# **Axial Lead & Cartridge Fuses**

5×20 mm > Time-Lag Fuse > 215SP Series

### 215SP Series, 5×20 mm, Time-Lag Fuse





#### **Description**

The 215SP Series is a 5x20m Time-lag, surge withstanding ceramic body, axial-leaded cartridge fuse designed to IEC specifications.

#### **Features**

- High breaking capacity
- RoHS compliant and lead-free
- Meets Standard Sheet 5 of IEC 60127-2 as a Time-Lag fuse

#### **Agency Approvals**

Agency	Agency File Number	Ampire Range
PS	NBK080205-E10480B NBK250702-E10480F	1A – 5A 6.3A – 10A
<b>(1)</b>	CCC self-declaration No.: 2020970207000048	1A - 10A
	SU05001-2011B SU05001-10001 SU05001-10002 SU05001-2012B	1A – 2.5A 3.15A – 6.3A 8A 10A
c <b>FL</b> °us	E10480	1A – 10A
<b>®</b> ;	29862	1A – 10A
Ď <sup>V</sup> E	40013521	1A – 8A
<b>A</b>	J50248091	10A
Œ	N/A	1A – 10A

#### **Applications**

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

#### **Additional Information**







Samples

#### **Electrical Characteristics for Series**

% of Ampere Rating	Ampere Rating	Opening Time
	1A - 3.15A	30 minutes, Maximum
210%	4A - 6.3A	30 minutes, Maximum
	8A - 10A	30 minutes, Maximum
275%	1A - 3.15A	0.75 sec. Min.; 80 secs. Max.
	4A - 6.3A	0.75 sec. Min.; 80 secs. Max.
	8A - 10A	0.75 sec. Min.; 80 secs. Max.
400%	1A - 3.15A	0.095 sec. Min.; 5 secs. Max.
	4A - 6.3A	0.150 sec. Min.; 5 secs. Max.
	8A - 10A	0.150 sec. Min.; 5 secs. Max.
1000%	1A - 3.15A	0.010 sec. Min.; .150 secs. Max.
	4A - 6.3A	0.010 sec. Min.; .150 secs. Max.
	8A - 10A	0.010 sec. Min.; .150 secs. Max.

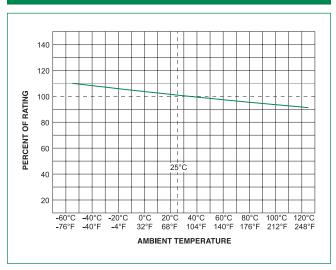
#### **Electrical Characteristic Specifications by Item**

				Nominal		Maximum Maximum				Α	gency A	Approva	ıls		
Amp Code	Amp Rating	Voltage Rating	Interrupting Rating**	Resistance Cold Ohms (Ohms)	Nominal Melting I <sup>2</sup> t* (A <sup>2</sup> sec)	Voltage Drop at Rated Current (mV)	Power Dissapation at 1.5In (W)	PS E	<b>(1)</b>		c <b>AN</b> us	<b>(P</b> )		<b>A</b>	Œ
001.	1	250		0.1515	1.52000	350	2.5	Х	Х	Х	Х	Х	Х	-	Х
1.25	1.25	250		0.1074	3.20000	300	2.5	Х	Х	Х	Х	Х	Х	-	Х
01.6	1.6	250		0.0707	6.83000	200	2.5	Х	Х	Х	Х	Х	Х	-	Х
002.	2	250		0.0566	11.68000	190	2.5	Х	Х	Х	Х	Х	Х	-	Х
02.5	2.5	250	4500 4 @	0.0386	22.29000	180	2.5	Х	Х	Х	Х	Х	Х	-	Х
3.15	3.15	250	1500 A @ 250 VAC	0.0283	43.25500	140	4	Х	Х	Х	Х	Х	Х	-	Х
004.	4	250	250 VAC	0.0185	46.96000	100	4	Х	Х	Х	Х	Х	Х	-	Х
005.	5	250		0.0153	66.09500	100	4	Х	Х	Х	Х	Х	Х	-	Х
06.3	6.3	250		0.0108	128.75000	100	4	Х	Х	Х	Х	Х	Х	-	Х
008.	8	250		0.0092	209.88000	100	4	Х	Х	Х	Х	Х	Х	-	Х
010.	10	250		0.0066	333.56500	100	4	Х	Х	Х	Х	Х	-	Х	×

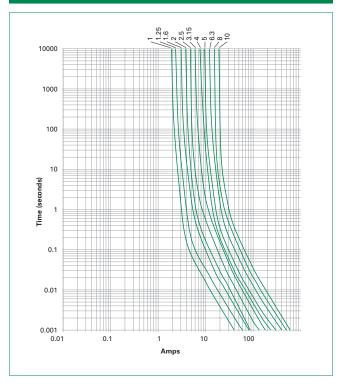
<sup>\*12</sup>t test at 10x rated current
\*\*\* Interrupting Rating may differ based on Agency Approval. See Agency Approval certificate for more details.



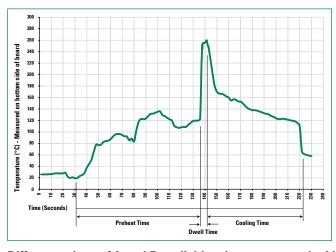
#### **Temperature Re-rating Curve**



#### **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:	260°C Maximum
Solder Dwell Time:	2-5 seconds

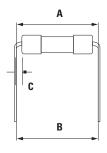
#### Recommended Hand-Solder Parameters:

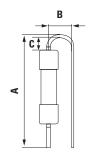
Solder Iron Temperature: 350°C +/- 5°C

Heating Time: 5 seconds max.

 $\textbf{Note:} \ \ \text{These devices are not recommended for IR or Convection Reflow process.}$ 

#### 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:

The distance between PCB and fuse cap is recommended to be a minimum of 1.5 mm.  $\,$ 

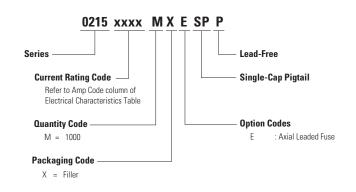
# Axial Lead & Cartridge Fuses 5×20 mm > Time-Lag Fuse > 215SP Series

#### **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

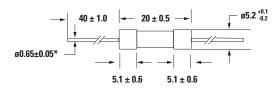
Operating Temperature	-55°C to +125°C
Thermal Shock	MIL-STD-202, Method 107, Test Condition B (5 cycles, -65°C to +125°C)
Vibration	MIL-STD-202, Method 201
Humidity	MIL-STD-202, Method 103, Test Condition A (High RH (95%) and elevated temp (40°C) for 240 hours)
Salt Spray	MIL-STD-202, Method 101, Test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

#### **Part Numbering System**



#### **Dimensions**

All dimensions in mm



#### Notes:

# Packaging Option Packaging Specification Quantity Packaging Code Reel Size 215SP Series Bulk N/A 1000 MXE N/A

Disclaimer Notice - Littelfuse products are not designed for, and shall not be used for, any purpose (including, without limitation, automotive, military, aerospace, medical, life-saving, life-saving,

<sup>\*</sup> Ratings 8A and 10A have  $0.8 \pm 0.05$  diameter lead.

## 单击下面可查看定价,库存,交付和生命周期等信息

# >>Littelfuse(美国力特)