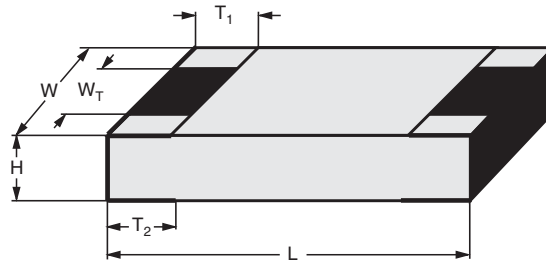
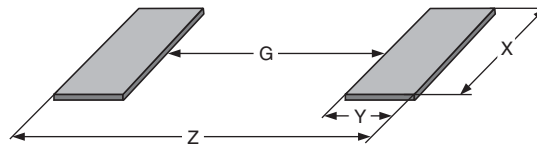


## DIMENSIONS



| DIMENSIONS - Chip fuse types, mass and relevant physical dimensions |                   |                 |             |             |                     |                     |           |
|---|-------------------|-----------------|-------------|-------------|---------------------|---------------------|-----------|
| TYPE  | H (mm)            | L (mm)          | W (mm)      | WT (mm)     | T <sub>1</sub> (mm) | T <sub>2</sub> (mm) | MASS (mg) |
| MFU 0402  | 0.32 ± 0.07       | 1.0 ± 0.05      | 0.5 ± 0.05  | > 75 % of W | 0.2 + 0.1/- 0.15    | 0.2 ± 0.1           | 0.65      |
| MFU 0603  | 0.45 + 0.1/- 0.05 | 1.55 ± 0.05     | 0.85 ± 0.1  | > 75 % of W | 0.3 + 0.15/- 0.2    | 0.3 + 0.15/- 0.2    | 1.9       |
| MFU 0805  | 0.45 + 0.1/- 0.05 | 2.0 ± 0.1       | 1.25 ± 0.15 | > 75 % of W | 0.4 + 0.1/- 0.2     | 0.4 + 0.1/- 0.2     | 4.7       |
| MFU 1206  | 0.55 ± 0.1        | 3.2 + 0.1/- 0.2 | 1.6 ± 0.15  | > 75 % of W | 0.5 ± 0.25          | 0.5 ± 0.25          | 9.5       |

## SOLDER PAD DIMENSIONS



| RECOMMENDED SOLDER PAD DIMENSIONS |                |        |        |        |                  |        |        |        |
|-----------------------------------|----------------|--------|--------|--------|------------------|--------|--------|--------|
| TYPE                              | WAVE SOLDERING |        |        |        | REFLOW SOLDERING |        |        |        |
|                                   | G (mm)         | Y (mm) | X (mm) | Z (mm) | G (mm)           | Y (mm) | X (mm) | Z (mm) |
| MFU 0402                          | -              | -      | -      | -      | 0.35             | 0.55   | 0.55   | 1.45   |
| MFU 0603                          | 0.55           | 1.10   | 1.10   | 2.75   | 0.65             | 0.70   | 0.95   | 2.05   |
| MFU 0805                          | 0.80           | 1.25   | 1.50   | 3.30   | 0.90             | 0.90   | 1.40   | 2.70   |
| MFU 1206                          | 1.40           | 1.50   | 1.90   | 4.40   | 1.50             | 1.15   | 1.75   | 3.80   |

### Note

- The given solder pad dimensions reflect the considerations for board design and assembly as outlined e.g. in standards IEC 61188-5-x, or in publication IPC-7351. They do not guarantee any supposed thermal properties, particularly as these are also strongly influenced by many other parameters.



| <b>MFU 0402 RATING - Very quick acting (FF)</b> |            |                              |               |   |   |   |                      |                    |          |                               |
|---|------------|------------------------------|---------------|---|---|---|----------------------|--------------------|----------|-------------------------------|
| SIZE  | FUSE CHAR. | RATED CURRENT <sup>(1)</sup> | RATED VOLTAGE | PRE-ARCING <sup>(2)</sup><br>$I^2t$<br>at $10 \times I_R$ | VOLT. DROP <sup>(2)</sup><br>at<br>$1 \times I_R$ | COLD RESIS <sup>(2)</sup><br>at<br>$0.1 \times I_R$ | BREAKING CAPACITY DC | MARK.              | APPROVAL | PART NUMBER <sup>(3)(4)</sup> |
| 0402  | FF         | 500 mA <sup>(5)</sup>        | 32 V          | 0.0009 A <sup>2</sup> s                                   | 368 mV  | 560 mΩ  | 50 A at 32 V         | -                  | UL       | MFU0402FF00500E500            |
|   |            | 630 mA <sup>(5)</sup>        | 32 V          | 0.0014 A <sup>2</sup> s                                   | 331 mV  | 400 mΩ  | 50 A at 32 V         | -                  | UL       | MFU0402FF00630E500            |
|   |            | 750 mA <sup>(5)</sup>        | 32 V          | 0.0020 A <sup>2</sup> s                                   | 275 mV  | 280 mΩ  | 50 A at 32 V         | -                  | UL       | MFU0402FF00750E500            |
|   |            | 800 mA                       | 32 V          | 0.0023 A <sup>2</sup> s                                   | 231 mV  | 220 mΩ  | 50 A at 32 V         | -                  | UL       | MFU0402FF00800E500            |
|   |            | 1.0 A                        | 32 V          | 0.0028 A <sup>2</sup> s                                   | 184 mV  | 140 mΩ  | 50 A at 32 V         | -                  | UL       | MFU0402FF01000E500            |
|   |            | 1.25 A                       | 32 V          | 0.0039 A <sup>2</sup> s                                   | 159 mV  | 97 mΩ   | 50 A at 32 V         | -                  | UL       | MFU0402FF01250E500            |
|   |            | 1.5 A                        | 32 V          | 0.0059 A <sup>2</sup> s                                   | 146 mV  | 74 mΩ   | 50 A at 32 V         | -                  | UL       | MFU0402FF01500E500            |
|   |            | 1.6 A                        | 32 V          | 0.0065 A <sup>2</sup> s                                   | 136 mV  | 65 mΩ   | 50 A at 32 V         | -                  | UL       | MFU0402FF01600E500            |
|   |            | 1.75 A                       | 32 V          | 0.0077 A <sup>2</sup> s                                   | 124 mV  | 54 mΩ   | 50 A at 32 V         | -                  | UL       | MFU0402FF01750E500            |
|   |            | 2.0 A                        | 32 V          | 0.0101 A <sup>2</sup> s                                   | 115 mV  | 44 mΩ   | 50 A at 32 V         | -                  | UL       | MFU0402FF02000E500            |
|   |            | 2.5 A                        | 32 V          | 0.0157 A <sup>2</sup> s                                   | 107 mV  | 33 mΩ   | 50 A at 32 V         | -                  | UL       | MFU0402FF02500E500            |
|   |            | 3.0 A                        | 32 V          | 0.0227 A <sup>2</sup> s                                   | 95 mV   | 24 mΩ   | 50 A at 32 V         | -                  | UL       | MFU0402FF03000E500            |
| 3.15 A  | 32 V       | 0.0250 A <sup>2</sup> s      | 90 mV         | 22 mΩ   | 50 A at 32 V                                      | -   | UL                   | MFU0402FF03150E500 |          |                               |

**Notes**

- (1) Other values of rated current are available on request
- (2) Typical values
- (3) For packages with 1000 pieces, please use for packaging E1 instead of E5
- (4) For packages with 10 000 pieces, please use for packaging E0 instead of E5
- (5) Available on request

| <b>MFU 0603 RATING - Very quick acting (FF)</b> |            |                              |               |   |   |   |                      |                    |          |                               |
|---|------------|------------------------------|---------------|---|---|---|----------------------|--------------------|----------|-------------------------------|
| SIZE  | FUSE CHAR. | RATED CURRENT <sup>(6)</sup> | RATED VOLTAGE | PRE-ARCING <sup>(7)</sup><br>$I^2t$<br>at $10 \times I_R$ | VOLT. DROP <sup>(7)</sup><br>at<br>$1 \times I_R$ | COLD RESIS <sup>(7)</sup><br>at<br>$0.1 \times I_R$ | BREAKING CAPACITY DC | MARK.              | APPROVAL | PART NUMBER <sup>(8)(9)</sup> |
| 0603  | FF         | 500 mA                       | 32 V          | 0.0009 A <sup>2</sup> s                                   | 361 mV  | 550 mΩ  | 50 A at 32 V         | F                  | UL/IEC   | MFU0603FF00500P500            |
|   |            | 630 mA                       | 32 V          | 0.0014 A <sup>2</sup> s                                   | 331 mV  | 400 mΩ  | 50 A at 32 V         | CT                 | UL       | MFU0603FF00630P500            |
|   |            | 750 mA                       | 32 V          | 0.0020 A <sup>2</sup> s                                   | 258 mV  | 262 mΩ  | 50 A at 32 V         | G                  | UL       | MFU0603FF00750P500            |
|   |            | 800 mA                       | 32 V          | 0.0023 A <sup>2</sup> s                                   | 249 mV  | 237 mΩ  | 50 A at 32 V         | CV                 | UL       | MFU0603FF00800P500            |
|   |            | 1.0 A                        | 32 V          | 0.0028 A <sup>2</sup> s                                   | 223 mV  | 170 mΩ  | 50 A at 32 V         | H                  | UL/IEC   | MFU0603FF01000P500            |
|   |            | 1.25 A                       | 32 V          | 0.0039 A <sup>2</sup> s                                   | 180 mV  | 110 mΩ  | 50 A at 32 V         | J                  | UL       | MFU0603FF01250P500            |
|   |            | 1.5 A                        | 32 V          | 0.0059 A <sup>2</sup> s                                   | 155 mV  | 79 mΩ   | 50 A at 32 V         | K                  | UL       | MFU0603FF01500P500            |
|   |            | 1.6 A                        | 32 V          | 0.0065 A <sup>2</sup> s                                   | 159 mV  | 76 mΩ   | 50 A at 32 V         | EF                 | UL/IEC   | MFU0603FF01600P500            |
|   |            | 1.75 A                       | 32 V          | 0.0077 A <sup>2</sup> s                                   | 138 mV  | 60 mΩ   | 50 A at 32 V         | L                  | UL       | MFU0603FF01750P500            |
|   |            | 2.0 A                        | 32 V          | 0.0101 A <sup>2</sup> s                                   | 150 mV  | 57 mΩ   | 50 A at 32 V         | N                  | UL/IEC   | MFU0603FF02000P500            |
|   |            | 2.5 A                        | 32 V          | 0.0157 A <sup>2</sup> s                                   | 121 mV  | 37 mΩ   | 50 A at 32 V         | O                  | UL       | MFU0603FF02500P500            |
|   |            | 3.0 A                        | 32 V          | 0.0227 A <sup>2</sup> s                                   | 126 mV  | 32 mΩ   | 50 A at 32 V         | P                  | UL       | MFU0603FF03000P500            |
|   |            | 3.15 A                       | 32 V          | 0.0250 A <sup>2</sup> s                                   | 120 mV  | 29 mΩ   | 50 A at 32 V         | EL                 | UL/IEC   | MFU0603FF03150P500            |
|   |            | 3.5 A                        | 32 V          | 0.0308 A <sup>2</sup> s                                   | 106 mV  | 23 mΩ   | 50 A at 32 V         | R                  | UL       | MFU0603FF03500P500            |
| 4.0 A   | 32 V       | 0.0403 A <sup>2</sup> s      | 100 mV        | 19 mΩ   | 50 A at 32 V                                      | S   | UL                   | MFU0603FF04000P500 |          |                               |
| 5.0 A   | 32 V       | 0.2275 A <sup>2</sup> s      | 85 mV         | 13 mΩ   | 50 A at 32 V                                      | T   | UL                   | MFU0603FF05000P500 |          |                               |

**Notes**

- (6) Other values of rated current are available on request
- (7) Typical values
- (8) For packages with 1000 pieces, please use for packaging P1 instead of P5
- (9) For packages with 20 000 pieces, please use for packaging PW instead of P5