# imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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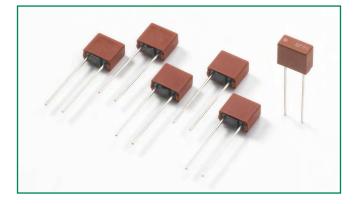


## **Radial Lead Fuses** TE5<sup>®</sup> > Fast Acting Fuse > 391 Series



# 391 Series, TE5® Fast-Acting Fuse

RoHS PO c PL US



Agency Approvals				
Agency	Agency File Number	Ampere Range		
c <b>FL</b> <sup>®</sup> us	E67006	0.125A - 4A		

#### **Additional Information**







#### Description

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

#### Features

- For worldwide applications
- Reduced PCB space requirements
- Highly defined cut-off times
- Low internal resistance

#### Applications

- Battery chargers
- Consumer Electronics
- Power supplies

• Flame resistant

Lead-free

to 4A.

encapsulated casing

• RoHS compliant and

• Available from 0.125A

Industrial controllers

#### **Electrical Characteristics**

% of Ampere Rating	OpeningTime	
300	2 Seconds, Max.	

Electrical Characteristics									
Amp Code	Rated Current	Marking Code*	Voltage Rating	Breaking Capacity	Nominal Cold Resistance (Ohms)	Cold Resistance 0.1×I <sub>N</sub> max. (mΩ)	Power Disspation 1.0×I <sub>N</sub> max. (mW)	Melting Integral 10×I <sub>N</sub> max. (A²s)	Agency Approvals c
0125	125 mA	SP13	65 V		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	х
0250	250 mA	SP25	65 V		0.1950	195	52	0.012	х
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	50A	0.0750	75	135	0.105	x
0800	800 mA	SP80	65 V	@65VAC/VDC	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:

1. \* Physical Marking on top of the device.

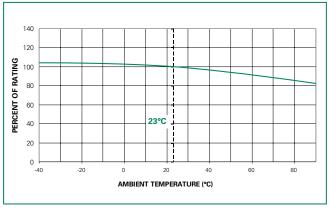
2. Resistance is measured at 10% of rated current, 25°C.

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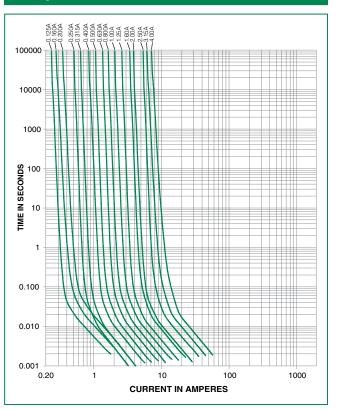
## **Radial Lead Fuses** TE5<sup>®</sup> > Fast Acting Fuse > 391 Series

#### **Temperature Re-rating Curve**

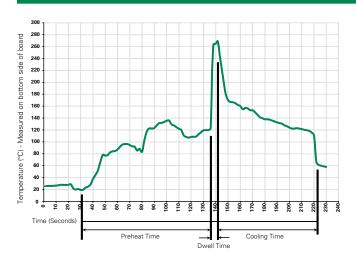


Note: 1. Rerating depicted in this curve is in addition to the standard derating of 25% for continuous operation.

#### **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.**

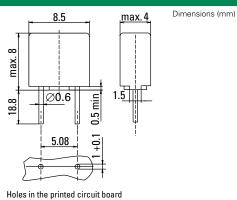


#### **Product Characteristics**

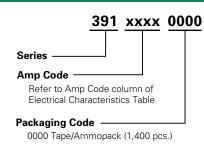
Materials	Base/Cap: Brown Thermoplastic Polyamide PA 6.6, UL 94V-0 Round Pins: Copper, Tin-plated		
Lead Pull Strength	10 N (EN 60068-2-21)		
Solderability	260°C, $\leq$ 3s. (Wave) 350°C, $\leq$ 1s. (Soldering Iron)		
Soldering Heat Resistance	260°C, 10s. (IEC 60068-2-20) 350°C, 3s. (Soldering Iron)		

Operating Temperature	-40°C to +85°C (consider re-rating)		
Climatic Category	-40°C to +85°C/21 days (IEC 60068-1,-2-1,-2-2,-78)		
	+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 - 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			
391 Series							
Tape & Ammopack	N/A	1,400	0000	N/A			