

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



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

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

Unique Selling Proposition

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

Applications

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

References

[Packaging Details](#)

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

Weblinks

[pdf datasheet](#), [html-datasheet](#), [General Product Information](#), [Packaging details](#), [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	250 VAC, 125 VDC
Rated current	0.08 - 10 A
Breaking Capacity	35 A - 200 A
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 / 3 sec acc. to IEC 60068-2-58, Test Td
Resistance to Soldering Heat	260 °C / 40 sec acc. to IPC/JEDEC J-STD-020D, 1 cycle
Life Test	MIL-STD-202, Method 108A (1000h @ 0.42"ln @ 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)

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 134485 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
	VDE Approvals	VDE	VDE Certificate Number: 40013121
	UL Approvals	UL	UL File Number: E41599
	UL Approvals	UL	UL File Number: E41599
	CQC Approvals	CQC	CCC File Number: CQC11012062827
	KTL Approvals	KTL	Korea Testing Laboratory
	METI Approvals	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 60950	IEC 60950-1 includes the basic requirements for the safety of information technology equipment.

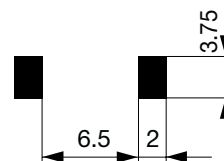
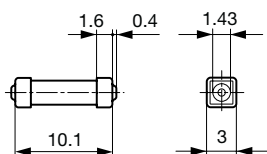
Compliances

The product complies with following Guide Lines

Identification	Details	Initiator	Description
	RoHS	SCHURTER AG	EU Directive RoHS 2011/65/EU
	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.
	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.
		SCHURTER AG	Universal Modular Fuse meets the standard IEC 60127-4
	Automotive	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]

10.1 mm

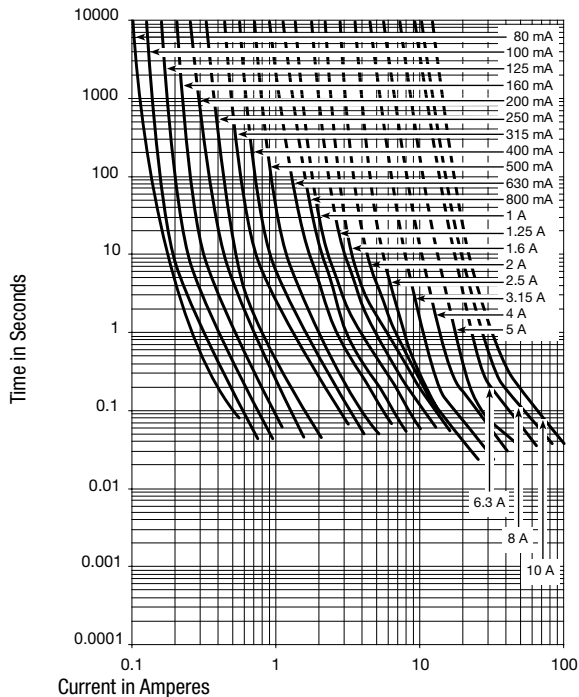


Soldering pads

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 _n max. [mV]	Voltage Drop 1.0 I _n typ. [mV]	Power Dissipation 1.25 I _n max [mW]	Melting I ² t 10.0 Intyp. [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
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

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 _{pt} 10.0 Intyp. [A²s]							Order Number
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

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 Plastic Bag (100 pcs.)
.xx = .24 Blister Tape 33 cm Reel (2000 pcs.)