

### 618 Series, 5x20 mm, Time-Lag Fuse



#### Description

5x20mm Time-Lag glass body cartridge fuse designed to IEC specification.

#### Features

- Designed to International (IEC) Standards for use globally
- Meets the IEC 60127-2, Sheet 3 specification for Time-Lag fuses
- Available in cartridge and axial lead form
- 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 |
|---|--------------------|--------------|
|    | 2005010207170553   | 0.125A-6.3A  |
|    | E10480             | 0.125A-10A   |
|    | 29862              | 0.125A-10A   |
|  | 40013496           | 0.125A – 10A |
|  | N/A                | 0.125A-10A   |

\* Approval for Cartridge versions only

#### Additional Information



Datasheet



Resources



Samples

#### Electrical Characteristics

| % of Ampere Rating | Ampere Rating | Opening Time                |
|--------------------|---------------|-----------------------------|
| 150%               | 0.125A-6.3A   | 60 minutes, Minimum         |
|                    | 8A-10A        | 30 minutes, Minimum         |
| 210%               | 0.125A-6.3A   | 120 sec., Maximum           |
|                    | 8A-10A        | 120 sec., Maximum           |
| 275%               | 0.125A-6.3A   | 600 ms., Min.; 10 sec. Max. |
|                    | 8A-10A        | 600 ms., Min.; 10 sec. Max. |
| 400%               | 0.125A-6.3A   | 150 ms., Min.; 3 sec. Max.  |
|                    | 8A-10A        | 150 ms., Min.; 3 sec. Max.  |
| 1000%              | 0.125A-6.3A   | 20 ms., Min.; 300 ms. Max.  |
|                    | 8A-10A        | 20 ms., Min.; 300 ms. Max.  |

# Axial Lead & Cartridge Fuses

5x20 mm > Time-Lag > 618 Series

## Electrical Characteristics

| Amp Code | Amp Rating (A) | Voltage Rating (V) | Interrupting Rating | Nominal Cold Resistance (Ohms) | Nominal Melting I <sup>2</sup> t (A <sup>2</sup> sec) | Maximum Voltage Drop at Rated Current (mV) | Maximum Power Dissipation At 1.5In(W) | Agency Approvals |    |    |    |    |   |
|----------|----------------|--------------------|---------------------|--------------------------------|---|--|---------------------------------------|------------------|----|----|----|----|---|
|          |                |                    |                     |                                |   |  |                                       | CCC              | RU | SF | CE | DE |   |
| .125     | 0.125          | 250                | 35 A @ 250 VAC      | 4.2000                         | 0.1465  | 1900                                       | 1.6                                   | x                | x  | x  | x  | x  |   |
| .160     | 0.16           | 250                |                     | 3.7000                         | 0.14400   | 1500                                       | 1.6                                   | x                | x  | x  | x  | x  |   |
| .200     | 0.2            | 250                |                     | 1.6000                         | 0.3410  | 1300                                       | 1.6                                   | x                | x  | x  | x  | x  |   |
| .250     | 0.25           | 250                |                     | 1.0495                         | 0.5405  | 1100                                       | 1.6                                   | x                | x  | x  | x  | x  |   |
| .315     | 0.315          | 250                |                     | 0.8475                         | 1.1100  | 1000                                       | 1.6                                   | x                | x  | x  | x  | x  |   |
| .400     | 0.4            | 250                |                     | 0.5350                         | 1.3250  | 900  | 1.6                                   | x                | x  | x  | x  | x  |   |
| .500     | 0.5            | 250                |                     | 0.3700                         | 2.8250  | 300  | 1.6                                   | x                | x  | x  | x  | x  |   |
| .630     | 0.63           | 250                |                     | 0.2750                         | 4.6750  | 250  | 1.6                                   | x                | x  | x  | x  | x  |   |
| .800     | 0.8            | 250                |                     | 0.0813                         | 3.370   | 150  | 1.6                                   | x                | x  | x  | x  | x  |   |
| 001.     | 1              | 250                |                     | 0.0613                         | 6.730   | 150  | 1.6                                   | x                | x  | x  | x  | x  |   |
| 1.25     | 1.25           | 250                |                     | 0.0446                         | 12.650  | 150  | 1.6                                   | x                | x  | x  | x  | x  |   |
| 01.6     | 1.6            | 250                |                     | 0.0336                         | 23.350  | 150  | 1.6                                   | x                | x  | x  | x  | x  |   |
| 002.     | 2              | 250                |                     | 0.0293                         | 14.450  | 150  | 1.6                                   | x                | x  | x  | x  | x  |   |
| 02.5     | 2.5            | 250                |                     | 0.0219                         | 23.250  | 120  | 1.6                                   | x                | x  | x  | x  | x  |   |
| 3.15     | 3.15           | 250                |                     | 0.0173                         | 38.150  | 100  | 1.6                                   | x                | x  | x  | x  | x  |   |
| 004.     | 4              | 250                |                     | 40 A @ 250 VAC                 | 0.0129  | 69.10                                      | 100                                   | 1.6              | x  | x  | x  | x  | x |
| 005.     | 5              | 250                |                     | 50 A @ 250 VAC                 | 0.0104  | 111.00                                     | 100                                   | 1.6              | x  | x  | x  | x  | x |
| 06.3     | 6.3            | 250                | 63 A @ 250 VAC      | 0.0076                         | 198.50  | 100  | 1.6                                   | x                | x  | x  | x  | x  |   |
| 008.     | 8              | 250                | 80 A @ 250 VAC      | 0.0059                         | 341.50  | 100  | 4                                     |                  | x  | x  | x  | x  |   |
| 010.     | 10             | 250                | 100 A @ 250 VAC     | 0.0045                         | 568.00  | 100  | 4                                     |                  | x  | x  | x  | x  |   |

## 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          |
|---|-----------------------------------|
| <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>          | <b>Body:</b> Glass<br><b>Cap:</b> Nickel-plated Brass<br><b>Leads:</b> Tin-plated Copper   |
| <b>Terminal Strength</b> | MIL-STD-202, Method 211, Test Condition A  |
| <b>Solderability</b>     | MIL-STD-202 method 208   |
| <b>Product Marking</b>   | <b>Cap1:</b> Brand logo, current and voltage ratings<br><b>Cap2:</b> Agency approval marks |
| <b>Packaging</b>         | Available in Bulk (M=1000 pcs/pkg) or on Tape/Reel (MRET1=1000 pcs/reel)                   |

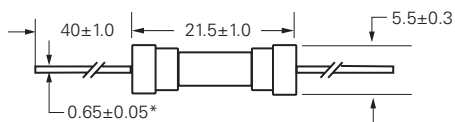
|                              |   |
|------------------------------|---|
| <b>Operating Temperature</b> | -55°C to +125°C   |
| <b>Thermal Shock</b>         | MIL-STD-202, Method 107, Test Condition B (5 cycles, -65°C to +125°C)                                   |
| <b>Vibration</b>             | MIL-STD-202,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

### Dimensions

0618 000P



0618.125 XEP  
to  
0618010. XEP



All dimensions in mm

Notes:

\* Ratings above 6.3A have 0.8±0.05 diameter lead.

### Part Numbering System

**0618 xxxx M X E P**

**Series**

**Amp Code**

Refer to Amp Code column of Electrical Characteristics Table

**Quantity Code**

M = 1000

**Packaging Code**

X = Filler

**Option Codes**

Blank : Cartridge Type Fuse  
E : Axial Lead Fuse

**Lead-free**

### Packaging

| Packaging Option  | Packaging Specification | Quantity | Quantity & Packaging Code | Taping Width     |
|-------------------|-------------------------|----------|---------------------------|------------------|
| <b>618 Series</b> |                         |          |                           |                  |
| Bulk              | N/A                     | 1000     | MX                        | N/A              |
| Bulk              | N/A                     | 1000     | MXE                       | N/A              |
| Reel and Tape     | EIA 296-E               | 1000     | MRET1                     | T1=53mm (2.087") |
| Bulk              | N/A                     | 1000     | MXG                       | N/A              |
| Bulk              | N/A                     | 1000     | MXB                       | N/A              |
| Bulk              | N/A                     | 100      | HX                        | N/A              |



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- Поставка более 17-ти миллионов наименований электронных компонентов;
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- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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