

# Fast-Acting Brick SMD Fuse **multicomp**PRO



**RoHS  
Compliant**

## Description

The SMD fuse for the small size and good electrical performance reliability and quality the solder-free design provides excellent on-off and temperature cycling characteristics during use and also makes our SMD fuses more heat and shock tolerant than typical brick fuses.

## Features

- Rapid interruption of excessive current
- Ceramic body and silver plated copper terminal
- Excellent environmental integrity
- One time positive disconnect
- Lead-free and Halogen-free
- Designed to UL 248-14

## 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<br>10-60Hz at 0.75mm amplitude<br>60-2000Hz at 10g acceleration |

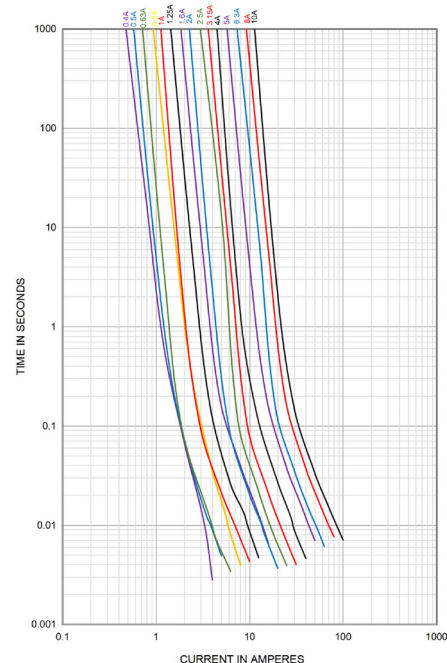
## Electrical Characteristics

### Time vs Current Characteristics Table

(measured with constant current power supply)

| Time vs Current Characteristics |      |      |
|---------------------------------|------|------|
| Rated current                   | 100% | 200% |
| 0.4A to 10A                     | >4h  | <60s |

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



# Fast-Acting Brick SMD Fuse **multicomp**PRO

## Electrical Characteristics at 25°C

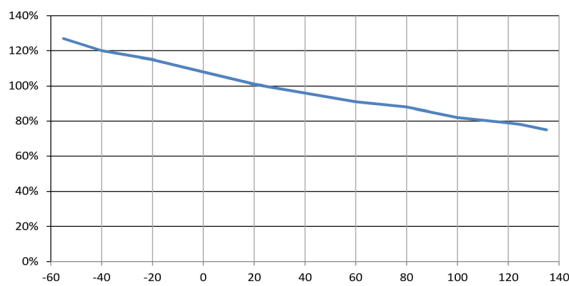
| Amp Code | Rated Current | Rated Voltage DC              | Max. Voltage Drop (mV) | Breaking Capacity                            | Typical Melting I <sup>2</sup> T (A <sup>2</sup> s) | Typ. Cold Resistance (mΩ) |
|----------|---------------|-------------------------------|------------------------|--|---|---------------------------|
| 1100     | 1A            | 125V AC<br>250V AC            | 300                    | 150A@125V AC<br>150A@250V AC                 | 0.47  | 103 to 191                |
| 1200     | 2A            | 125V DC<br>250V DC<br>400V DC | 150                    | 150A@125V DC<br>150A@250V DC<br>100A@400V DC | 1.84  | 36.7 to 68.1              |

**Note:**

- (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.

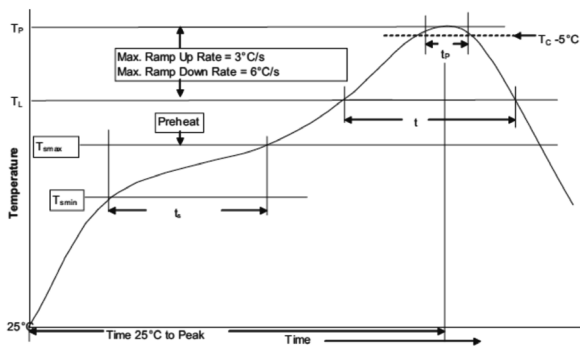
## Temperature Re-rating Curve

Temperature Derating Curve



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

## Soldering Parameters



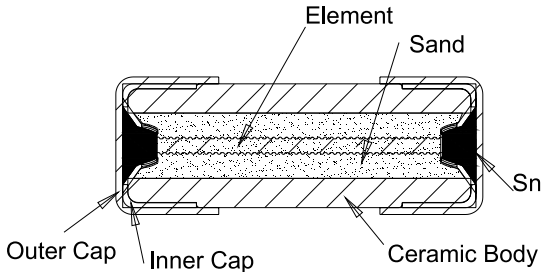
| Profile Feature   |                          | Pb-Free Assembly |
|---|--------------------------|------------------|
| Average Ramp-UP Rate(Tsmax to Tp)                                     |                          | 3°C/s Max.       |
| Preheat   | Temperature Min (Ts min) | 150°C            |
|   | Temperature Max (Ts max) | 200°C            |
|   | Time (Tsmin to Ts max)   | 60sec to 120sec  |
| Liquidous temperature(TL)   |                          | 217°C            |
| Time at liquidous(tL)   |                          | 60 to 150S       |
| Peak package body temperature (Tp)                                    |                          | 260°C            |
| Time (tp) within 5°C of the specified classification temperature (Tc) |                          | 30S              |
| Average ramp-down rate (Tp to Tsmax)                                  |                          | 6°C/s Max.       |
| Time (25°C to Peak Temperature)                                       |                          | 8 Minutes Max.   |

1. Infrared Reflow:
  - Temperature: 260°C
  - Time: 30sec Max.
  - Recommend reflow profile
2. Wave Soldering:
  - Reservoir Temperature: 260°C
  - Time in Reservoir: 10sec Max.

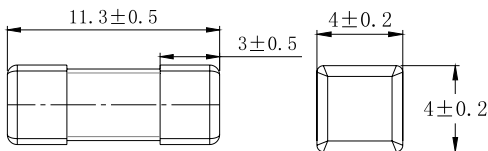
Newark.com/multicomp-pro  
 Farnell.com/multicomp-pro  
 sg.element14.com/b/multicomp-pro

# Fast-Acting Brick SMD Fuse **multicomp** PRO

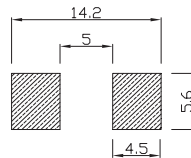
## Mechanical Specifications



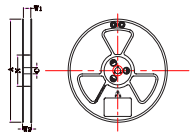
## Diagram



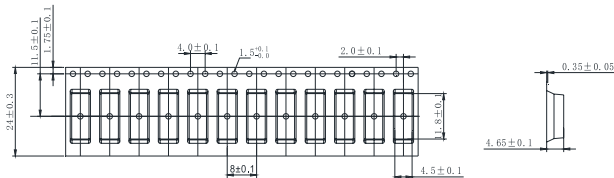
## Recommended Land Pattern



## Packing Information



| A   | N (Min.) | W1                 | W2 (Max.) | C         |
|-----|----------|--------------------|-----------|-----------|
| 330 | 100      | 24.4 <sup>+2</sup> | 30.4      | 13 ± 0.25 |



## Part Number Table

| Description  | Part Number |
|--|-------------|
| Brick SMD Fuse, Fast-Acting, 1A, 250V AC / 400V DC | MP001615    |
| Brick SMD Fuse, Fast-Acting, 1A, 250V AC / 400V DC | MP006276    |
| Brick SMD Fuse, Fast-Acting, 2A, 250V AC / 400V DC | MP006277    |

Dimensions : Millimetres

**Important Notice :** This data sheet and its contents (the "Information") belong to the members of the AVNET group of companies (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. Multicomp Pro is the registered trademark of Premier Farnell Limited 2019.

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

**multicomp** PRO