













215 Series, 5x20 mm, Time-Lag Fuse



Agency Approvals

| Agency | Agency File Number | Ampere Range |
|---|---|------------------------------------|
|  | Cartridge: NBK080205-E10480A NBK250702-E10480E NBK100408-JP1021A | 1A – 5A 6.3A – 15A 16A – 20A |
| | Leaded: NBK080205-E10480B NBK250702-E10480F NBK100408-JP1021B | 1A – 5A 6.3A – 15A 16A – 20A |
|  | 2005010207145714 | 1A – 6.3A |
|  | CQC07012021808 | 8A – 10A |
|  | SU05001-2011B | 1A – 2.5A |
| | SU05001-10001 | 3.15A – 6.3A |
| | SU05001-10002 | 8A |
| | SU05001-2012B | 4A – 10A |
|  | E10480 | 0.125A - 20A |
|  | 29862 | 0.5A – 12A |
|  | 1517218 | 0.125A-12A |
| | | 15A*, 16A*, 20A* |
|  | 40013521 | 0.2A – 8A *10A |
|  | 40016610 | *12A |
|  | KM41462 | 0.200A – 10A |
|  | J50258578 | 16A/20A |
|  | N/A | 0.125A – 20A |

* Approved for cartridge versions only

Description

5x20mm Time-Lag surge withstand 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 5 specification for Time-Lag 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.

Additional Information



Datasheet



Resources



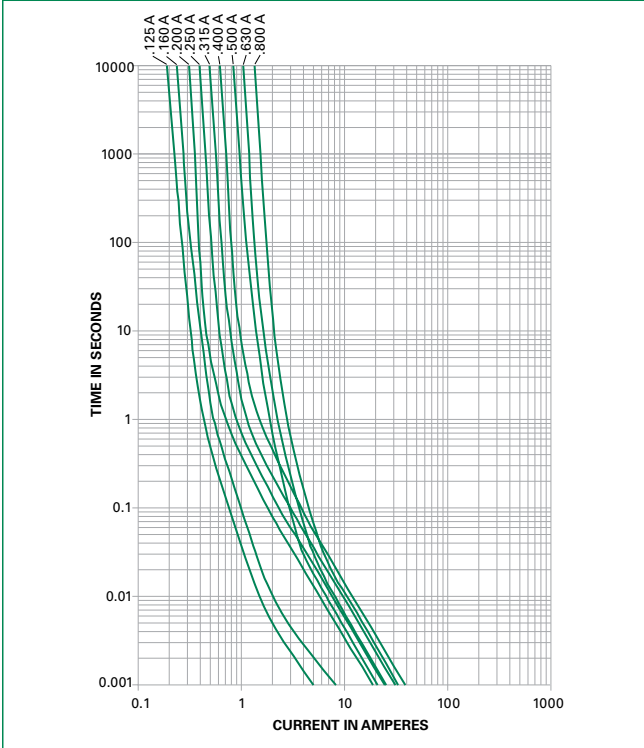
Samples

Electrical Characteristics for Series

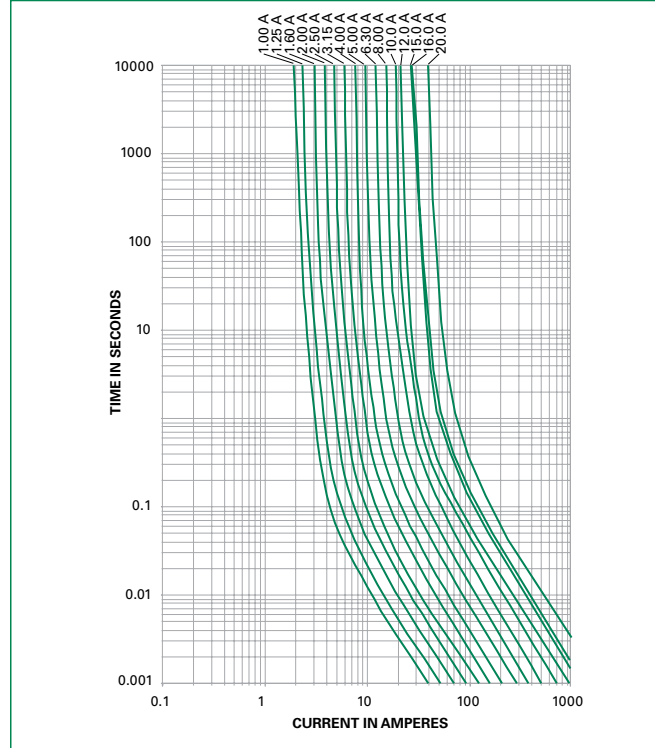
| % of Ampere Rating | Ampere Rating | Opening Time |
|--------------------|-----------------|---------------------------------|
| 150% | 0.125A – 0.800A | 60 minutes, Minimum |
| | 1A – 3.15A | 60 minutes, Minimum |
| | 4A – 6.3A | 60 minutes, Minimum |
| | 8A – 20A | 30 minutes, Minimum |
| 210% | 0.125A – 0.800A | 30 minutes, Maximum |
| | 1A – 3.15A | 30 minutes, Maximum |
| | 4A – 6.3A | 30 minutes, Maximum |
| | 8A – 20A | 30 minutes, Maximum |
| 275% | 0.125A – 0.800A | .25 sec. Min.; 80 secs. Max. |
| | 1A – 3.15A | .75 sec. Min.; 80 secs. Max. |
| | 4A – 6.3A | .75 sec. Min.; 80 secs. Max. |
| | 8A – 20A | .75 sec. Min.; 80 secs. Max. |
| 400% | 0.125A – 0.800A | .05 sec., Min.; 5 secs. Max. |
| | 1A – 3.15A | .095 sec., Min.; 5 secs. Max. |
| | 4A – 6.3A | .150 sec., Min.; 5 secs. Max. |
| | 8A – 20A | .150 sec., Min.; 5 secs. Max. |
| 1000% | 0.125A – 0.800A | .005 sec., Min.; .150 sec. Max. |
| | 1A – 3.15A | .010 sec., Min.; .150 sec. Max. |
| | 4A – 6.3A | .010 sec., Min.; .150 sec. Max. |
| | 8A – 20A | .010 sec., Min.; .150 sec. Max. |

Average Time Current Curves

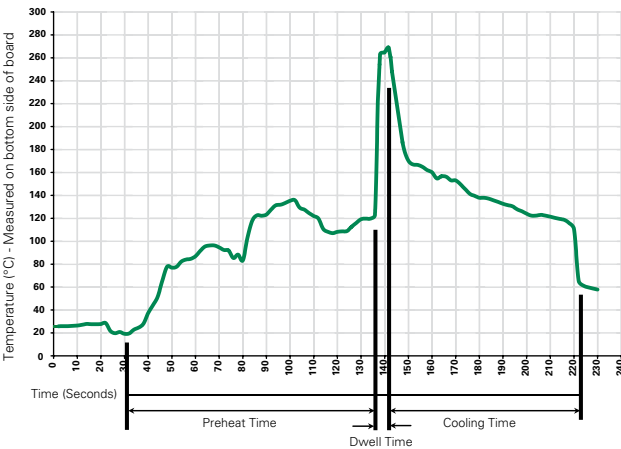
T-C Curves for 125mA to 800mA only



T-C Curves for 1A to 20A only



Soldering Parameters - Wave Soldering



Recommended Process Parameters:

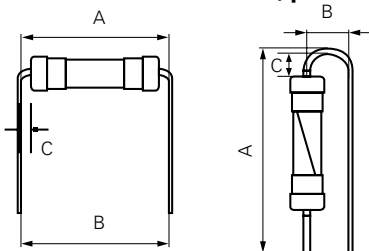
| Wave Parameter | Lead-Free Recommendation |
|---|--------------------------|
| Preheat: (Depends on Flux Activation Temperature) (Typical Industry Recommendation) | |
| Temperature Minimum: | 100° C |
| Temperature Maximum: | 150° C |
| Preheat Time: | 60-180 seconds |
| Solder Pot Temperature: | 260°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

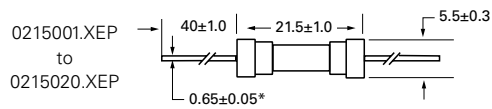
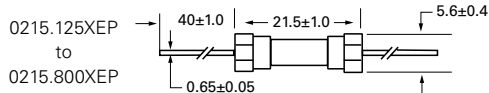
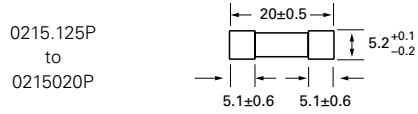
The distance between PCB and fuse cap is recommended to be a minimum of 1.5 mm.

Axial Lead & Cartridge Fuses

5x20 mm > Time-Lag > 215 Series

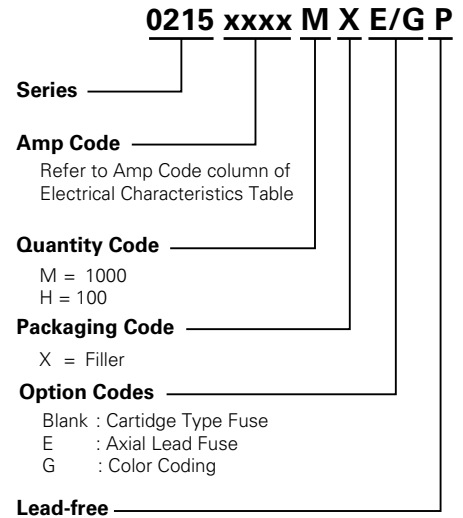
Dimensions

All dimensions in mm



Notes:
* Ratings above 6.3 A have 0.8 ± 0.05 diameter lead;
* Ratings above 12 A have 1.2 ± 0.05 diameter lead.

Part Numbering System



Packaging

| Packaging Option | Packaging Specification | Quantity | Quantity & Packaging Code | Taping Width |
|-----------------------|-------------------------|----------|---------------------------|------------------|
| 215 Series | | | | |
| Bulk | N/A | 1000 | MX | N/A |
| Bulk | N/A | 1000 | MXE | N/A |
| Reel and Tape | N/A | 1000 | MRET1 | T1=53mm (2.087") |
| Bulk and Color Coding | N/A | 1000 | MXG | N/A |
| Bulk | N/A | 1000 | MXB | N/A |
| Bulk | N/A | 100 | HX | N/A |