

Surface Mount Fuse, 5.3 x 16 mm, Super-Time-Lag TT, 125 VAC / 125 VDC, Breaking Capacity \leq 1000 A



Fail Safe Device

UL 248-14 · 125 VAC · 125 VDC · Super-Time-Lag TT

See below:

[Approvals and Compliances](#)

Description

- 5 rated currents from 5 A to 20 A
- Square design: 5.3 x 16
- Impermeable to potting compound used to achieve hermetic seal for use in intrinsically safe applications according to ATEX and IECEx requirements.

Unique Selling Proposition

- Suitable as Fail Safe Device
- Very high melting integral
- Precisely defined melting times (min/max)

Applications

- Avionics
- Wire protection
- Fail-Safe Applications
- Suitable for motor drive applications with medium to long motor cables

Other versions on request


- Different Up Screenings
- Extensive Test Reports
- Visual Inspection according MIL-PRF 55342

Weblinks

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

[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](#)

Technical Data

| | |
|------------------------------|--|
| Rated Voltage | 125VAC, 125VDC |
| Rated current | 5 - 20A |
| Breaking Capacity | up to 1000A |
| Characteristic | Super-Time-Lag TT |
| 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 | Ni/Sn-Plated Copper Alloy |
| Unit Weight | 1.42 g |
| Storage Conditions | 0°C to 40°C, max. 70% r.h. |
| Product Marking |  Rated current, Voltage, Characteristic, Breaking Capacity, Approvals |

| | |
|------------------------------|---|
| Soldering Methods | Reflow Soldering Profile |
| Solderability | JESD22-B102E, Method 1 |
| Resistance to Soldering Heat | JEDEC J-STD-020 |
| Moisture Sensitivity Level | MSL 1, J-STD-020 |
| Moisture Resistance Test | MIL-STD-202, Method 106 |
| Thermal Shock | MIL-STD-202, Method 107 |
| Operational Life | MIL-STD-202, Method 108 Condition F |
| Load Humidity Test | MIL-STD-202, Method 103 |
| Vibration, High Frequency | MIL-STD-202, Method 204 Condition C |
| Mechanical Shock | MIL-STD-202, Method 213 Condition C |
| Resistance to Solvents | MIL-STD-202, Method 215 |
| Temperature Cycling | JESD22 Method JA-104 |
| Board Flex | AEC-Q200-005 |

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-W

| Approval Logo | Certificates | Certification Body | Description |
|---|------------------------------|--------------------|------------------------|
|  | UL Approvals | UL | UL File Number: E41599 |

Product standards

Product standards that are referenced

| Organization | Design | Standard | Description |
|--|-----------------------|-------------|---|
|  | Designed according to | IEC 60127-7 | Miniature fuses - Part 7: Miniature fuse-links for special applications |
|  | Designed according to | UL 248-14 | Low voltage fuses - Part 14: Additional 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 |

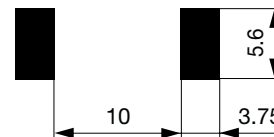
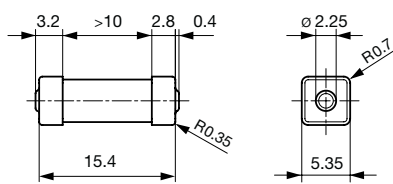
Compliances

The product complies with following Guide Lines

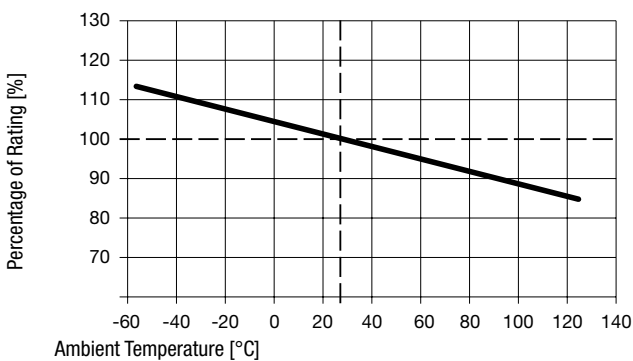
| Identification | Details | Initiator | Description |
|--|--|-------------|---|
|  | CE declaration of conformity | SCHURTER AG | The CE marking declares that the product complies with the applicable requirements laid down in the harmonisation of Community legislation on its affixing in accordance with EU Regulation 765/2008. |
|  | UKCA declaration of conformity | SCHURTER AG | The UKCA marking declares that the product complies with the applicable requirements laid down in the British Amendment of Regulation (EC) 765/2008. |
|  | RoHS | SCHURTER AG | Directive RoHS 2011/65/EU, Amendment (EU) 2015/863 |
|  | China RoHS | 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. |
|  | Halogen Free | SCHURTER AG | SCHURTER strives to offer our customers halogen free products. |
|  | REACH | 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. |

Dimension [mm]

Soldering pads



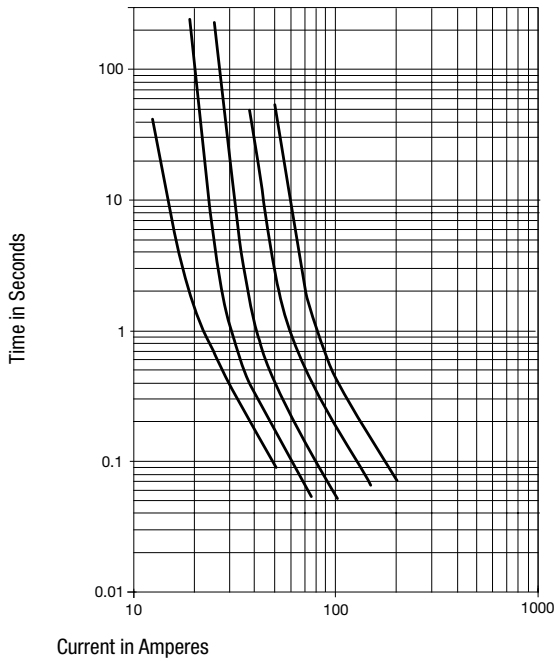
Derating Curves




Pre-Arcing Time

| Rated Current I _n | 1.0 x I _n min. | 2.5 x I _n min. | 4.0 x I _n min. | 4.0 x I _n max. | 10.0 x I _n min. | 10.0 x I _n max. |
|------------------------------|---------------------------|---------------------------|---------------------------|---------------------------|----------------------------|----------------------------|
| 5 A - 20 A | 4 h | 3.5 s | 600 ms | 20 s | 25 ms | 1 s |

Time-Current-Curves



All Variants

| Rated Current [A] | Rated Voltage [VAC] | Rated Voltage [VDC] | Breaking Capacity | Voltage Drop 1.0 I _n typ. [mV] | Power Dissipation 1.0 I _n typ. [mW] | Melting I ² t 10.0 I _n typ. [A ² s] |  | Packaging [PCS] | Order Number |
|-------------------|---------------------|---------------------|-------------------|---|--|--|---|-----------------|--------------|
| 5 | 125 | 125 | 1) | 80 | 400 | 230 | ● | 100 | 3-122-712 |
| 5 | 125 | 125 | 1) | 80 | 400 | 230 | ● | 1500 | 3-122-713 |
| 7.5 | 125 | 125 | 2) | 40 | 300 | 320 | ● | 100 | 3-122-714 |
| 7.5 | 125 | 125 | 2) | 40 | 300 | 320 | ● | 1500 | 3-122-715 |
| 10 | 125 | 125 | 2) | 41 | 420 | 510 | ● | 100 | 3-122-716 |
| 10 | 125 | 125 | 2) | 41 | 420 | 510 | ● | 1500 | 3-122-717 |
| 15 | 125 | 125 | 2) | 40 | 630 | 1480 | ● | 100 | 3-122-718 |
| 15 | 125 | 125 | 2) | 40 | 630 | 1480 | ● | 1500 | 3-122-719 |
| 20 | 125 | 125 | 2) | 40 | 835 | 2800 | ● | 100 | 3-122-720 |
| 20 | 125 | 125 | 2) | 40 | 835 | 2800 | ● | 1500 | 3-122-721 |


Most Popular.

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

- 1) UL = 350 A @ 125 VAC / 350 A @ 125 VDC
- 1) Internal tests = 1'500 A @ 125 VAC with cos(φ) ≥ 0.75 / 1500 A @ 250 VDC with τ < 0.3 ms
- 2) UL = 350 A @ 125 VAC / 350 A @ 125 VDC
- 2) Internal tests = 1'000 A @ 125 VAC with cos(φ) ≥ 0.75 / 500 A @ 125 VDC with τ < 0.3 ms

All measurements are carried out on a test board according to IEC 60127 with the following tracks:

5 A: Track width 5.0 mm, Cu layer 35 μm

| Rated Current [A] | Rated Voltage [VAC] | Rated Voltage [VDC] | Breaking Capacity | Voltage Drop 1.0 I _n typ. [mV] | Power Dissipation 1.0 I _n typ. [mW] | Melting I ² t 10.0 I _n typ. [A ² s]  | Packaging [PCS] | Order Number |
|-------------------|---------------------|---------------------|-------------------|---|--|--|-----------------|--------------|
|-------------------|---------------------|---------------------|-------------------|---|--|--|-----------------|--------------|

7.5 A: Track width 7.5 mm, Cu layer 70 µm

10 A: Track width 7.5 mm, Cu layer 140 µm

15 A, 20 A: Track width 10 mm, Cu layer 140 µm

Packaging Unit

acc. IEC 60286-3 Type 2a

100 pcs in ESD-plastic bag

1500 pcs. in tape [W: 24mm and P1: 8mm] on reel [A: 33cm]

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[FHC16322ADTP](#) [0308.250UR](#) [0308.375UR](#) [0308.500UR](#) [0308.750UR](#) [030801.5UR](#) [03081.25UR](#) [F0603G0R03FNTR](#) [SKY87604-11](#)
[3404.0110.22](#) [SEF 0.375A 125V \(G\)](#) [1211015](#) [S1206-F-3.0A](#) [9321315278](#) [S0603-F-4.0A](#) [SMT1315AP](#) [0603TD-4A](#) [1240FH-30A](#)
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[189140.0,4](#) [189140.0,63](#) [189140.0,25](#) [0468003.WR](#) [0494001.NRHF](#) [0494002.NRHF](#) [0494003.NRHF](#) [049402.5NRHF](#) [049403.5NRHF](#)
[0494.250NRHF](#) [0494.375NRHF](#) [0494.500NRHF](#) [CF06V3T1R60](#) [CF06V3T2R50](#)