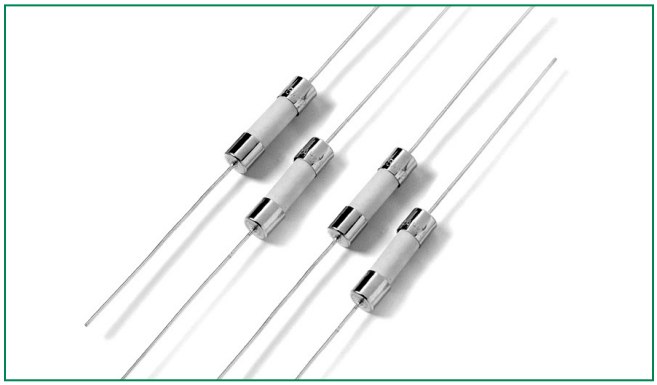
216SP Series, 5x20 mm, Fast Acting Fuse



Description

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

Features

- Designed to International (IEC) Standards for use globally
- Meets the IEC 60127-2,Sheet 1 specification for Fast-Acting Fuses.
- RoHS compliant and Pb-free

Applications

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

Agency Approvals

Agency	Agency File Number		Ampere Range
PSE	Certificate No.	Leaded NBK080205-E10480B NBK250702-E10480F	1A – 5A 6.3A – 10A
cqc	Certificate No.	CQC10012049970	1A – 10A
KC	Certificate No.	SU05001-11001A SU05001-11002A	1A – 2.5A 3.15A – 6.3A
UL	Recognised File No. Guide No.	E10480 JDYX2	1A – 10A
CSA	File No. Acc. Class No.	029862 LR1422-30	1A – 10A
VDE	Licence. No.	40013834	1 – 6.3A
CE			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^2t (A^2 sec)	Maximum Voltage Drop at Rated Current (mV)	Maximum Power Dissipation at Rated Current (W)	Agency Approvals						
								PSE	cqc	KC	UL	CSA	VDE	CE
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	2.69500	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
010	10	250		0.0079	154.34000	200	4	x	x		x	x		x

I^2t test at 10x rated current

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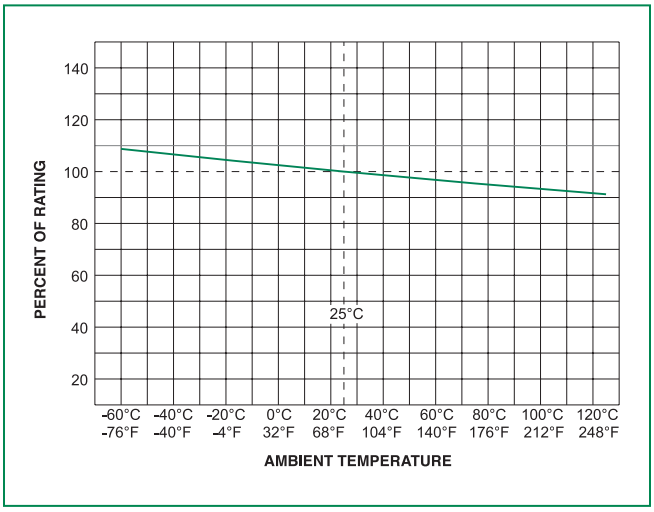
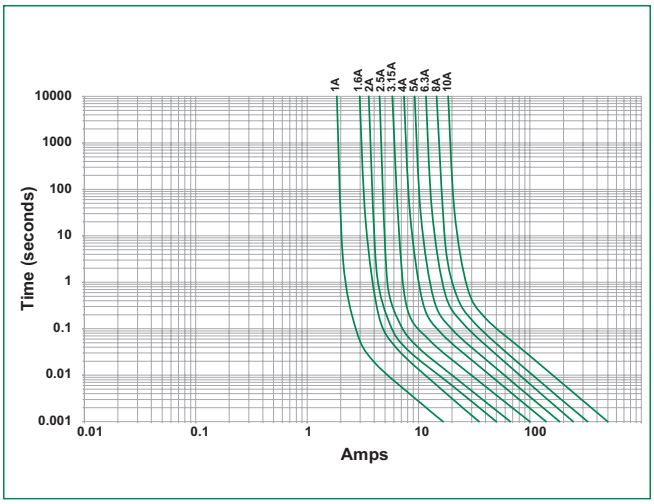
Please refer to www.littelfuse.com/series/216SP.html for current information.

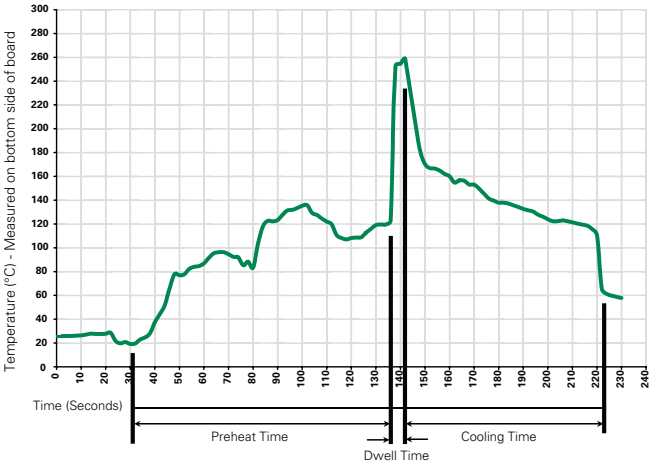
Temperature Rerating Curve



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:	280° 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.

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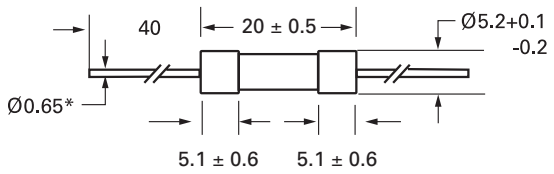
Product Characteristics

Materials	**Body:** Ceramic **Cap:** Nickel–plated Brass **Leads:** Tin–plated Copper
Terminal Strength	MIL-STD-202G, Method 211A, Test Condition A
Solderability	Reference IEC 60127 Second Edition 2003-01 Annex A
Product Marking	**Cap 1:** Brand logo, current and voltage ratings **Cap 2:** Agency approval marks

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

Dimensions



* 8A and 10A have 0.8mm diameter

All unit in mm.

Part Numbering System

0216 xxxx M X E SP P

Series

Current Rating Code
Refer to Amp Code column of Electrical Characteristics Table

Quantity Code
M = 1000

Packaging Code
X = Filler

Option Codes
Blank : Cartidge Type Fuse
E : Axial Leaded Fuse

Single Pigtail

Lead-free

Packaging

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

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