

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



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



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

Unique Selling Proposition

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

Standards

- IEC 60127-4/2
- UL 248-14
- CSA C22.2 no. 248.14
- Qualification according to AEC-Q200 on request

Approvals

- Approval Reference Type: UMT 250
- VDE Certificate Number: 40013121
- UL File Number: E41599

Applications

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

References

[Packaging Details](#)
[Fuse Kit UMT 250 / UMT 250](#)

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](#), [Microsite](#)

[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](#)

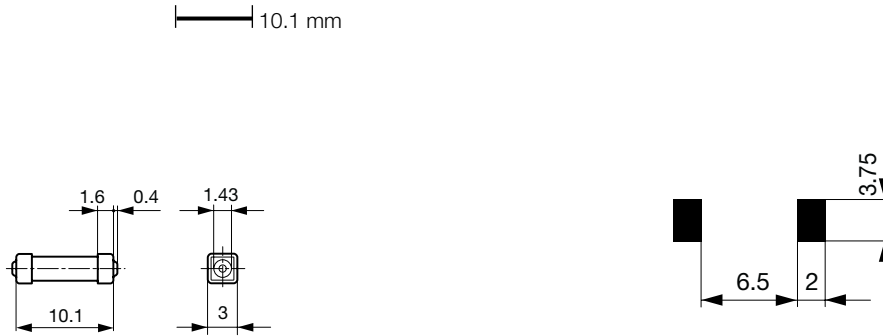
Technical Data

| | |
|------------------------------|---|
| Rated Voltage | 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 | Ceramic |
| Material: Terminals | Tin-Plated Copper Alloy |
| 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 Soldering Profile |
| Solderability | 245 °C / 3sec acc. to IEC 60068-2-58, Test Td |
| Resistance to Soldering Heat | 260 °C / 40sec acc. to IPC/JEDEC J-STD-020D, 1 cycle |
| Life Test | MIL-STD-202, Method 108A (1000h @ 0.42*In @ 70°C) |
| 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) |
| 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) |

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

Dimension [mm]

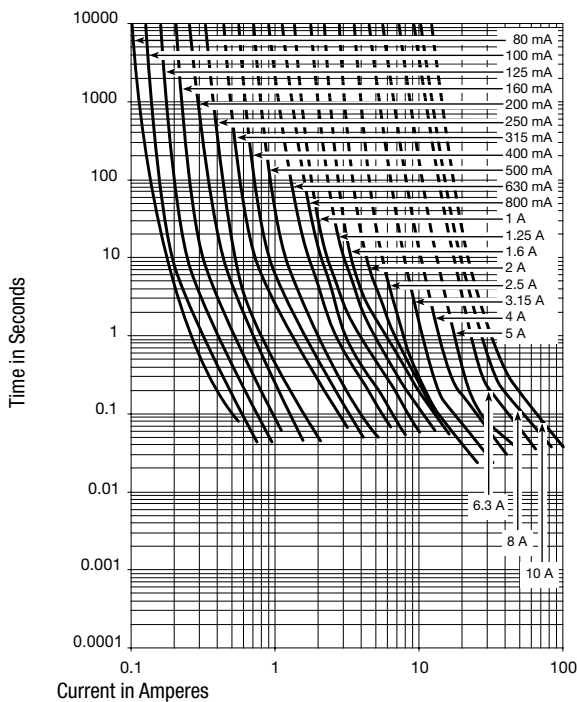


Soldering pads

Pre-Arcing Time








| Rated Current I_n | $1.0 \times I_n$ min. | $1.25 \times I_n$ min. | $2.0 \times I_n$ max. | $10.0 \times I_n$ min. | $10.0 \times I_n$ 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_n max. [mV] | Voltage Drop 1.0 I_n typ. [mV] | Power Dissipation 1.25 I_n max [mW] | Melting I^2t 10.0 I_n typ. [A ² 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 |

| 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 In max [mW] | Melting I ² t 10.0 Intyp. [A ² s] |  |  |  |  |  |  |  | Order Number |
|-------------------|---------------------|---------------------|-------------------|-------------------------------|-------------------------------|------------------------------------|---|---|---|---|---|---|---|---|--------------|
| 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 |
| 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 |

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- 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

| 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 In max [mW] | Melting I ² t 10.0 Intyp. [A ² s] |      | Order Number |
|-------------------|---------------------|---------------------|-------------------|-------------------------------|-------------------------------|------------------------------------|---|--|--------------|
|-------------------|---------------------|---------------------|-------------------|-------------------------------|-------------------------------|------------------------------------|---|--|--------------|

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

| Packaging Unit | |
|----------------|---|
| | .xx = .11 Plastic Bag (100 pcs.) |
| | .xx = .24 Blister Tape 33 cm Reel (2000 pcs.) |