

Surface Mount Fuse, 3 x 10.1 mm, Quick-Acting F, 250 VAC, 125 VDC

new



IEC 60127-4 · 250 VAC · 125 VDC · Quick-Acting F



### Description

- Directly solderable on printed circuit boards
- Low melting I<sup>2</sup>t-values, fast interruption
- Compact design
- UMF (universal modular fuse)

### Standards

- IEC 60127-4/2
- UL 248-14
- CSA C22.2 no. 248.14

### Approvals

- VDE Certificate Number: 40027880
- UL File Number: E41599

### Applications

- Primary protection on SMD PCBs
- Secondary protection on SMD PCBs
- Industrial electronic
- Medical equipment
- Power supplies
- Lighting

### References

[Packaging Details](#)

Fuse Kit [Fuse Kit UMF 250 / UMK 250](#)

### Weblinks

[pdf-datasheet](#), [html-datasheet](#), [General Product Information](#), [Approvals](#), [CE declaration of conformity](#), [RoHS](#), [CHINA-RoHS](#), [REACH](#), [e-Shop](#), [SCHURTER-Stock-Check](#), [Distributor-Stock-Check](#), [Detailed request for product](#)

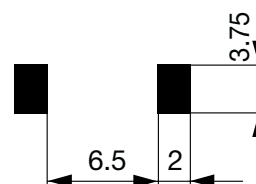
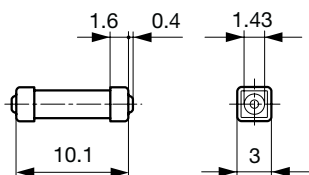
### Technical Data

|                              |                                                                                                                                                                                                                                           |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Rated Voltage                | 250 VAC, 125 VDC                                                                                                                                                                                                                          |
| Rated current                | 0.5 - 10 A                                                                                                                                                                                                                                |
| Breaking Capacity            | 100 A - 200 A                                                                                                                                                                                                                             |
| Characteristic               | Quick-Acting F                                                                                                                                                                                                                            |
| Mounting                     | PCB, SMT                                                                                                                                                                                                                                  |
| Admissible Ambient Air Temp. | -55 °C to 125 °C                                                                                                                                                                                                                          |
| Climatic Category            | 55/125/21 acc. to IEC 60068-1                                                                                                                                                                                                             |
| Material: Housing            | Ceramic                                                                                                                                                                                                                                   |
| Material: Terminals          | Tin-Plated Copper Alloy                                                                                                                                                                                                                   |
| Unit Weight                  | 0.23 g                                                                                                                                                                                                                                    |
| Storage Conditions           | 0 °C to 40 °C, max. 70% r.h.                                                                                                                                                                                                              |
| Product Marking              |   , Rated current, Rated voltage, Characteristic, Breaking Capacity |

|                              |                                                                        |
|------------------------------|------------------------------------------------------------------------|
| Soldering Methods            | Reflow, Wave                                                           |
| Solderability                | 245 °C / 3 sec acc. to IEC 60068-2-58, Test Td                         |
| Resistance to Soldering Heat | 260 °C / 10 sec acc. to IEC 60068-2-58, Test Td                        |
| Life Test                    | 1000h @ 0.60 x I <sub>n</sub> @ 70 °C (acc. to EIA/IS-722, Test 4.4.1) |
| Moisture Resistance Test     | MIL-STD-202, Method 106E (acc. to EIA/IS-722, Test 4.4.3)              |
| Case Resistance              | >100 MΩ (between leads and body) acc. to EIA/IS-722, Test 4.7          |
| Mechanical Shock             | MIL-STD-202, Method 213B (Shock 50g, half sine wave, 11 ms)            |
| Resistance to Solvents       | MIL-STD-202, Method 215A                                               |
| Flammability                 | min. UL 94V-1 (acc. to EIA/IS-722, Test 4.12)                          |

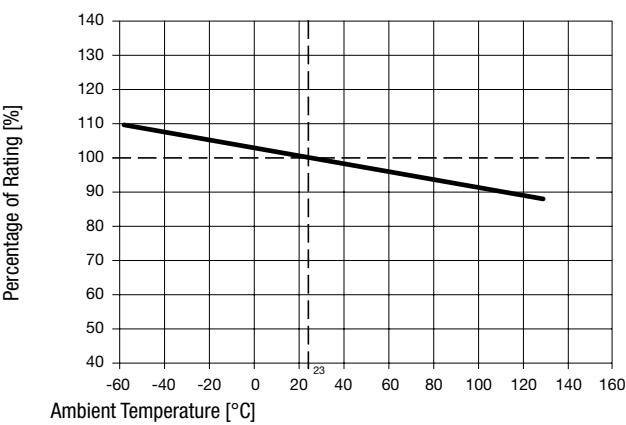
### Dimension

10.1 mm



Soldering pads

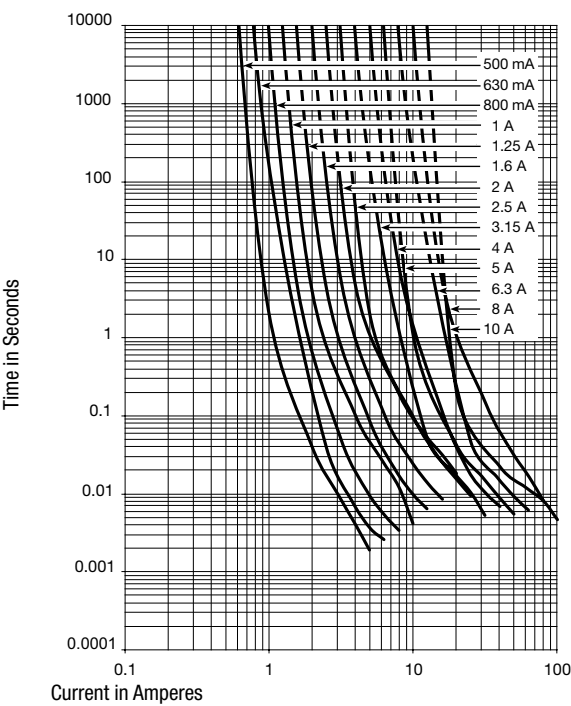
Derating Curves



Pre-Arcing Time

| Rated Current In | 1.0 x In min. | 1.25 x In min. | 2.0 x In max. | 10.0 x In min. | 10.0 x In max. |
|------------------|---------------|----------------|---------------|----------------|----------------|
| 0.5 A - 8 A      | -             | 60 min         | 120 s         | 1 ms           | 10 ms          |
| 10 A             | 4 h           | -              | 120 s         | 1 ms           | 10 ms          |

Time-Current-Curves



## All Variants

| Rated Current [A] | Rated Voltage [VAC] | Rated Voltage [VDC] | Breaking Capacity | Voltage Drop 1.0 In max. [mV] | Voltage Drop 1.0 In typ. [mV] | Power Dissipation 1.25 I <sub>n</sub> typ. [mW] | Melting I <sup>2</sup> t 10.0 Intyp. [A <sup>2</sup> s] |  | Order Number |
|-------------------|---------------------|---------------------|-------------------|-------------------------------|-------------------------------|-------------------------------------------------|---------------------------------------------------------|-------------------------------------------------------------------------------------|--------------|
| 0.5               | 250                 | 125                 | 1)                | 600                           | 430                           | 500                                             | 0.27                                                    | ● ●                                                                                 | 3405.0163.xx |
| 0.63              | 250                 | 125                 | 1)                | 500                           | 350                           | 500                                             | 0.092                                                   | ● ●                                                                                 | 3405.0164.xx |
| 0.8               | 250                 | 125                 | 1)                | 400                           | 300                           | 500                                             | 0.21                                                    | ● ●                                                                                 | 3405.0165.xx |
| 1                 | 250                 | 125                 | 1)                | 300                           | 250                           | 500                                             | 0.4                                                     | ● ●                                                                                 | 3405.0166.xx |
| 1.25              | 250                 | 125                 | 2)                | 300                           | 220                           | 1000                                            | 1                                                       | ● ●                                                                                 | 3405.0167.xx |
| 1.6               | 250                 | 125                 | 2)                | 300                           | 190                           | 1000                                            | 2.1                                                     | ● ●                                                                                 | 3405.0168.xx |
| 2                 | 250                 | 125                 | 2)                | 300                           | 200                           | 1000                                            | 3.26                                                    | ● ●                                                                                 | 3405.0169.xx |
| 2.5               | 250                 | 125                 | 2)                | 300                           | 160                           | 1200                                            | 4.8                                                     | ● ●                                                                                 | 3405.0170.xx |
| 3.15              | 250                 | 125                 | 2)                | 300                           | 100                           | 1500                                            | 5.17                                                    | ● ●                                                                                 | 3405.0171.xx |
| 4                 | 250                 | 125                 | 2)                | 300                           | 100                           | 2000                                            | 9.4                                                     | ● ●                                                                                 | 3405.0172.xx |
| 5                 | 250                 | 125                 | 2)                | 300                           | 110                           | 2500                                            | 13.57                                                   | ● ●                                                                                 | 3405.0173.xx |
| 6.3               | 250                 | 125                 | 2)                | 300                           | 80                            | 3000                                            | 23.85                                                   | ● ●                                                                                 | 3405.0174.xx |
| 8                 | 250                 | 125                 | 2)                | 220                           | 80                            | 3000                                            | 52.58                                                   | ● ●                                                                                 | 3405.0175.xx |
| 10                | 250                 | 125                 | 3)                | 220                           | 150                           | 3500                                            | 45.8                                                    | ● ●                                                                                 | 3405.0176.xx |

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1) IEC: 100 A @ 250 VAC, p.f. ≥ 0.95 / 100 A @ 125 VDC, resistive

1) UL: 200 A @ 250 VAC, p.f. ≥ 0.95 / 200 A @ 125 VDC, resistive

2) IEC: 100 A @ 250 VAC, p.f. ≥ 0.95 / 100 A @ 125 VDC, resistive

2) UL: 100 A @ 250 VAC, p.f. ≥ 0.95 / 100 A @ 125 VDC, resistive

3) UL: 100 A @ 250 VAC, p.f. ≥ 0.95 / 100 A @ 125 VDC, resistive

## Packaging Unit

.xx = .11 Plastic Bag (100 pcs.)

.xx = .24 Blister Tape 33 cm Reel (2000 pcs.)