### Technical Data 2017

Effective May 2017 Supersedes April 2010

# **GMA** 5 mm x 20 mm Fast-acting glass tube fuses



#### **Product features**

- Fast-acting, low breaking capacity
- Optional axial leads available
- 5 x 20mm physical size
- Glass tube, silver-plated
- (63mA-315mA) and nickel-plated (500mA-15A) brass endcap construction
- Designed to UL/CSA 248-14

#### **Agency information**

• UL Listed, Guide JDYX, File E19180, 63mA-6A

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- UL Recognized, Guide JDYX2, File E19180, • 7-15A
- CSA Certified, Class 1422-01, File 53787, 63mA-6A
- PSE Approval, 1A-15A

#### Ordering

- Specify packaging, product, and option code
- Ratings above 6.3A have a 0.8 mm diameter lead
- With TR2 packaging code, lead wire length is 19.05 mm

| Electrical Characteristics |                              |                    |  |  |  |
|----------------------------|------------------------------|--------------------|--|--|--|
| Rated Current              | % of Amp Rating Opening Time |                    |  |  |  |
| 63mA - 15A                 | 100%                         | None               |  |  |  |
|                            | 135%                         | 60 minutes maximum |  |  |  |
|                            | 200%                         | 2 minutes maximum  |  |  |  |

|              |        |                   |                                | Specifica | ations                        |                                     |                    |
|--------------|--------|-------------------|--------------------------------|-----------|-------------------------------|-------------------------------------|--------------------|
| Product Code | Amp    | Voltage<br>Rating | Interrupting<br>Rating (amps)* |           | Typical DC Cold<br>Resistance | Typical<br>Pre-Arc I <sup>2</sup> t | Maximum<br>Voltage |
|              | Rating | Vac               | 250Vac                         | 125Vac    | ( <b>Ω</b> )**                | Vac†                                | Drop (mV)‡         |
| GMA-63-R     | 63mA   | 250               | 35                             | 10,000    | 15.750                        | 0.00024                             | 4700               |
| GMA-100-R    | 100mA  | 250               | 35                             | 10,000    | 7.840                         | 0.0001                              | 4300               |
| GMA-125-R    | 125mA  | 250               | 35                             | 10,000    | 4.895                         | 0.0024                              | 2600               |
| GMA-200-R    | 200mA  | 250               | 35                             | 10,000    | 2.500                         | 0.001                               | 3400               |
| GMA-250-R    | 250mA  | 250               | 35                             | 10,000    | 1.735                         | 0.018                               | 2200               |
| GMA-300-R    | 300mA  | 250               | 35                             | 10,000    | 0.906                         | 0.019                               | 470                |
| GMA-315-R    | 315mA  | 250               | 35                             | 10,000    | 0.839                         | 0.019                               | 450                |
| GMA-500-R    | 500mA  | 250               | 35                             | 10,000    | 0.454                         | 0.15                                | 230                |
| GMA-600-R    | 600mA  | 250               | 35                             | 10,000    | 0.256                         | 0.32                                | 200                |
| GMA-750-R    | 750mA  | 250               | 35                             | 10,000    | 0.186                         | 0.47                                | 200                |
| GMA-800-R    | 800mA  | 250               | 35                             | 10,000    | 0.170                         | 0.70                                | 180                |
| GMA-1-R      | 1      | 250               | 35                             | 10,000    | 0.163                         | 0.48                                | 300                |
| GMA-1.25-R   | 1.25   | 250               | 100                            | 10,000    | 0.122                         | 0.84                                | 290                |
| GMA-1.5-R    | 1.5    | 250               | 100                            | 10,000    | 0.090                         | 1.6                                 | 270                |
| GMA-1.6-R    | 1.6    | 250               | 100                            | 10,000    | 0.080                         | 2.0                                 | 260                |
| GMA-2-R      | 2      | 250               | 100                            | 10,000    | 0.066                         | 3.1                                 | 250                |
| GMA-2.5-R    | 2.5    | 250               | 100                            | 10,000    | 0.046                         | 4.9                                 | 240                |
| GMA-3-R      | 3      | 250               | 100                            | 10,000    | 0.039                         | 8.8                                 | 215                |
| GMA-3.15-R   | 3.15   | 125               | -                              | 10,000    | 0.036                         | 9.7                                 | 210                |
| GMA-3.5-R    | 3.5    | 125               | -                              | 10,000    | 0.030                         | 13                                  | 210                |
| GMA-4-R      | 4      | 125               | -                              | 10,000    | 0.026                         | 19                                  | 205                |
| GMA-5-R      | 5      | 125               | -                              | 10,000    | 0.021                         | 29                                  | 200                |
| GMA-6-R      | 6      | 125               | -                              | 10,000    | 0.017                         | 45                                  | 180                |
| GMA-7-R      | 7      | 125               | -                              | 200       | 0.012                         | 150                                 | 110                |
| GMA-8-R      | 8      | 125               | -                              | 200       | 0.009                         | 280                                 | 110                |
| GMA-10-R     | 10     | 125               | -                              | 200       | 0.006                         | 280                                 | 110                |
| GMA-15-R     | 15     | 125               | -                              | 150       | 0.004                         | 950                                 | 100                |

Interrupting ratings: Interrupting ratings for 63mA - 6A were measured at 70% - 80% power factor on AC. The interrupting ratings for 7A - 15A were measured at 100% power factor on AC. \*\* DC Cold Resistance (Measured at <10% of rated current)

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Typical Pre-Arching I <sup>2</sup>t (I<sup>2</sup>t was measured at listed interrupting rating and rated voltage) Maximum Voltage drop (Voltage drop was measured at 20°C ambient temperature at rated current)



#### **Dimensions - mm**



#### Time-Current Curve – GMA-R 63mA-800mA

## Time-Current Curve – GMA-R 1-15A



| Packaging Code |  |  |  |
|----------------|--|--|--|
| Packaging Code | Description  |  |  |
| BK             | 100 fuses packed into a cardboard carton                         |  |  |
| BK1            | 1000 fuses packed into a poly bag                                |  |  |
| TR2            | 1500 fuses packed into tape on a reel (19.05mm lead wire length) |  |  |
|                |  |  |  |
| Option Code    |  |  |  |

| Option Code |  |  |  |
|-------------|--|--|--|
| Option Code | Description  |  |  |
| V           | Axial leads - copper tinned wire with nickel-plated brass overcaps |  |  |

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