

Surface Mount Fuse, 3.2 x 1.6 mm, Super-Quick-Acting FF, 63 VDC / 125 VAC, low impedance



Exemplary part photo depending on part no.

UL 248-14 · 125 VAC · 63 VDC · Super-Quick-Acting FF

See below:

[Approvals and Compliances](#)

### Description

- Complements USF 1206 with lower current ratings
- Impermeable to potting compound

### Unique Selling Proposition

- Lowest voltage drop
- Very fast, precise opening

### Applications

- Smart meters
- Battery protection
- Sensors
- Mobile devices
- Semiconductor protection

### References

#### Weblinks

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

### Technical Data

|                          |                                    |
|--------------------------|------------------------------------|
| Rated Voltage            | 125 VAC, 63 VDC                    |
| Rated current            | 0.05 - 0.25 A                      |
| Breaking Capacity        | 100 A                              |
| Characteristic           | Super-Quick-Acting FF              |
| Mounting                 | PCB,SMT                            |
| Admissible Ambient Temp. | -55 °C to 90 °C                    |
| Climatic Category        | 55/090/21 acc. to IEC 60068-1      |
| Material: Housing        | Fiber-reinforced plastic, UL 94V-0 |
| Material: Terminals      | Gold-Plated Copper Alloy           |
| Unit Weight              | 0.0133 g                           |
| Storage Conditions       | 0 °C to 60 °C, max. 70% r.h.       |
| Product Marking          | Letter (see variants)              |

|                              |                                                                                  |
|------------------------------|----------------------------------------------------------------------------------|
| Soldering Methods            | Reflow<br><a href="#">Soldering Profile</a>                                      |
| Solderability                | 245 °C / 3 sec acc. to IEC 60068-2-58, Test Td                                   |
| Resistance to Soldering Heat | 260 +0/-5 °C / 30 sec acc. to IPC/JEDEC J-STD-020D, Level 1                      |
| Moisture Sensitivity Level   | MSL 1, J-STD-020                                                                 |
| Case Resistance              | acc. to EIA/IS-722, Test 4.7<br>>100 MΩ (between leads and body)                 |
| Moisture Resistance Test     | MIL-STD-202C, Method 103 B (Level 1)<br>IPC/JEDEC-J-STD-20C<br>(85°C@85%RH@240h) |
| Thermal Shock                | IEC 60068-2-14, CECC 4200 (5 Cycles<br>40°C - 125°C)                             |
| Resistance to Solvents       | MIL-STD-202, Method 215<br>(EIA-722, 4.11)                                       |
| 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: USFF 1206

| Approval Logo | Certificates                 | Certification Body | Description            |
|---------------|------------------------------|--------------------|------------------------|
|               | <a href="#">UL Approvals</a> | UL                 | UR File Number: E41599 |

Product standards

Product standards that are referenced

| Organization                                                                     | Design                | Standard           | Description                                     |
|----------------------------------------------------------------------------------|-----------------------|--------------------|-------------------------------------------------|
|  | Designed according to | UL 248-14          | Low voltage fuses - Part 14: Supplemental 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                                                                                   |
|----------------------------------------------------------------------------------|--------------------------------|----------------|-----------------------------------------------------------------------------------------------|
|  | Suitable for applications acc. | IEC/UL 62368-1 | Audio/video, information and communication technology equipment - Part 1: Safety requirements |

Compliances

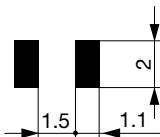
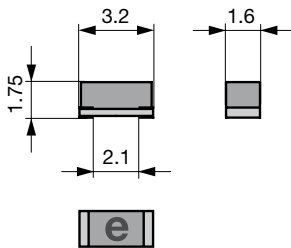
The product complies with following Guide Lines

| 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="#">UKCA declaration of conformity</a>        | 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.                                                                                      |
|    | <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="#">Halogen Free</a><br><a href="#">REACH</a> | SCHURTER AG<br>SCHURTER AG | SCHURTER strives to offer our customers halogen free products.<br>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. |

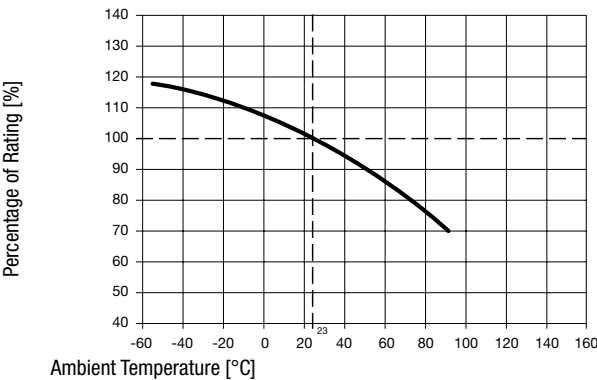
Dimension [mm]

 3.2 mm

Reflow soldering pads



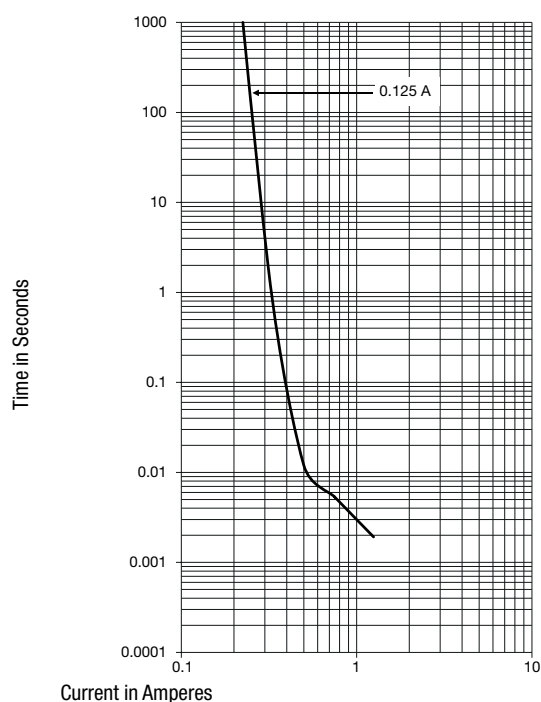
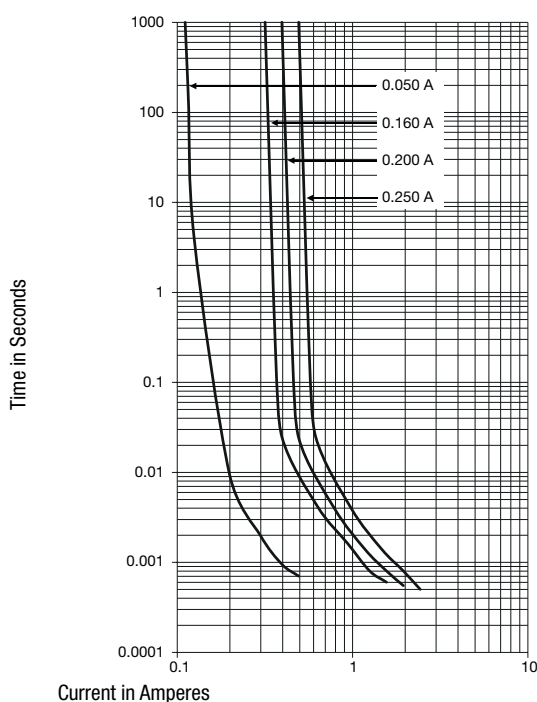
Derating Curves



## Pre-Arcing Time

| Rated Current $I_n$ | 1.0 x $I_n$ min. | 2.5 x $I_n$ max. | 10.0 x $I_n$ min. | 10.0 x $I_n$ max. |
|---------------------|------------------|------------------|-------------------|-------------------|
| 0.05 A              | 4 h              | 5 s              | 0.1 ms            | 1 ms              |
| 0.125 A             | 4 h              | 5 s              | 0.1 ms            | 3 ms              |
| 0.16 A - 0.25 A     | 4 h              | 5 s              | 0.1 ms            | 1 ms              |

## Time-Current-Curves



## All Variants

| Rated Current [A] | Rated Voltage [VAC] | Rated Voltage [VDC] | Marking | Breaking Capacity | Voltage Drop 1.0 $I_n$ typ. [mV] | Cold Resistance typ. [mΩ] | Melting $I^2t$ 8.0 $I_n$ typ. [A²s] | Order Number |
|-------------------|---------------------|---------------------|---------|-------------------|----------------------------------|---------------------------|-------------------------------------|--------------|
| 0.05              | 125                 | 63                  | e       | 1)                | 430                              | 9200                      | 0.0002                              | 3413.0002.11 |
| 0.05              | 125                 | 63                  | e       | 1)                | 430                              | 9200                      | 0.0002                              | 3413.0002.22 |
| 0.05              | 125                 | 63                  | e       | 1)                | 430                              | 9200                      | 0.0002                              | 3413.0002.24 |
| 0.05              | 125                 | 63                  | e       | 1)                | 430                              | 9200                      | 0.0002                              | 3413.0002.26 |
| 0.125             | 125                 | 63                  | o       | 1)                | 260                              | 2000                      | 0.003                               | 3413.0006.11 |
| 0.125             | 125                 | 63                  | o       | 1)                | 260                              | 2000                      | 0.003                               | 3413.0006.22 |
| 0.125             | 125                 | 63                  | o       | 1)                | 260                              | 2000                      | 0.003                               | 3413.0006.24 |
| 0.125             | 125                 | 63                  | o       | 1)                | 260                              | 2000                      | 0.003                               | 3413.0006.26 |
| 0.16              | 125                 | 63                  | s       | 1)                | 95                               | 450                       | 0.0015                              | 3413.0008.11 |
| 0.16              | 125                 | 63                  | s       | 1)                | 95                               | 450                       | 0.0015                              | 3413.0008.22 |
| 0.16              | 125                 | 63                  | s       | 1)                | 95                               | 450                       | 0.0015                              | 3413.0008.24 |
| 0.16              | 125                 | 63                  | s       | 1)                | 95                               | 450                       | 0.0015                              | 3413.0008.26 |
| 0.2               | 125                 | 63                  | u       | 1)                | 87                               | 355                       | 0.0029                              | 3413.0009.11 |
| 0.2               | 125                 | 63                  | u       | 1)                | 87                               | 355                       | 0.0029                              | 3413.0009.22 |
| 0.2               | 125                 | 63                  | u       | 1)                | 87                               | 355                       | 0.0029                              | 3413.0009.24 |
| 0.2               | 125                 | 63                  | u       | 1)                | 87                               | 355                       | 0.0029                              | 3413.0009.26 |
| 0.25              | 125                 | 63                  | w       | 1)                | 75                               | 220                       | 0.0032                              | 3413.0010.11 |
| 0.25              | 125                 | 63                  | w       | 1)                | 75                               | 220                       | 0.0032                              | 3413.0010.22 |
| 0.25              | 125                 | 63                  | w       | 1)                | 75                               | 220                       | 0.0032                              | 3413.0010.24 |
| 0.25              | 125                 | 63                  | w       | 1)                | 75                               | 220                       | 0.0032                              | 3413.0010.26 |

| Rated Cur-<br>rent [A] | Rated Vol-<br>tage [VAC] | Rated Vol-<br>tage [VDC] | Marking | Breaking<br>Capacity | Voltage Drop<br>1.0 I <sub>n</sub> typ.<br>[mV] | Cold Resi-<br>stance typ.<br>[mΩ] | Melting I <sup>2</sup> t 8.0<br>I <sub>n</sub> typ. [A²s] c  | Order Number |
|------------------------|--------------------------|--------------------------|---------|----------------------|-------------------------------------------------|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
|------------------------|--------------------------|--------------------------|---------|----------------------|-------------------------------------------------|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|--------------|

 Most Popular:

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

1) 10 A @ 125 VAC, 100 A @ 32 VAC, 100 A @ 63 VDC

|                          |           |                                                           |
|--------------------------|-----------|-----------------------------------------------------------|
| <b>Packaging Unit</b>    | .xx = .11 | 100 pcs. in tape in ESD-plastic bag                       |
| acc. IEC 60286-3 Type 2a | .xx = .22 | 1000 pcs. in tape [W: 8mm and P1: 4mm] on reel [A: 18cm]  |
|                          | .xx = .24 | 5000 pcs. in tape [W: 8mm and P1: 4mm] on reel [A: 33cm]  |
|                          | .xx = .26 | 10000 pcs. in tape [W: 8mm and P1: 4mm] on reel [A: 33cm] |