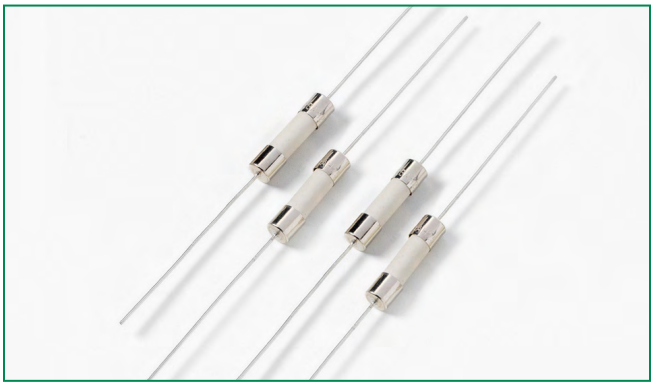
215SP Series, 5×20 mm, Time-Lag Fuse



Agency Approvals

AGENCY	AGENCY FILE NUMBER	AMPERE RANGE
	NBK080205-E10480B NBK250702-E10480F	1A – 5A 6.3A – 10A
	CQC10012041490	1A – 6.3A
	SU05001-2011B SU05001-10001 SU05001-10002	1A – 2.5A 3.15A – 6.3A 8A
	E10480	1A – 10A
	29862	1A – 10A
	40013521	1 – 10A
	J50248091	10A
	N/A	1A – 10A

Description

5×20mm Time-Lag surge withstanding ceramic body cartridge fuse designed to IEC specification

Features

- Designed to International (IEC) Standards for use globally
- RoHS compliant and Pb-free
- Meets the IEC 60127-2, Sheet 5 specification for Time-Lag Fuses

Applications

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

Electrical Characteristics for Series

% of Ampere Rating	Ampere Rating	Opening Time
210%	1A - 3.15A	30 minutes, Maximum
	4A - 6.3A	30 minutes, Maximum
	8A - 10A	30 minutes, Maximum
275%	1A - 3.15A	.75 sec. Min.; 80 secs. Max.
	4A - 6.3A	.75 sec. Min.; 80 secs. Max.
	8A - 10A	.75 sec. Min.; 80 secs. Max.
400%	1A - 3.15A	.095 sec. Min.; 5 secs. Max.
	4A - 6.3A	.150 sec. Min.; 5 secs. Max.
	8A - 10A	.150 sec. Min.; 5 secs. Max.
1000%	1A - 3.15A	.010 sec. Min.; .150 secs. Max.
	4A - 6.3A	.010 sec. Min.; .150 secs. Max.
	8A - 10A	.010 sec. Min.; .150 secs. Max.

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 Dissapation at 1.5In (W)	Agency Approvals							
001	1	250	1500 A @ 250 VAC	0.1515	1.52000	350	2.5	x	x	x	x	x	x		x
1.25	1.25	250		0.1074	3.20000	300	2.5	x	x	x	x	x	x		x
01.6	1.6	250		0.0707	6.83000	200	2.5	x	x	x	x	x	x		x
002	2	250		0.0566	11.68000	190	2.5	x	x	x	x	x	x		x
02.5	2.5	250		0.0386	22.29000	180	2.5	x	x	x	x	x	x		x
3.15	3.15	250		0.0283	43.25500	140	4	x	x	x	x	x	x		x
004	4	250		0.0185	46.96000	100	4	x	x	x	x	x	x		x
005	5	250		0.0153	66.09500	100	4	x	x	x	x	x	x		x
06.3	6.3	250		0.0108	128.75000	100	4	x	x	x	x	x	x		x
008	8	250		0.0092	209.88000	100	4	x		x	x	x	x		x
010	10	250		0.0066	333.56500	100	4	x			x	x	x	x	x

I^2t test at 10x rated current

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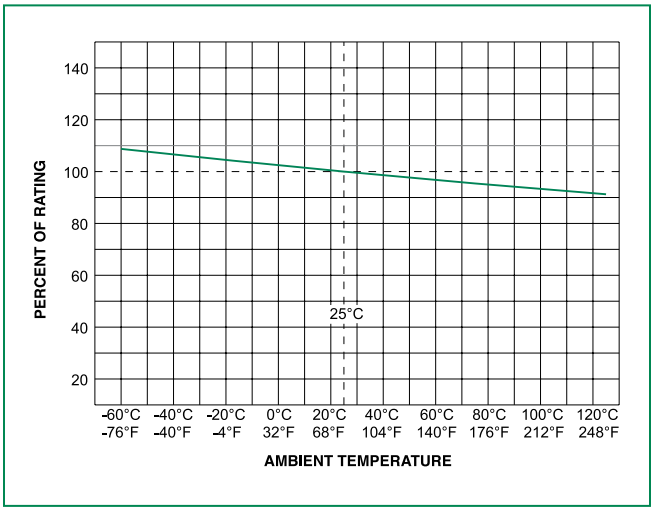
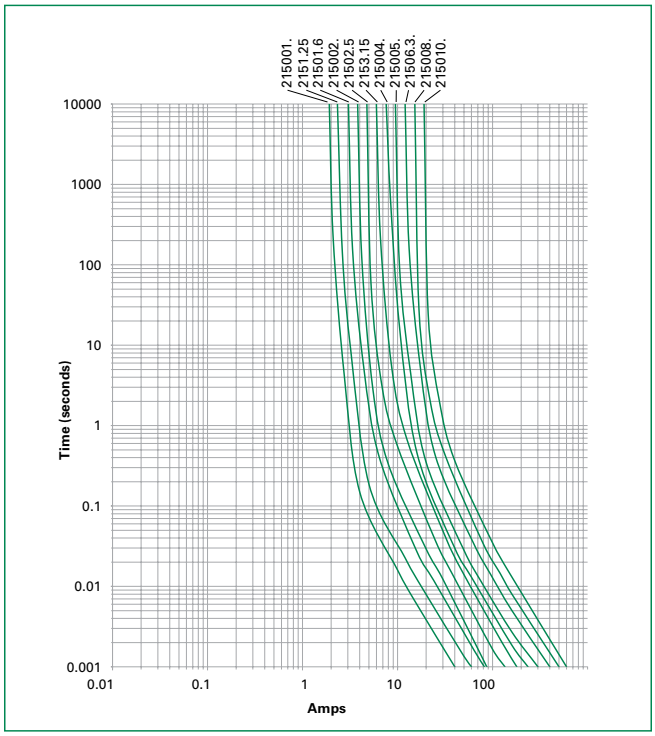
Temperature Re-rating Curve

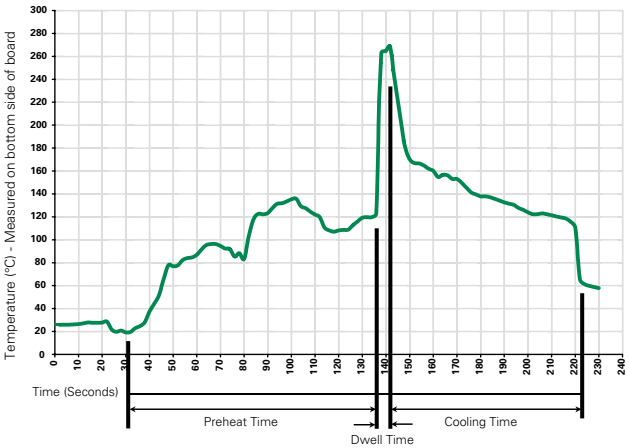


Note:
Rerating depicted in this curve is in addition to the standard derating of 25% for continuous operation.

Average Time Current Curves



Soldering Parameters - Wave Soldering



Recommended Process Parameters:

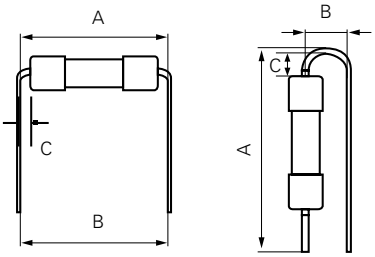
Wave Parameter	Lead-Free Recommendation
Preheat: (Depends on Flux Activation Temperature)	(Typical Industry Recommendation)
Temperature Minimum:	100°C
Temperature Maximum:	150°C
Preheat Time:	60-180 seconds
Solder Pot Temperature:	260°C Maximum
Solder Dwell Time:	2-5 seconds

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:

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

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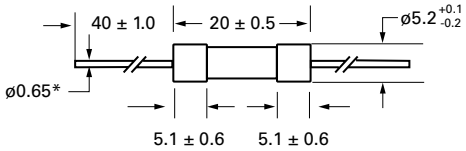
Product Characteristics

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

0215 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-Cap Pigtail

Lead-Free

Packaging

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

Additional Information

Datasheet | **Resources** | **Samples**

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Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
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Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.

Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)
Факс: 8 (812) 320-02-42
Электронная почта: org@eplast1.ru
Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.