UMT 250

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



IEC 60127-4 · 250 VAC · up to 250 VDC · Time-Lag T

See below:
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
- Impermeable to potting compound used to achieve hermetic seal for use in intrinsically safe applications according to ATEx and IECEx requirements.

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

Fuse Kit Fuse Kit UMT 250 / UMZ 250

Weblinks

pdf data sheet, html datasheet, General Product Information, Distributor-Stock-Check, Detailed request for product, Microsite

Application Note Primary Protection in Equipmentwith further information on increased Pulse Strength and their test conditions according to international standards see Impulse Withstand Voltage

Technical Data

Rated Voltage	250 VAC, up to 250 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	Ceramics
Material: Terminals	Copper alloy, tin-plated
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 / 10 sec acc. to IEC 60068-2-58
Moisture Sensitivity Level	MSL 1, J-STD-020
Flammability	min. UL 94V-1 (acc. to EIA/IS-722, Test 4.12)
Moisture Resistance Test	MIL-STD-202, Method 106 (50 cycles in a temp./mister chamber)
Operational Life	MIL-STD-202, Method 108 (1000h @ 0.42*In @ 70°C)
Mechanical Shock	MIL-STD-202, Method 213 Condition A
Resistance to Solvents	MIL-STD-202, Method 215
Terminal Strength	MIL-STD-202, Method 211A (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: UMT 250

Approval Logo	Certificates	Certification Body	Description
	VDE Approvals	VDE	VDE Certificate Number: 40013121
	UL Approvals	UL	UL File Number: UL E300707
	UL Approvals	UL	UR File Number: UR E41599
	CQC Approvals	CQC	CQC Certificate 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
	Suitable for applications acc.	IEC/UL 62368-1	Audio/video, information and communication technology equipment - Part 1: Safety requirements

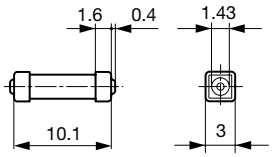
Compliances

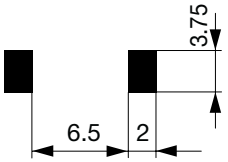
The product complies with following Guide Lines

Identification	Details	Initiator	Description
	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.
	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]

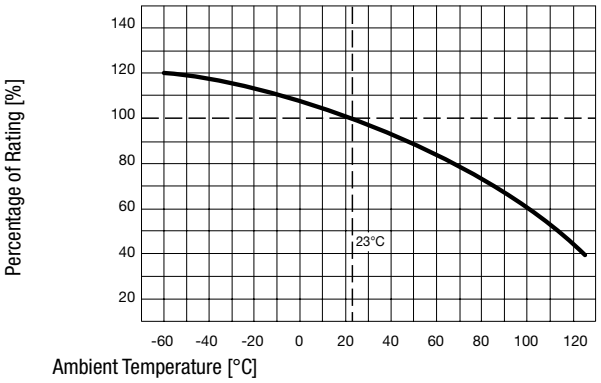
10.1 mm





Soldering pads

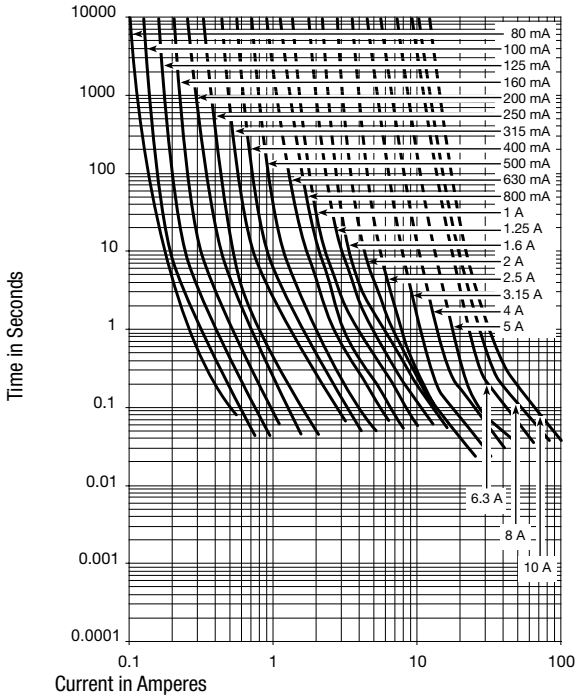
Derating Curves



Pre-Arcing Time

Rated Current In	1.0 x In min.	1.25 x In min.	2.0 x In max.	10.0 x In min.	10.0 x In 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^2s]							Order Number	
0.08	250	250	1)	1300	1030	200	0.022	●		●		●	●	3403.0155.11	
0.08	250	250	1)	1300	1030	200	0.022	●		●		●	●	3403.0155.24	
0.1	250	125	2)	1300	870	200	0.04	●		●		●	●	3403.0156.11	
0.1	250	125	2)	1300	870	200	0.04	●		●		●	●	3403.0156.24	
0.125	250	125	2)	1000	700	200	0.055	●		●		●	●	3403.0157.11	
0.125	250	125	2)	1000	700	200	0.055	●		●		●	●	3403.0157.24	
0.16	250	125	2)	1000	540	240	0.057	●		●		●	●	3403.0158.11	
0.16	250	125	2)	1000	540	240	0.057	●		●		●	●	3403.0158.24	
0.2	250	125	2)	1000	460	500	0.092	●		●		●	●	3403.0159.11	
0.2	250	125	2)	1000	460	500	0.092	●		●		●	●	3403.0159.24	
0.25	250	125	2)	800	395	500	0.2	●		●		●	●	3403.0160.11	
0.25	250	125	2)	800	395	500	0.2	●		●		●	●	3403.0160.24	
0.315	250	125	2)	750	343	500	0.27	●	●	●		●	●	3403.0161.11	
0.315	250	125	2)	750	343	500	0.27	●	●	●		●	●	3403.0161.24	
0.4	250	125	2)	700	290	500	0.4	●	●	●		●	●	3403.0162.11	
0.4	250	125	2)	700	290	500	0.4	●	●	●		●	●	3403.0162.24	
0.5	250	125	2)	600	257	500	0.54	●	●	●		●	●	3403.0163.11	
0.5	250	125	2)	600	257	500	0.54	●	●	●		●	●	3403.0163.24	
0.63	250	125	2)	500	216	500	1.1	●	●	●		●	●	3403.0164.11	
0.63	250	125	2)	500	216	500	1.1	●	●	●		●	●	3403.0164.24	
0.8	250	125	2)	400	190	500	1.4	●	●	●		●	●	3403.0165.11	
0.8	250	125	2)	400	190	500	1.4	●	●	●		●	●	3403.0165.24	
1	250	125	3)	300	164	500	2.8	●	●	●	●	●	●	3403.0166.11	
1	250	125	3)	300	164	500	2.8	●	●	●	●	●	●	3403.0166.24	
1.25	250	125	3)	300	138	1000	4.5	●	●	●	●	●	●	3403.0167.11	
1.25	250	125	3)	300	138	1000	4.5	●	●	●	●	●	●	3403.0167.24	
1.6	250	125	3)	300	124	1000	6.9	●	●	●	●	●	●	3403.0168.11	
1.6	250	125	3)	300	124	1000	6.9	●	●	●	●	●	●	3403.0168.24	

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^2s]							Order Number
2	250	125	3)	300	102	1000	7.3	●	●	●	●	●	●	3403.0169.11
2	250	125	3)	300	102	1000	7.3	●	●	●	●	●	●	3403.0169.24
2.5	250	125	3)	300	90	1200	7.5	●	●	●	●	●	●	3403.0170.11
2.5	250	125	3)	300	90	1200	7.5	●	●	●	●	●	●	3403.0170.24
3.15	250	125	3)	300	95	1500	14	●	●	●	●	●	●	3403.0171.11
3.15	250	125	3)	300	95	1500	14	●	●	●	●	●	●	3403.0171.24
4	250	125	3)	300	78	2000	26	●	●	●	●	●	●	3403.0172.11
4	250	125	3)	300	78	2000	26	●	●	●	●	●	●	3403.0172.24
5	250	125	4)	300	76	2500	38	●		●	●	●	●	3403.0173.11
5	250	125	4)	300	76	2500	38	●		●	●	●	●	3403.0173.24
6.3	250	125	4)	300	71	3000	66	●		●	●	●	●	3403.0174.11
6.3	250	125	4)	300	71	3000	66	●		●	●	●	●	3403.0174.24
8	250	125	5)	220	72	3000	113			●	●			3403.0175.11
8	250	125	5)	220	72	3000	113			●	●			3403.0175.24
10	250	125	5)	220	73	3500	166			●	●			3403.0176.11
10	250	125	5)	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 / 100 A @ 250 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 / 100 A @ 125 VDC

2) UL: 200 A @ 277 VAC / 100 A @ 125 VDC / 35 A @ 250 VDC / 200 A @ 63 VAC/DC

3) IEC: 200 A @ 250 VAC / 100 A @ 125 VDC

3) UL: 200 A @ 277 VAC / 100 A @ 125 VDC / 35 A @ 250 VDC / 200 A @ 63 VAC/DC

3) PSE: 100 A @ 250 VAC

4) IEC: 100 A @ 250 VAC / 100 A 125 VDC

4) UL: 100 A @ 250 VAC / 100 A @ 125 VDC / 35 A @ 250 VDC / 200 A @ 63 VAC/DC

4) PSE: 100 A @ 250 VAC

5) UL: 35 A @ 250 VAC / 35 A @ 125 VDC / 200 A @ 63 VAC/DC

5) 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
acc. IEC 60286-3 Type 2a

.xx = .11	100 pcs in ESD-plastic bag
.xx = .24	2000 pcs. in tape [W: 24mm and P1: 8mm] on reel [A: 33cm]

11.07.2022

The specifications, descriptions and illustrations indicated in this document are based on current information. All content is subject to modifications and amendments. Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability and test each product selected for their own applications.