

# 0603FA

## Fast-acting Chip™ surface mount fuse



Surface Mount Device

**Product features**

- AEC-Q200 qualified
- Fast-acting surface-mount fuse
- Satisfies the EIA/IS-722 standard
- Solder immersion compatible

**Agency information**

- UL Recognition Guide & File numbers: JDYX2 &E19180
- CSA Component Acceptance: 053787 C 000 & Class Number: 1422 30

**Soldering method**

- Wave immersion: +260 °C, 10 seconds maximum
- Infrared reflow: +260 °C, 30 seconds maximum

**Environmental data**

- Operating temperature: -55 °C to +125 °C with proper derating
- Load humidity test: MIL-STD-202, Method 103B
- Moisture resistance test: MIL-STD-202, Method 106E
- Thermal shock test: MIL-STD-202, Method 107D
- High frequency vibration test: MIL-STD-202, Method 204D

**Ordering**

- Specify packaging and product code (i.e., TR/0603FA250-R)

| Electrical Characteristics |                    |
|----------------------------|--------------------|
| % of Amp Rating            | Opening Time       |
| 100%                       | 4 hours minimum    |
| 200%                       | 60 seconds maximum |

| Specifications |                    |                |   |                                  |                                     |                       |                     |
|----------------|--------------------|----------------|---|----------------------------------|-------------------------------------|-----------------------|---------------------|
| Part Number    | Current Rating (A) | Voltage Rating | Interrupting Rating (A) at Rated Voltage* | DC Cold Resistance** (Ω) Typical | Typical Melting I <sup>2</sup> t*** | Typical Voltage Drop† | Alpha Code Marking‡ |
| 0603FA250-R    | 250 mA             | 50 Vdc         | 50  | 3.100                            | 0.0004                              | 0.921                 | D                   |
| 0603FA375-R    | 375 mA             | 50 Vdc         | 50  | 1.250                            | 0.0009                              | 0.605                 | E                   |
| 0603FA500-R    | 500 mA             | 32 Vac/50 Vdc  | 50 ac/35 dc                               | 1.025                            | 0.00193                             | 0.600                 | F                   |
| 0603FA750-R    | 750 mA             | 32 Vac/dc      | 50  | 0.450                            | 0.0090                              | 0.440                 | G                   |
| 0603FA1-R      | 1                  | 32 Vac/dc      | 50  | 0.150                            | 0.0025                              | 0.211                 | H                   |
| 0603FA1.25-R   | 1.25               | 32 Vac/dc      | 35  | 0.108                            | 0.0130                              | 0.151                 | J                   |
| 0603FA1.5-R    | 1.5                | 32 Vac/dc      | 35  | 0.086                            | 0.0319                              | 0.138                 | K                   |
| 0603FA2-R      | 2                  | 32 Vac/dc      | 35  | 0.051                            | 0.0491                              | 0.116                 | N                   |
| 0603FA2.5-R    | 2.5                | 32 Vac/dc      | 35  | 0.037                            | 0.0625                              | 0.113                 | O                   |
| 0603FA3-R      | 3                  | 32 Vac/dc      | 35  | 0.028                            | 0.0699                              | 0.110                 | P                   |
| 0603FA3.5-R    | 3.5                | 32 Vac/dc      | 35  | 0.022                            | 0.1200                              | 0.103                 | R                   |
| 0603FA4-R      | 4                  | 32 Vac/dc      | 35  | 0.017                            | 0.2430                              | 0.097                 | S                   |
| 0603FA5-R      | 5                  | 32 Vac/dc      | 35  | 0.011                            | 0.6950                              | 0.090                 | T                   |

\* DC Interrupting rating (Measured at designated voltage, time constant of less than 50 microseconds, battery source)

\*\* DC Cold resistance (Measured at ≤10% of rated current)

\*\*\* Typical melting I<sup>2</sup>t (Measured with a battery bank at rated DC voltage, 10x-rated current, not to exceed IR, time constant of calibrated circuit less than 50 microseconds) (0603FA4A and 5A measured at interrupting rating)

† Typical voltage drop (Measured at rated current after temperature stabilizes)

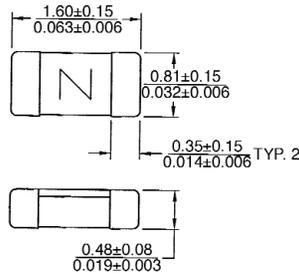
‡ Alpha code to be marked on the top of fuse body for all ratings



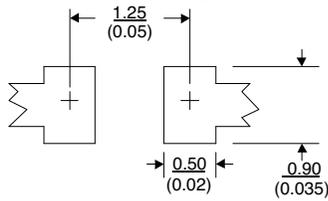
Powering Business Worldwide

**Dimensions – mm/inches**

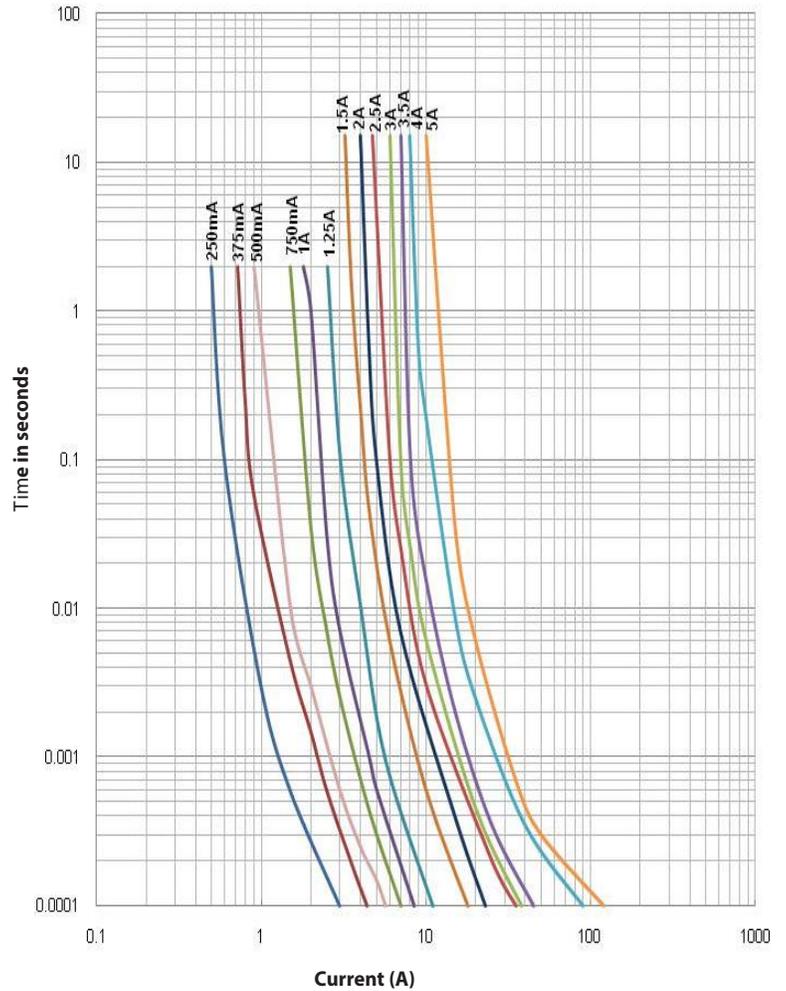
Drawing Not to Scale



**Recommended Pad Layout – mm/inches**



**Time Current Curve**



| Packaging Code        |  |
|-----------------------|--|
| Packaging Code Prefix | Description  |
| TR                    | 5,000 fuses on paper tape and reeled on a 178 mm (7 inch) diameter reel per EIA Standard 481-1 |

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