

Surface Mount Fuse, 3 x 10.1 mm, Time-Lag T, 250 VAC, 125 VDC



IEC 60127-4 · 250VAC · 125VDC · Time-Lag T

See below:

[Approvals and Compliances](#)**Description**

- High current range from 80 mA to 10 A
- High breaking capacity of 200 A @ 250 VAC (IEC)
- UL approval for 277 VAC and 250 VDC
- Impermeable to potting compound used to achieve hermetic seal for use in intrinsically safe applications according to ATEX and IECEx requirements.

**Unique Selling Proposition**

- Compact design
- Maximum breaking capacity at minimal footprint
- Suitable for pulse-shaped continuous currents

[Application Note Primary Protection in Equipment](#) with further information on increased [Pulse Strength](#) and their test conditions according to international standards see [Impulse Withstand Voltage](#)



**Applications**

- Primary protection on SMD PCBs
- Medical Equipment
- Battery protection

**References**Fuse Kit [Fuse Kit UMT 250 / UMZ 250](#)**Weblinks**

[pdf data sheet](#), [html datasheet](#), [General Product Information](#), [Distributor-Stock-Check](#), [Detailed request for product](#), [Microsite](#)

**Technical Data**

|                              |   |
|------------------------------|---|
| Rated Voltage                | 250VAC, 125VDC  |
| Rated current                | 0.08 - 10A  |
| Breaking Capacity            | 35A - 200A  |
| Characteristic               | Time-Lag T  |
| Mounting                     | PCB,SMT   |
| Admissible Ambient Air Temp. | -55 °C to 125 °C  |
| Climatic Category            | 55/125/21 acc. to IEC 60068-1   |
| Material: Housing            | Ceramics  |
| Material: Terminals          | Copper alloy, tin-plated  |
| Unit Weight                  | 0.23 g  |
| Storage Conditions           | 0 °C to 60 °C, max. 70% r.h.  |
| Product Marking              |   , Rated current, Voltage, Characteristic, Breaking Capacity |

|                              |   |
|------------------------------|---|
| Soldering Methods            | Reflow, Wave<br><a href="#">Soldering Profile</a>                   |
| Solderability                | 245 °C / 3sec acc. to IEC 60068-2-58, Test Td                       |
| Resistance to Soldering Heat | 260 °C / 10sec acc. to IEC 60068-2-58                               |
| Moisture Sensitivity Level   | MSL 1, J-STD-020  |
| Flammability                 | min. UL 94V-1<br>(acc. to EIA/IS-722, Test 4.12)                    |
| Moisture Resistance Test     | MIL-STD-202, Method 106<br>(50 cycles in a temp./mister chamber)    |
| Operational Life             | MIL-STD-202, Method 108<br>(1000h @ 0.42*In @ 70°C)                 |
| Mechanical Shock             | MIL-STD-202, Method 213 Condition A                                 |
| Resistance to Solvents       | MIL-STD-202, Method 215   |
| Terminal Strength            | MIL-STD-202, Method 211A<br>(Deflection of board 1 mm for 1 minute) |

**Approvals and Compliances**







Detailed information on product approvals, code requirements, usage instructions and detailed test conditions can be looked up in [Details about Approvals](#)

SCHURTER products are designed for use in industrial environments. They have approvals from independent testing bodies according to national and international standards. Products with specific characteristics and requirements such as required in the automotive sector according to IATF 16949, medical technology according to ISO 13485 or in the aerospace industry can be offered exclusively with customer-specific, individual agreements by SCHURTER.

## Approvals




The approval mark is used by the testing authorities to certify compliance with the safety requirements placed on electronic products.

Approval Reference Type: UMT 250

| Approval Logo  | Certificates                   | Certification Body | Description   |
|--|--------------------------------|--------------------|---|
|  | <a href="#">VDE Approvals</a>  | VDE                | VDE Certificate Number: 40013121                                |
|  | <a href="#">UL Approvals</a>   | UL                 | UL File Number: UR E41599, UL E300707                           |
|  | <a href="#">UL Approvals</a>   | UL                 | UL File Number: UR E41599, UL E300707                           |
|  | <a href="#">CQC Approvals</a>  | CQC                | CQC Certificate Number: CQC11012062827                          |
|  | <a href="#">KTL Approvals</a>  | KTL                | Korea Testing Laboratory  |
|  | <a href="#">METI Approvals</a> | METI               | Japan Electrical Safety and Environment technology Laboratories |

## Product standards

Product standards that are referenced

| Organization   | Design                | Standard           | Description  |
|--|-----------------------|--------------------|--|
|  | Designed according to | IEC 60127-4/2      | Miniature fuses. Part 4. Universal modular fuse-links for through-hole and surface mount types |
|  | Designed according to | UL 248-14          | Low voltage fuses - Part 14: Additional fuses  |
|  | Designed according to | CSA22.2 No. 248.14 | Low-Voltage Fuses - Part 14: Supplemental Fuses  |







## Application standards

Application standards where the product can be used

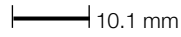
| Organization   | Design                         | Standard       | Description   |
|--|--------------------------------|----------------|---|
|  | Designed for applications acc. | IEC/UL 62368-1 | Audio/video, information and communication technology equipment - Part 1: Safety requirements |

## Compliances

The product complies with following Guide Lines

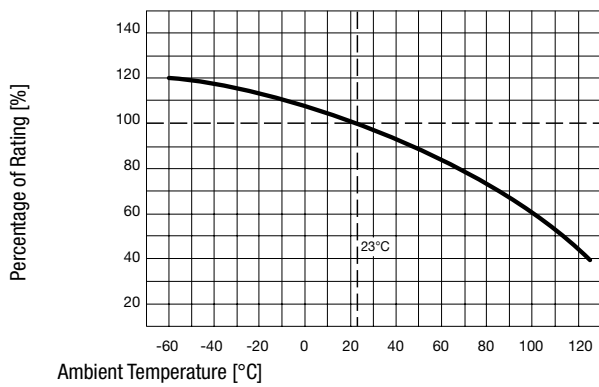
| Identification   | Details                                      | Initiator   | Description   |
|--|--|-------------|---|
|  | <a href="#">CE declaration of conformity</a> | SCHURTER AG | The CE marking declares that the product complies with the applicable requirements laid down in the harmonisation of Community legislation on its affixing in accordance with EU Regulation 765/2008. |
|  | <a href="#">RoHS</a>                         | SCHURTER AG | Directive RoHS 2011/65/EU, Amendment (EU) 2015/863  |
|  | <a href="#">China RoHS</a>                   | SCHURTER AG | The law SJ / T 11363-2006 (China RoHS) has been in force since 1 March 2007. It is similar to the EU directive RoHS.  |
|  | <a href="#">REACH</a>                        | SCHURTER AG | On 1 June 2007, Regulation (EC) No 1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals 1 (abbreviated as "REACH") entered into force.                               |
|  |  | SCHURTER AG | Universal Modular Fuse meets the standard IEC 60127-4   |
|  | <a href="#">Automotive</a>                   | SCHURTER AG | AEC-Q200 is a test standard for passive components used in automotive applications. SCHURTER tests components according to the customer's agreement and is certified according to IATF 16949.         |

Dimension [mm]



Soldering pads

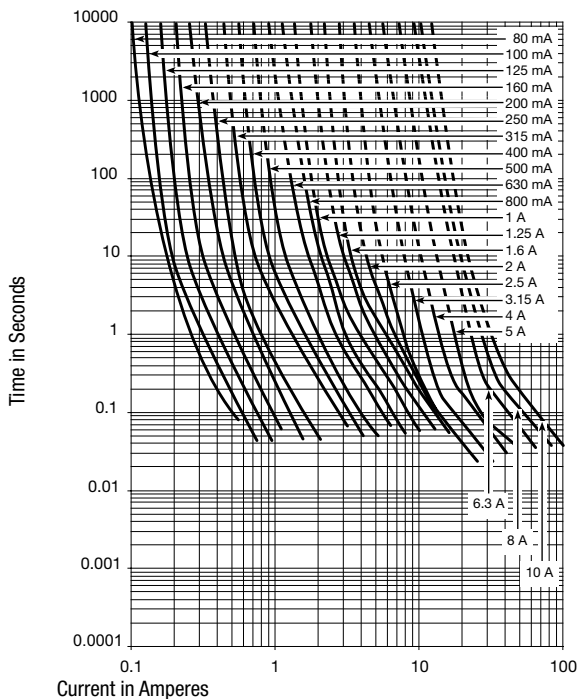
### Derating Curves



### Pre-Arcing Time








| Rated Current $I_n$ | 1.0 x $I_n$ min. | 1.25 x $I_n$ min. | 2.0 x $I_n$ max. | 10.0 x $I_n$ min. | 10.0 x $I_n$ max. |
|---------------------|------------------|-------------------|------------------|-------------------|-------------------|
| 0.08 A - 6.3 A      | -                | 60 min            | 120 s            | 10 ms             | 100 ms            |
| 8 A - 10 A          | 4 h              | -                 | 120 s            | 10 ms             | 100 ms            |

Time-Current-Curves



All Variants

| Rated Current [A] | Rated Voltage [VAC] | Rated Voltage [VDC] | Breaking Capacity | Voltage Drop 1.0 I <sub>n</sub> max. [mV] | Voltage Drop 1.0 I <sub>n</sub> typ. [mV] | Power Dissipation 1.25 I <sub>n</sub> max [mW] | Melting I <sup>2</sup> t 10.0 I <sub>n</sub> typ. [A <sup>2</sup> s] |   |   |   |   |   | Order Number |
|-------------------|---------------------|---------------------|-------------------|---|---|--|--|---|---|---|---|---|--------------|
| 0.08              | 250                 | 125                 | 1)                | 1300                                      | 1030                                      | 200  | 0.022  | ● | ● | ● | ● | ● | 3403.0155.11 |
| 0.08              | 250                 | 125                 | 1)                | 1300                                      | 1030                                      | 200  | 0.022  | ● | ● | ● | ● | ● | 3403.0155.24 |
| 0.1               | 250                 | 125                 | 1)                | 1300                                      | 870                                       | 200  | 0.04   | ● | ● | ● | ● | ● | 3403.0156.11 |
| 0.1               | 250                 | 125                 | 1)                | 1300                                      | 870                                       | 200  | 0.04   | ● | ● | ● | ● | ● | 3403.0156.24 |
| 0.125             | 250                 | 125                 | 1)                | 1000                                      | 700                                       | 200  | 0.055  | ● | ● | ● | ● | ● | 3403.0157.11 |
| 0.125             | 250                 | 125                 | 1)                | 1000                                      | 700                                       | 200  | 0.055  | ● | ● | ● | ● | ● | 3403.0157.24 |
| 0.16              | 250                 | 125                 | 1)                | 1000                                      | 540                                       | 240  | 0.057  | ● | ● | ● | ● | ● | 3403.0158.11 |
| 0.16              | 250                 | 125                 | 1)                | 1000                                      | 540                                       | 240  | 0.057  | ● | ● | ● | ● | ● | 3403.0158.24 |
| 0.2               | 250                 | 125                 | 1)                | 1000                                      | 460                                       | 500  | 0.092  | ● | ● | ● | ● | ● | 3403.0159.11 |
| 0.2               | 250                 | 125                 | 1)                | 1000                                      | 460                                       | 500  | 0.092  | ● | ● | ● | ● | ● | 3403.0159.24 |
| 0.25              | 250                 | 125                 | 1)                | 800                                       | 395                                       | 500  | 0.2  | ● | ● | ● | ● | ● | 3403.0160.11 |
| 0.25              | 250                 | 125                 | 1)                | 800                                       | 395                                       | 500  | 0.2  | ● | ● | ● | ● | ● | 3403.0160.24 |
| 0.315             | 250                 | 125                 | 1)                | 750                                       | 343                                       | 500  | 0.27   | ● | ● | ● | ● | ● | 3403.0161.11 |
| 0.315             | 250                 | 125                 | 1)                | 750                                       | 343                                       | 500  | 0.27   | ● | ● | ● | ● | ● | 3403.0161.24 |
| 0.4               | 250                 | 125                 | 1)                | 700                                       | 290                                       | 500  | 0.4  | ● | ● | ● | ● | ● | 3403.0162.11 |
| 0.4               | 250                 | 125                 | 1)                | 700                                       | 290                                       | 500  | 0.4  | ● | ● | ● | ● | ● | 3403.0162.24 |
| 0.5               | 250                 | 125                 | 1)                | 600                                       | 257                                       | 500  | 0.54   | ● | ● | ● | ● | ● | 3403.0163.11 |
| 0.5               | 250                 | 125                 | 1)                | 600                                       | 257                                       | 500  | 0.54   | ● | ● | ● | ● | ● | 3403.0163.24 |
| 0.63              | 250                 | 125                 | 1)                | 500                                       | 216                                       | 500  | 1.1  | ● | ● | ● | ● | ● | 3403.0164.11 |
| 0.63              | 250                 | 125                 | 1)                | 500                                       | 216                                       | 500  | 1.1  | ● | ● | ● | ● | ● | 3403.0164.24 |
| 0.8               | 250                 | 125                 | 1)                | 400                                       | 190                                       | 500  | 1.4  | ● | ● | ● | ● | ● | 3403.0165.11 |
| 0.8               | 250                 | 125                 | 1)                | 400                                       | 190                                       | 500  | 1.4  | ● | ● | ● | ● | ● | 3403.0165.24 |
| 1                 | 250                 | 125                 | 2)                | 300                                       | 164                                       | 500  | 2.8  | ● | ● | ● | ● | ● | 3403.0166.11 |
| 1                 | 250                 | 125                 | 2)                | 300                                       | 164                                       | 500  | 2.8  | ● | ● | ● | ● | ● | 3403.0166.24 |
| 1.25              | 250                 | 125                 | 2)                | 300                                       | 138                                       | 1000   | 4.5  | ● | ● | ● | ● | ● | 3403.0167.11 |
| 1.25              | 250                 | 125                 | 2)                | 300                                       | 138                                       | 1000   | 4.5  | ● | ● | ● | ● | ● | 3403.0167.24 |
| 1.6               | 250                 | 125                 | 2)                | 300                                       | 124                                       | 1000   | 6.9  | ● | ● | ● | ● | ● | 3403.0168.11 |
| 1.6               | 250                 | 125                 | 2)                | 300                                       | 124                                       | 1000   | 6.9  | ● | ● | ● | ● | ● | 3403.0168.24 |

| Rated Current [A] | Rated Voltage [VAC] | Rated Voltage [VDC] | Breaking Capacity | Voltage Drop 1.0 I <sub>n</sub> max. [mV] | Voltage Drop 1.0 I <sub>n</sub> typ. [mV] | Power Dissipation 1.25 I <sub>n</sub> max [mW] | Melting I <sup>2</sup> t 10.0 I <sub>n</sub> typ. [A <sup>2</sup> s] |  |  |  |  |  |  |  | Order Number |
|-------------------|---------------------|---------------------|-------------------|---|---|--|--|---|---|---|---|---|---|---|--------------|
| 2                 | 250                 | 125                 | 2)                | 300                                       | 102                                       | 1000   | 7.3  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 3403.0169.11 |
| 2                 | 250                 | 125                 | 2)                | 300                                       | 102                                       | 1000   | 7.3  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 3403.0169.24 |
| 2.5               | 250                 | 125                 | 2)                | 300                                       | 90  | 1200   | 7.5  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 3403.0170.11 |
| 2.5               | 250                 | 125                 | 2)                | 300                                       | 90  | 1200   | 7.5  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 3403.0170.24 |
| 3.15              | 250                 | 125                 | 2)                | 300                                       | 95  | 1500   | 14   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 3403.0171.11 |
| 3.15              | 250                 | 125                 | 2)                | 300                                       | 95  | 1500   | 14   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 3403.0171.24 |
| 4                 | 250                 | 125                 | 2)                | 300                                       | 78  | 2000   | 26   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 3403.0172.11 |
| 4                 | 250                 | 125                 | 2)                | 300                                       | 78  | 2000   | 26   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 3403.0172.24 |
| 5                 | 250                 | 125                 | 3)                | 300                                       | 76  | 2500   | 38   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 3403.0173.11 |
| 5                 | 250                 | 125                 | 3)                | 300                                       | 76  | 2500   | 38   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 3403.0173.24 |
| 6.3               | 250                 | 125                 | 3)                | 300                                       | 71  | 3000   | 66   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 3403.0174.11 |
| 6.3               | 250                 | 125                 | 3)                | 300                                       | 71  | 3000   | 66   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 3403.0174.24 |
| 8                 | 250                 | 125                 | 4)                | 220                                       | 72  | 3000   | 113  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 3403.0175.11 |
| 8                 | 250                 | 125                 | 4)                | 220                                       | 72  | 3000   | 113  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 3403.0175.24 |
| 10                | 250                 | 125                 | 4)                | 220                                       | 73  | 3500   | 166  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 3403.0176.11 |
| 10                | 250                 | 125                 | 4)                | 220                                       | 73  | 3500   | 166  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 3403.0176.24 |

Most Popular.

Availability for all products can be searched real-time: <https://www.schurter.com/en/Stock-Check/Stock-Check-SCHURTER>

- 1) IEC: 200 A @ 250 VAC, p.f. ≥ 0.95 / 100 A @ 125 VDC
- 1) UL: 200 A @ 277 VAC / 100 A @ 125 VDC / 35 A @ 250 VDC / 200 A @ 63 VAC/DC
- 2) IEC: 200 A @ 250 VAC, p.f. ≥ 0.95 / 100 A @ 125 VDC
- 2) UL: 200 A @ 277 VAC / 100 A @ 125 VDC / 35 A @ 250 VDC / 200 A @ 63 VAC/DC
- 2) PSE: 100 A @ 250 VAC
- 3) IEC: 100 A @ 250 VAC, p.f. ≥ 0.95 / 100 A 125 VDC
- 3) UL: 100 A @ 250 VAC / 100 A @ 125 VDC / 35 A @ 250 VDC / 200 A @ 63 VAC/DC
- 3) PSE: 100 A @ 250 VAC
- 4) UL: 35 A @ 250 VAC / 35 A @ 125 VDC / 200 A @ 63 VAC/DC
- 4) PSE: 100 A @ 250 VAC

The 80 mA variant may not be to replace the 80 mA used with gold caps UMT (Au).

| Packaging Unit           | .xx = .11 | 100 pcs in Blister Tape ESD-plastic bag                   |
|--------------------------|-----------|---|
| acc. IEC 60286-3 Type 2a | .xx = .24 | 2000 pcs. in tape [W: 24mm and P1: 8mm] on reel [A: 33cm] |