

# Fast-Acting Miniature Cartridge Fuses

## 6mm × 30mm

**multicomp**PRO

**RoHS  
Compliant**



### Description

These fast-acting fuse with high interrupting ratings and high voltage ratings provides protection for printed circuit boards and is used in a large variety of applications. This 6mm × 30mm device is constructed of a ceramic tube with electro-plated brass end caps. These fuses with 250V AC rating and 100A to 200 Ampere breaking capacity, offers excellent quality and is 100% tested for cold resistance and precise length.

### Features

- Miniature quick-acting fuse with high interrupting ratings and voltage ratings
- Ø6.35mm × 31.8mm physical dimensions
- Ceramic tube, encapsulated design with nickel - plated brass end caps
- Protection against harmful over-currents in primary and secondary applications.
- Lead-free and Halogen-free
- Designed compliant to UL248-14

### Mechanical Specifications

Operating Temperature : -55°C to 125°C

Storage Conditions : +10°C to +60°C

Relative humidity : ≤ 75% yearly average without dew, maximum 30 days at 95%

Vibration Resistance : 24 cycles at 15 min. each (60068-6)  
10-60Hz at 0.75mm amplitude  
60-2000Hz at 10g acceleration

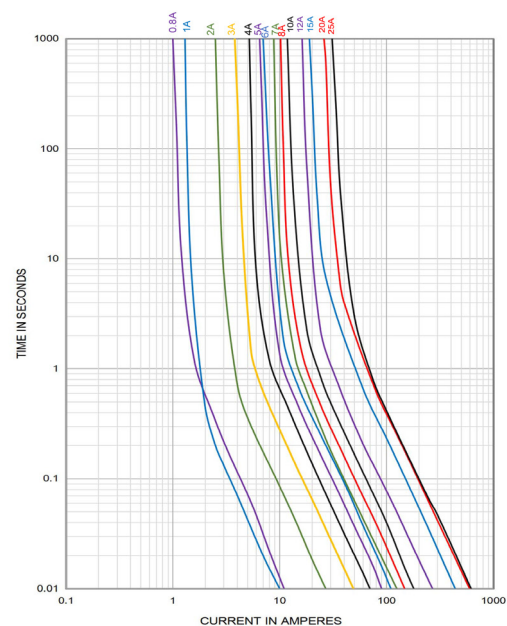
### Electrical Specifications

#### Time vs Current Characteristics Table

(measured with constant current power supply)

| Time vs Current Characteristics: UL248-14 |      |      |      |
|-------------------------------------------|------|------|------|
| Rated current                             | 100% | 135% | 200% |
| 2A to 20A                                 | >4h  | <1h  | <10s |

### Average Time Current (I-T) Curves



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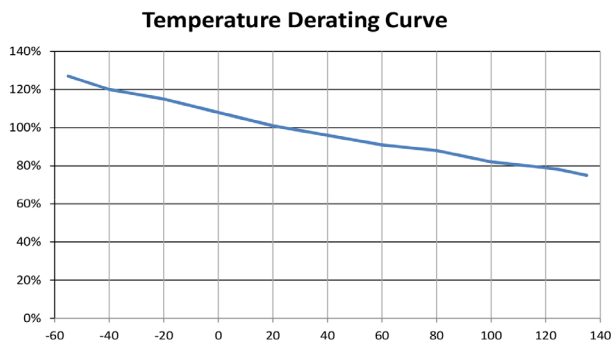
### Electrical characteristics at 25°C

| Part Number | Amp Code | Rated Current | Rated Voltage      | Nominal Melting I <sup>2</sup> t (A <sup>2</sup> sec) | Typical cold Resistance (mΩ) | Breaking Capacity            |
|-------------|----------|---------------|--------------------|-------------------------------------------------------|------------------------------|------------------------------|
| MP007102    | 1200     | 2A            | 125V AC<br>250V AC | 7.29                                                  | 68                           | 10KA/125V AC<br>100A/250V AC |
| MP007104    | 2150     | 15A           |                    | 1936                                                  | 4.4                          | 400A/125V AC<br>200A/250V AC |
| MP007103    | 2200     | 20A           |                    | 3600                                                  | 3.3                          |                              |

#### Notes:

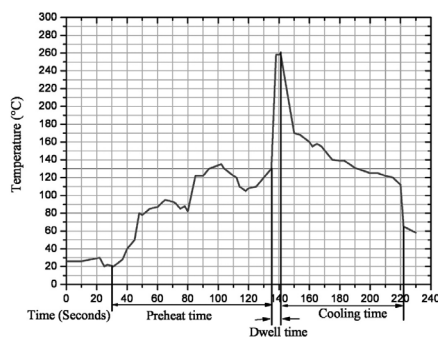
- (1) Permissible continuous operating current is ≤100% at ambient temperature of 23°C (73.4°F)
- (2) The current values used for calculating I<sup>2</sup>T should be within the standard range of 8ms ~ 10ms.

### Temperature Derating Curve



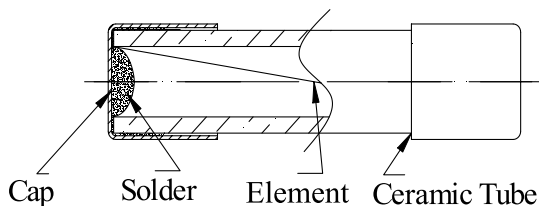
$$\text{Calculation for ideal fuse selection} = \frac{\text{Operating Current (A)}}{\text{Rating (\%} \times 0.75)}$$

### Soldering Parameters



260°C ≤5 sec (Wave Soldering)  
 350°C ≤3 sec (Hand Soldering)  
 Soldering Peak:  
 260°C - 10 sec (IEC 60068-20)

### Mechanical Specifications



Newark.com/multicomp-pro  
 Farnell.com/multicomp-pro  
 sg.element14.com/b/multicomp-pro

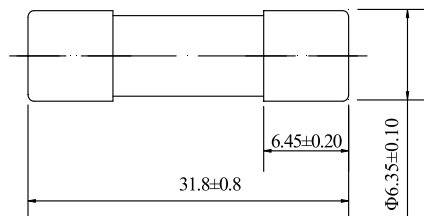
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### Diagram



### Part Number Table

| Description                                                    | Part Number |
|----------------------------------------------------------------|-------------|
| Fast-Acting Miniature Cartridge Fuse, 2A, 250V AC, 6mm × 30mm  | MP007102    |
| Fast-Acting Miniature Cartridge Fuse, 15A, 250V AC, 6mm × 30mm | MP007104    |
| Fast-Acting Miniature Cartridge Fuse, 20A, 250V AC, 6mm × 30mm | MP007103    |

Dimensions : Millimetres

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