65 V		0.0290	29	350	0.832	x
1200	2.00 A	SP200	65 V		0.0236	23	440	1.060	x
1250	2.50 A	SP250	65 V		0.0180	18	550	2.219	x
1315	3.15 A	SP315	65 V		0.0140	14	700	3.870	x
1400	4.00 A	SP400	65 V		0.0115	12	900	6.500	x

#### Notes:

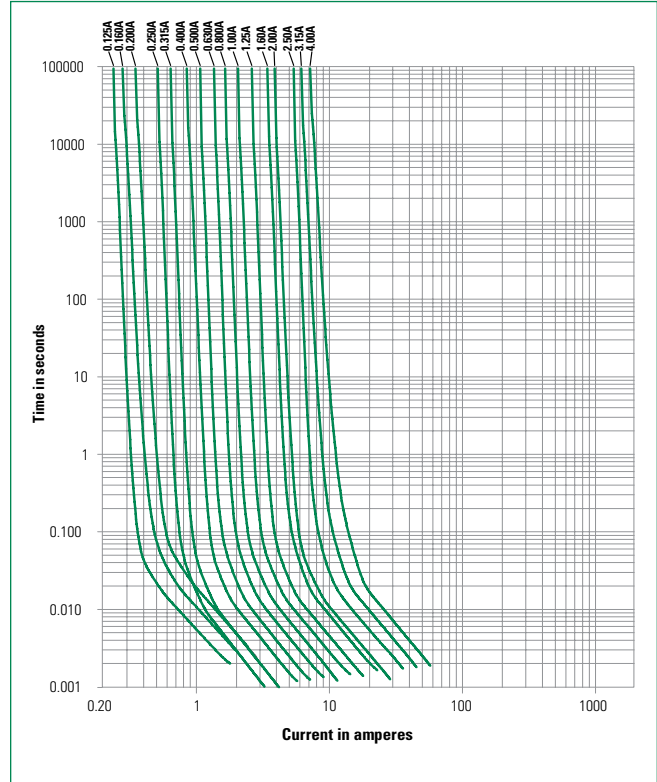
- \* Physical Marking on top of the device.
- Resistance is measured at 10% of rated current, 25°C.

**Temperature Re-rating Curve**

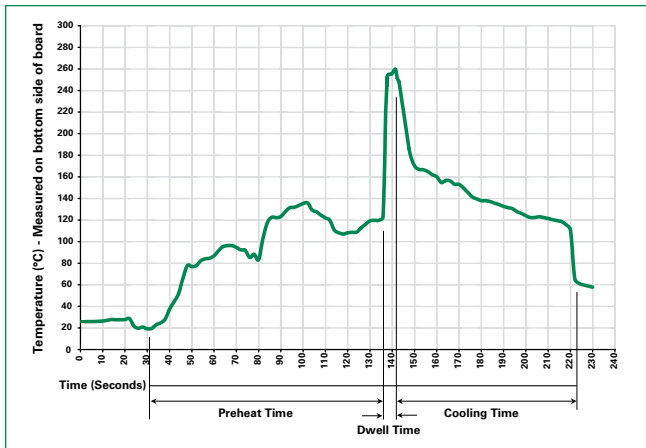


**Note:**  
1. Rerating depicted in this curve is in addition to the standard derating of 25% for continuous operation.

**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.

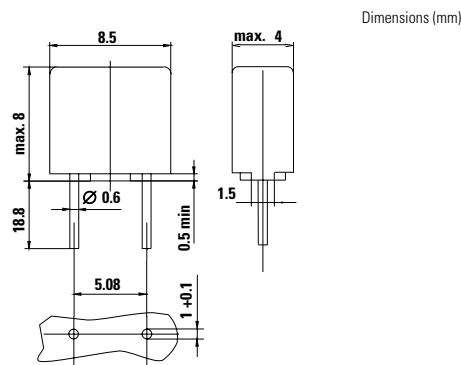
**Note:** These devices are not recommended for IR or Convection Reflow process.

### Product Characteristics

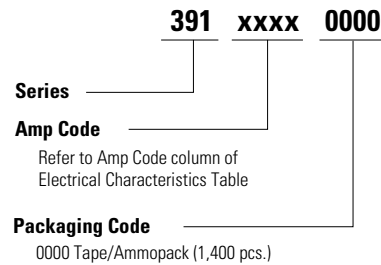
<b>Materials</b>	Base/Cap: Thermoplastic Polyamide PA 6.6, UL 94V-0 Round Pins: Copper, Tin-plated
<b>Lead Pull Strength</b>	10 N (EN 60068-2-21)
<b>Solderability</b>	260°C, ≤ 3s. (Wave) 350°C, ≤ 1s. (Soldering Iron)
<b>Soldering Heat Resistance</b>	260°C, 10s. (IEC 60068-2-20) 350°C, 3s. (Soldering 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,-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 - 60 Hz at 0.75 mm amplitude 60 - 2000 Hz at 10 g acceleration

### Dimensions



### Part Numbering System



### Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Taping Width
<b>391 Series</b>				
Tape & Ampopack	N/A	1,400	0000	N/A

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