



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!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



216SP Series, 5x20 mm, Fast Acting Fuse



Description

5x20mm fast acting ceramic body cartridge fuse Designed to IEC specification

Features

- Designed to International (IEC) Standards for use globally
- High breaking capacity
- Meets the IEC 60127-2, Sheet 1 specification for Fast-Acting fuses
- RoHS compliant and lead-free

Applications

Used as supplementary protection in appliance or utilization equipment to provide individual protection for components or internal circuits.

Agency Approvals

Agency		Ampere Range
	NBK080205-E10480B NBK250702-E10480F	1A – 5A 6.3A – 10A
	CQC10012049970	1A – 10A
	SU05001-11001A SU05001-11002A	1A – 2.5A 3.15A – 6.3A
	E10480	1A – 10A
	29862	1A – 10A
	40013834	1 – 6.3A
	J50248090	8A/10A
	N/A	1A – 10A

Electrical Characteristics for Series

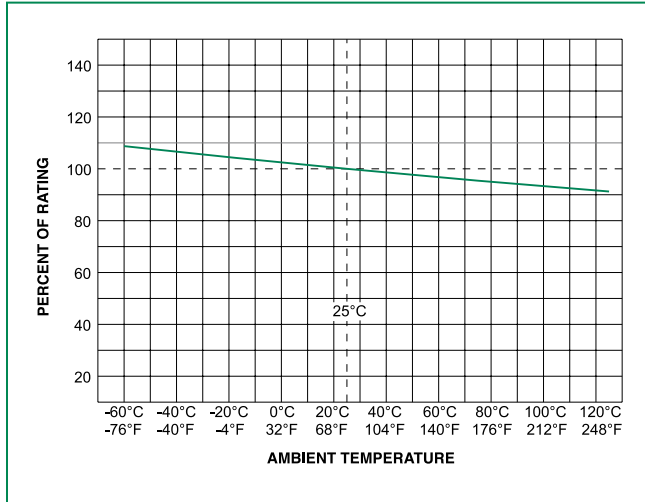
% of Ampere Rating	Ampere Rating	Opening Time
210%	1A – 4A	30 minutes, Maximum
	5A – 6.3A	30 minutes, Maximum
	8A – 10A	30 minutes, Maximum
275%	1A – 4A	0.01 sec., Min.; 2 sec. Max.
	5A – 6.3A	0.01 sec., Min.; 3 sec. Max.
	8A – 10A	0.04 sec., Min.; 20 sec. Max.
400%	1A – 4A	.003 sec., Min.; 0.3 sec. Max.
	5A – 6.3A	.003 sec., Min.; 0.3 sec. Max.
	8A – 10A	.01 sec., Min.; 1.0 sec. Max.
1000%	1A – 4A	.02 seconds, Maximum
	5A – 6.3A	.02 seconds, Maximum
	8A – 10A	.03 sec.onds, Maximum

Electrical Characteristic Specifications by Item

Amp Code	Amp Rating	Voltage Rating	Interrupting Rating	Nominal Resistance Cold Ohms (Ohms)	Nominal Melting I ² t (A ² sec)	Maximum Voltage Drop at Rated Current (mV)	Maximum Power Dissipation at 1.5I _n (W)	Agency Approvals							
001	1	250	1500 A @ 250 VAC	0.2370	0.18000	1000	2.5	x	x	x	x	x	x		x
01.6	1.6	250		0.1112	1.00500	600	4	x	x	x	x	x	x		x
002	2	250		0.0764	1.87000	500	4	x	x	x	x	x	x		x
02.5	2.5	250		0.0584	3.67200	400	4	x	x	x	x	x	x		x
3.15	3.15	250		0.0368	6.70000	350	4	x	x	x	x	x	x		x
004	4	250		0.0247	14.99500	300	4	x	x	x	x	x	x		x
005	5	250		0.0183	27.46000	250	4	x	x	x	x	x	x		x
06.3	6.3	250		0.0137	56.43000	200	4	x	x	x	x	x	x		x
008	8	250		0.0123	64.31500	200	4	x	x		x	x		x	x
010	10	250		0.0079	154.34000	200	4	x	x		x	x		x	x

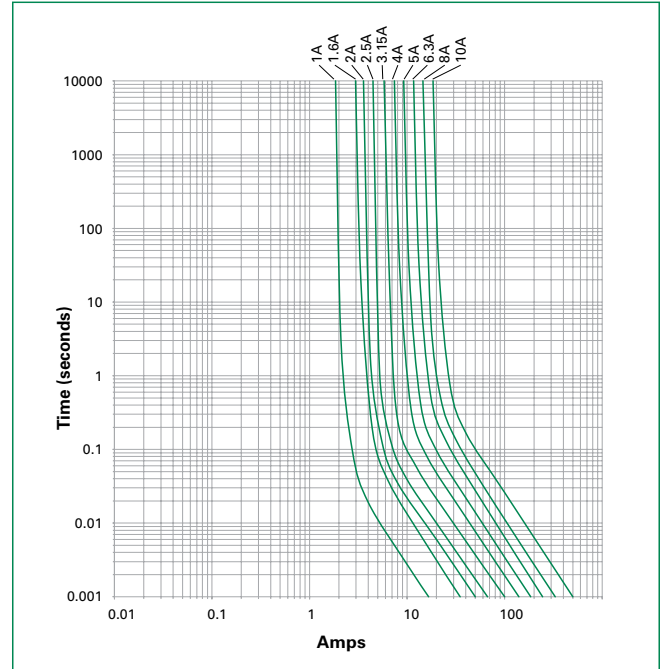
I²t test at 10x rated current

Temperature Re-rating Curve

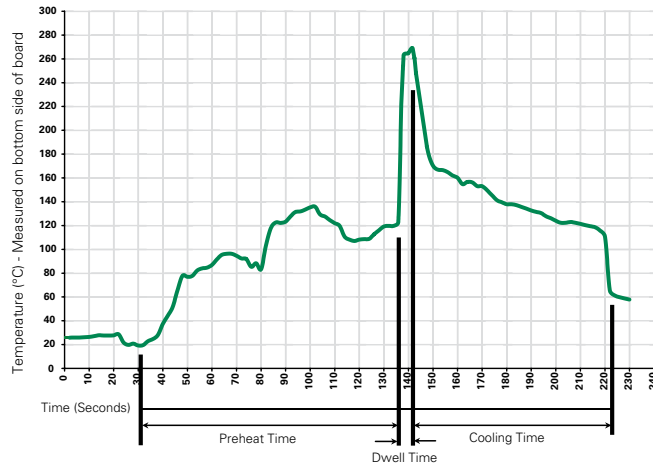


Note:
Rerating depicted in this curve is in addition to the standard derating of 25% for continuous operation.

Average Time Current Curves



Soldering Parameters - Wave Soldering



Recommended Process Parameters:

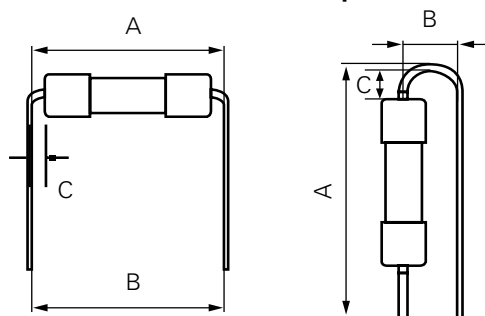
Wave Parameter	Lead-Free Recommendation
Preheat: (Depends on Flux Activation Temperature) (Typical Industry Recommendation)	
Temperature Minimum:	100°C
Temperature Maximum:	150°C
Preheat Time:	60-180 seconds
Solder Pot Temperature:	260°C Maximum
Solder Dwell Time:	2-5 seconds

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.

Different values of A and B available, please contact the Littelfuse sales representative in your region:



For the pigtailed fuse, please follow the recommendations below for axial lead forming and mounting into PCB:

Lead forming:

The distance C between cap flat surface and axial lead shall be greater than 1.0 mm.

PCB mounting:

According to the standard of IPC-A-610, the distance between PCB and fuse cap is recommended to be a minimum of 1.5 mm.

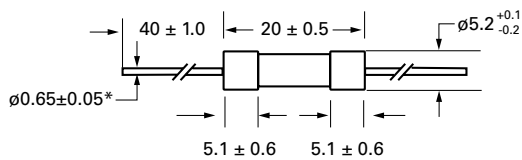
Product Characteristics

Materials	Body: Ceramic Cap: Nickel-plated Brass Leads: Tin-plated Copper
Terminal Strength	MIL-STD-202, Method 211, Test Condition A
Solderability	MIL-STD-202 Method 208
Product Marking	Cap 1: Brand logo, current and voltage ratings Cap 2: Agency approval marks

Operating Temperature	-55°C to +125°C
Thermal Shock	MIL-STD-202, Method 107, Test Condition B (5 cycles, -65°C to +125°C)
Vibration	MIL-STD-202, Method 201
Humidity	MIL-STD-202, Method 103, Test Condition A (High RH (95%) and elevated temp (40°C) for 240 hours)
Salt Spray	MIL-STD-202, Method 101, Test Condition B

Dimensions

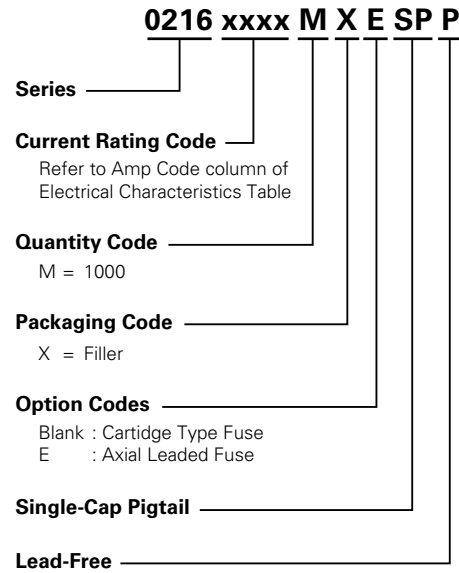
All dimensions in mm



Notes:

* Ratings 8A and 10A have 0.8 ± 0.05 diameter lead.

Part Numbering System



Packaging

Packaging Option	Packaging Specification	Quantity	Packaging Code	Reel Size
216SP Series				
Bulk	N/A	1000	MXE	N/A

Additional Information



Datasheet



Resources



Samples