

Surface Mount Fuse, 1.6 x 0.8 mm, Super-Quick-Acting FF, 32 VAC, 63 VDC



USF 0603

UL 248-14 · 32 VAC · 63 VDC · Super-Quick-Acting FF



Description

- UL characteristic
- Low melting I²t-values, fast interruption
- Impermeable to potting compound

Standards

- UL 248-14
- CSA C22.2 no. 248.14

Approvals

- Approval Reference Type: USF 0603
- UL File Number: E41599

Applications

- Secondary Protection DC and AC
- Circuits without inrush
- Semiconductor protection

References

[Packaging Details](#)

Weblinks

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

Technical Data

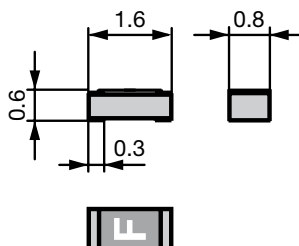
| | |
|------------------------------|-------------------------------------|
| Rated Voltage | 32 VAC, 63 VDC |
| Rated current | 0.5 - 5 A |
| Breaking Capacity | 50 A |
| Characteristic | Super-Quick-Acting FF |
| Mounting | PCB,SMT |
| Admissible Ambient Air Temp. | -55 °C to 90 °C |
| Climatic Category | 55/090/21 acc. to IEC 60068-1 |
| Material: Housing | Epoxyd Glass, UL 94V-0 |
| Material: Terminals | general Ni/Sn, for 1A version Ni/Au |
| Unit Weight | 0.0016 g |
| Storage Conditions | 0 °C to 60 °C, max. 70% r.h. |
| Product Marking | Letter (see variants) |

| | |
|------------------------------|---|
| Soldering Methods | Reflow Soldering Profile |
| 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 Resistance Test | MIL-STD-202, Method 106E (50 cycles in a temp./mister chamber) |
| Terminal Strength | MIL-STD-202, Method 211A (Deflection of board 1 mm for 1 minute) |
| Case Resistance | acc. to EIA/IS-722, Test 4.7 >100 MΩ (between leads and body) |
| Resistance to Solvents | MIL-STD-202, Method 215A |
| Flammability | min. UL 94V-1 (acc. to EIA/IS-722, Test 4.12) |

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

Dimension

H 1.6 mm



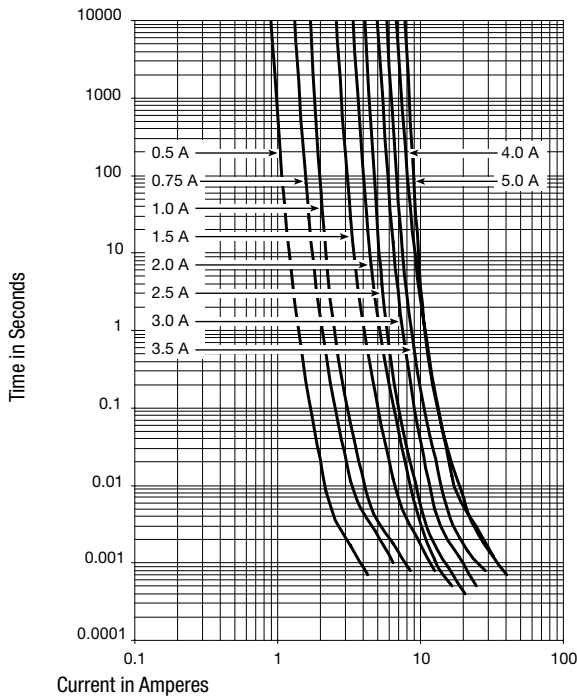
Soldering pads

Pre-Arcing Time


Rated Current I_n 1.0 x I_n min. 2.0 x I_n max.


| | | |
|-------------|-----|------|
| 0.5 A - 5 A | 4 h | 60 s |
|-------------|-----|------|


Time-Current-Curves



All Variants

| Rated Current [A] | Rated Voltage [VAC] | Rated Voltage [VDC] | Marking | Breaking Capacity | Voltage Drop 1.0 I_n max. [mV] | Voltage Drop 1.0 I_n typ. [mV] | Cold Resistance typ. [$m\Omega$] | Melting I^2t 8.0 I_n typ. [A ² s] |  | Order Number |
|-------------------|---------------------|---------------------|---------|-------------------|----------------------------------|----------------------------------|------------------------------------|--|---|--------------|
| 0.5 | 32 | 63 | F | 1) | 120 | 101 | 157 | 0.02 | ● | 3412.0113.11 |
| 0.5 | 32 | 63 | F | 1) | 120 | 101 | 157 | 0.02 | ● | 3412.0113.22 |
| 0.5 | 32 | 63 | F | 1) | 120 | 101 | 157 | 0.02 | ● | 3412.0113.24 |
| 0.5 | 32 | 63 | F | 1) | 120 | 101 | 157 | 0.02 | ● | 3412.0113.26 |
| 0.75 | 32 | 63 | G | 1) | 120 | 100 | 90 | 0.04 | ● | 3412.0114.11 |
| 0.75 | 32 | 63 | G | 1) | 120 | 100 | 90 | 0.04 | ● | 3412.0114.22 |
| 0.75 | 32 | 63 | G | 1) | 120 | 100 | 90 | 0.04 | ● | 3412.0114.24 |
| 0.75 | 32 | 63 | G | 1) | 120 | 100 | 90 | 0.04 | ● | 3412.0114.26 |
| 1 | 32 | 63 | H | 1) | 120 | 98 | 75 | 0.06 | ● | 3412.0115.11 |
| 1 | 32 | 63 | H | 1) | 120 | 98 | 75 | 0.06 | ● | 3412.0115.22 |
| 1 | 32 | 63 | H | 1) | 120 | 98 | 75 | 0.06 | ● | 3412.0115.24 |
| 1 | 32 | 63 | H | 1) | 120 | 98 | 75 | 0.06 | ● | 3412.0115.26 |
| 1.5 | 32 | 63 | K | 1) | 120 | 73 | 44 | 0.14 | ● | 3412.0117.11 |
| 1.5 | 32 | 63 | K | 1) | 120 | 73 | 44 | 0.14 | ● | 3412.0117.22 |
| 1.5 | 32 | 63 | K | 1) | 120 | 73 | 44 | 0.14 | ● | 3412.0117.24 |
| 1.5 | 32 | 63 | K | 1) | 120 | 73 | 44 | 0.14 | ● | 3412.0117.26 |
| 2 | 32 | 32 | N | 1) | 120 | 70 | 27.5 | 0.25 | ● | 3412.0119.11 |
| 2 | 32 | 32 | N | 1) | 120 | 70 | 27.5 | 0.25 | ● | 3412.0119.22 |
| 2 | 32 | 32 | N | 1) | 120 | 70 | 27.5 | 0.25 | ● | 3412.0119.24 |
| 2 | 32 | 32 | N | 1) | 120 | 70 | 27.5 | 0.25 | ● | 3412.0119.26 |
| 2.5 | 32 | 32 | O | 1) | 120 | 75 | 23.5 | 0.4 | ● | 3412.0120.11 |
| 2.5 | 32 | 32 | O | 1) | 120 | 75 | 23.5 | 0.4 | ● | 3412.0120.22 |
| 2.5 | 32 | 32 | O | 1) | 120 | 75 | 23.5 | 0.4 | ● | 3412.0120.24 |

| Rated Current [A] | Rated Voltage [VAC] | Rated Voltage [VDC] | Marking | Breaking Capacity | Voltage Drop 1.0 In max. [mV] | Voltage Drop 1.0 In typ. [mV] | Cold Resistance typ. [mΩ] | Melting I ² t 8.0 In typ. [A ² s] |  | Order Number |
|-------------------|---------------------|---------------------|---------|-------------------|-------------------------------|-------------------------------|---------------------------|---|---|--------------|
| 2.5 | 32 | 32 | O | 1) | 120 | 75 | 23.5 | 0.4 | ● | 3412.0120.26 |
| 3 | 32 | 32 | P | 1) | 120 | 80 | 18.6 | 0.58 | ● | 3412.0121.11 |
| 3 | 32 | 32 | P | 1) | 120 | 80 | 18.6 | 0.58 | ● | 3412.0121.22 |
| 3 | 32 | 32 | P | 1) | 120 | 80 | 18.6 | 0.58 | ● | 3412.0121.24 |
| 3 | 32 | 32 | P | 1) | 120 | 80 | 18.6 | 0.58 | ● | 3412.0121.26 |
| 3.5 | 32 | 32 | R | 1) | 120 | 85 | 16 | 0.8 | ● | 3412.0122.11 |
| 3.5 | 32 | 32 | R | 1) | 120 | 85 | 16 | 0.8 | ● | 3412.0122.22 |
| 3.5 | 32 | 32 | R | 1) | 120 | 85 | 16 | 0.8 | ● | 3412.0122.24 |
| 3.5 | 32 | 32 | R | 1) | 120 | 85 | 16 | 0.8 | ● | 3412.0122.26 |
| 4 | 32 | 32 | S | 1) | 120 | 80 | 12.5 | 1.1 | ● | 3412.0123.11 |
| 4 | 32 | 32 | S | 1) | 120 | 80 | 12.5 | 1.1 | ● | 3412.0123.22 |
| 4 | 32 | 32 | S | 1) | 120 | 80 | 12.5 | 1.1 | ● | 3412.0123.24 |
| 4 | 32 | 32 | S | 1) | 120 | 80 | 12.5 | 1.1 | ● | 3412.0123.26 |
| 5 | 32 | 32 | T | 1) | 120 | 70 | 10 | 1.5 | ● | 3412.0124.11 |
| 5 | 32 | 32 | T | 1) | 120 | 70 | 10 | 1.5 | ● | 3412.0124.22 |
| 5 | 32 | 32 | T | 1) | 120 | 70 | 10 | 1.5 | ● | 3412.0124.24 |
| 5 | 32 | 32 | T | 1) | 120 | 70 | 10 | 1.5 | ● | 3412.0124.26 |

 Most Popular.

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

1) 50 A @ 32 VAC , p.f. ≥ 0.95 / 50 A @ 32 VDC

Packaging Unit

- .xx = .11 Blister Tape of 100 pcs. in Plastic Bag
- .xx = .22 Blister Tape 18 cm Reel (1000 pcs.)
- .xx = .24 Blister Tape 18 cm Reel (5000 pcs.)
- .xx = .26 Blister Tape 33 cm Reel (15000 pcs.)