

**RoHS** **Pb** **213 Series, 5 x 20 mm, Time-Lag (Slo-Blo®) Fuse**


### Description

5x20mm time-Lag surge withstand glass body cartridge fuse designed to IEC specification.

### Features

- Designed to International (IEC) Standards for use globally
- Available in cartridge and axial lead form
- Meets the IEC 60127-2, Sheet 3 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.

### Agency Approvals

| Agency                                                                              | Agency File Number                                                                              | Ampere Range        |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|---------------------|
|    | Cartridge Certificates:<br>NBK120802-E10480 A&C<br>Leaded Certificates:<br>NBK120802-E10480 B&D | 1A – 5A<br><br>6.3A |
|    | Certificates:<br>2003010207045592                                                               | 200mA – 6.3A        |
|   | Recognised File:<br>E10480<br>Guide:<br>JDYX2                                                   | 200mA – 6.3A        |
|  | File:<br>029862<br>Acc. Class:<br>LR1422-30                                                     |                     |
|  | File:<br>915515,811747                                                                          |                     |
|  | License:<br>40015638                                                                            | 200mA – 4A, 6.3A    |
|  | License:<br>KM41462                                                                             | 200mA – 6.3A        |
|  |                                                                                                 | 200mA – 6.3A        |

### Electrical Characteristic for Series

| % of Ampere Rating | Ampere Rating | Opening Time                   |
|--------------------|---------------|--------------------------------|
| 150%               | All Ratings   | 60 minutes, Minimum            |
| 210%               |               | 2 minutes, Maximum             |
| 275%               |               | 0.6 sec., Min.; 10 sec. Max.   |
| 400%               |               | .15 sec., Min.; 3 sec. Max.    |
| 1000%              |               | 0.02 sec., Min.; 0.3 sec. Max. |

### Electrical Characteristic Specifications by Item

| Amp Code | Ampere Rating | Voltage Rating (V) | Interrupting Rating | Nominal Cold Resistance (Ohms) | Nominal Melting I <sup>2</sup> t (A <sup>2</sup> sec) | Nominal Voltage Drop (mV) | Nominal Power Dissipation (W) | Agency Approvals                                                                      |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |   |
|----------|---------------|--------------------|---------------------|--------------------------------|-------------------------------------------------------|---------------------------|-------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---|
|          |               |                    |                     |                                |                                                       |                           |                               |  |  |  |  |  |  |  |  |   |
| .200     | 0.2           | 250                | 35A@250Vac          | 1.6000                         | 0.22500                                               | 1500                      | 1.6                           | x                                                                                     | x                                                                                     |                                                                                       | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     |   |
| .250     | 0.25          | 250                |                     | 1.0495                         | 0.55500                                               | 1300                      | 1.6                           | x                                                                                     | x                                                                                     |                                                                                       | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x |
| .315     | 0.315         | 250                |                     | 0.8475                         | 1.14000                                               | 1100                      | 1.6                           | x                                                                                     | x                                                                                     |                                                                                       | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x |
| .400     | 0.4           | 250                |                     | 0.5350                         | 1.36000                                               | 1000                      | 1.6                           | x                                                                                     | x                                                                                     |                                                                                       | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x |
| .500     | 0.5           | 250                |                     | 0.3700                         | 2.90500                                               | 900                       | 1.6                           | x                                                                                     | x                                                                                     |                                                                                       | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x |
| .630     | 0.63          | 250                |                     | 0.2750                         | 4.80000                                               | 300                       | 1.6                           | x                                                                                     | x                                                                                     |                                                                                       | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x |
| .800     | 0.8           | 250                |                     | 0.1635                         | 9.42000                                               | 250                       | 1.6                           | x                                                                                     | x                                                                                     |                                                                                       | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x |
| 001.     | 1             | 250                |                     | 0.1165                         | 19.20000                                              | 150                       | 1.6                           | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x |
| 1.25     | 1.25          | 250                |                     | 0.0817                         | 27.15000                                              | 150                       | 1.6                           | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x |
| 01.6     | 1.6           | 250                |                     | 0.0551                         | 44.20000                                              | 150                       | 1.6                           | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x |
| 002.     | 2             | 250                |                     | 0.0452                         | 92.70500                                              | 150                       | 1.6                           | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x |
| 02.5     | 2.5           | 250                |                     | 0.0305                         | 138.00000                                             | 120                       | 1.6                           | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x |
| 3.15     | 3.15          | 250                |                     | 0.0231                         | 202.00000                                             | 100                       | 1.6                           | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x |
| 004.     | 4             | 250                |                     | 40A@250Vac                     | 0.0170                                                | 226.50500                 | 100                           | 1.6                                                                                   | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x |
| 005.     | 5             | 250                | 50A@250Vac          | 0.0116                         | 314.00000                                             | 100                       | 1.6                           | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     |   |
| 06.3     | 6.3           | 250                | 63A@250Vac          | 0.0095                         | 600.00000                                             | 100                       | 1.6                           | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     | x                                                                                     |   |

### Temperature Derating Curve



### Average Time Current Curves



### Soldering Parameters - Wave Soldering



#### Recommended Process Parameters:

| Wave Parameter                                              | Lead-Free Recommendation          |
|-------------------------------------------------------------|-----------------------------------|
| <b>Preheat:</b><br>(Depends on Flux Activation Temperature) | (Typical Industry Recommendation) |
| Temperature Minimum:                                        | 100° C                            |
| Temperature Maximum:                                        | 150° C                            |
| Preheat Time:                                               | 60-180 seconds                    |
| <b>Solder Pot Temperature:</b>                              | 260° C Maximum                    |
| <b>Solder Dwell Time:</b>                                   | 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.**

### Product Characteristics

|                          |                                                                             |
|--------------------------|-----------------------------------------------------------------------------|
| <b>Material</b>          | Body: Glass<br>Cap: Nickel-plated brass<br>Leads: Tin-plated Copper         |
| <b>Terminal Strength</b> | MIL-STD-202G, Method 211A, Test Condition A                                 |
| <b>Solderability</b>     | Reference IEC 60127, Second Edition 2003-01, Annex A                        |
| <b>Product Marking</b>   | Cap1: Brand logo, current and voltage<br>Cap2: Agency approval marks Series |
| <b>Packaging</b>         | Available in Bulk (M=1000 pcs/pkg) or on Tape/Reel (MRET1=1000 pcs/reel)    |

|                              |                                                                                                           |
|------------------------------|-----------------------------------------------------------------------------------------------------------|
| <b>Operating Temperature</b> | -55°C to +125°C                                                                                           |
| <b>Thermal Shock</b>         | MIL-STD-202G, Method 107G, Test Condition B: (5 cycles -65°C to +125°C)                                   |
| <b>Vibration</b>             | MIL-STD-202G, Method 201A                                                                                 |
| <b>Humidity</b>              | MIL-STD-202G, Method 103B, Test Condition A. High RH (95%) and elevated temperature (40°C) for 240 hours. |
| <b>Salt Spray</b>            | MIL-STD-202G, Method 101D, Test Condition B                                                               |

### Dimensions

0213 000P



0213 000 XEP



All dimensions in mm

Notes:

\* Ratings above 6.3A have 0.8 mm dia lead

### Part Numbering System



### Packaging

| Packaging Option  | Packaging Specification | Quantity | Quantity & Packaging Code | Taping Width     |
|-------------------|-------------------------|----------|---------------------------|------------------|
| <b>213 Series</b> |                         |          |                           |                  |
| Bulk              | N/A                     | 1000     | MX                        | N/A              |
| Bulk              | N/A                     | 1000     | MXE                       | N/A              |
| Reel and Tape     | N/A                     | 1000     | MRET1                     | T1=52mm (2.062") |
| Bulk              | N/A                     | 1000     | MXG                       | N/A              |
| Bulk              | N/A                     | 1000     | MXB                       | N/A              |
| Bulk              | N/A                     | 100      | HX                        | N/A              |

## Данный компонент на территории Российской Федерации

### Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

### Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: [info@moschip.ru](mailto:info@moschip.ru)

Skype отдела продаж:

moschip.ru

moschip.ru\_4

moschip.ru\_6

moschip.ru\_9