

Surface Mount Fuse with Clip, 4.2 x 11.1 mm, Time-Lag T, UMZ 250 = UMT 250 (Au) + UMC 250



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

See below:

[Approvals and Compliances](#)

Description

- VDE/UL Approvals UMT 250, UMT 250 (Au), UMC 250, see variants
- High breaking capacity of 200 A @ 250 VAC (IEC)
- UL approval for 0.08 A - 4 A 277 VAC and 250 VDC

Unique Selling Proposition

- Compact design
- Maximum breaking capacity at minimal footprint

Applications

- Primary protection on SMD PCBs

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](#)

Technical Data

Rated Voltage	250 VAC, 125 VDC
Rated current	0.08 - 4 A
Breaking Capacity	200 A
Characteristic	Time-Lag T
Mounting	PCB, SMT
Admissible Ambient Temp.	-40 °C to 85 °C
Climatic Category	40/085/21 acc. to IEC 60068-1
Material: Housing	Ceramics
Material: Terminals	Gold-Plated Copper Alloy
Storage Conditions	0 °C to 60 °C, max. 70% r.h.
Product Marking	 Rated current, Rated Voltage, Characteristic, Breaking Capacity

Soldering Methods	Reflow Soldering Profile
Solderability	245 °C / 3 sec acc. to IEC 60068-2-58
Resistance to Soldering Heat	260 °C / 10 sec acc. to IEC 60068-2-58
Moisture Sensitivity Level	MSL 1, J-STD-020
Moisture Sensitivity Level	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	Cleaning with common solvents
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: UMZ 250

Approval Logo	Certificates	Certification Body	Description
	VDE Approvals	VDE	VDE Certificate Number: 40013121 / 40023291
	UL Approvals	UL	UR File Number: E39328

Product standards

Product standards that are referenced

Organization	Design	Standard	Description
	Designed according to	IEC 60127-6	Miniature fuses. Part 6. Fuse-holders for miniature fuse-links
	Designed according to	IEC 60127-4	Miniature fuses. Part 4. Universal modular fuse-links for through-hole and surface mount types
	Designed according to	UL 248-14 / 4248-1	Low voltage fuses - Part 14: Supplemental fuses
	Designed according to	CSA22.2 No. 248.14 / No. 4248.1	Low-Voltage Fuses - Part 14: Supplemental Fuses

Application standards

Application standards where the product can be used

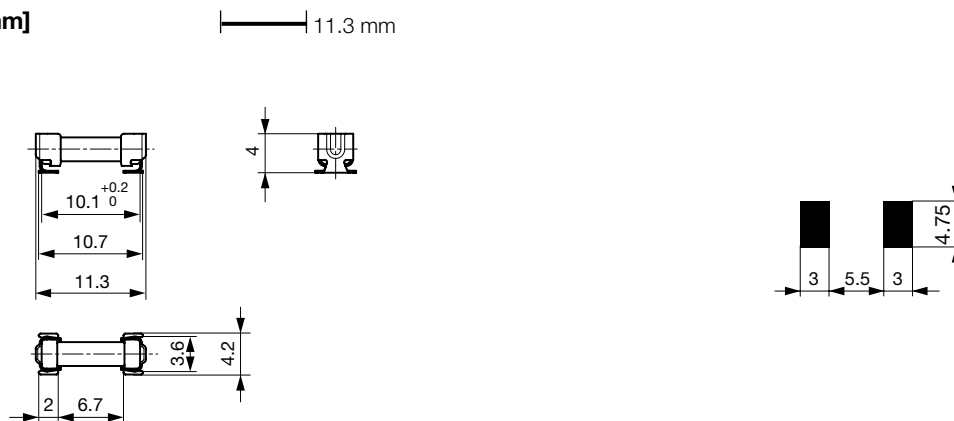
Organization	Design	Standard	Description
	Suitable for applications acc.	IEC/UL 62368-1	Audio/video, information and communication technology equipment - Part 1: Safety requirements

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
	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.

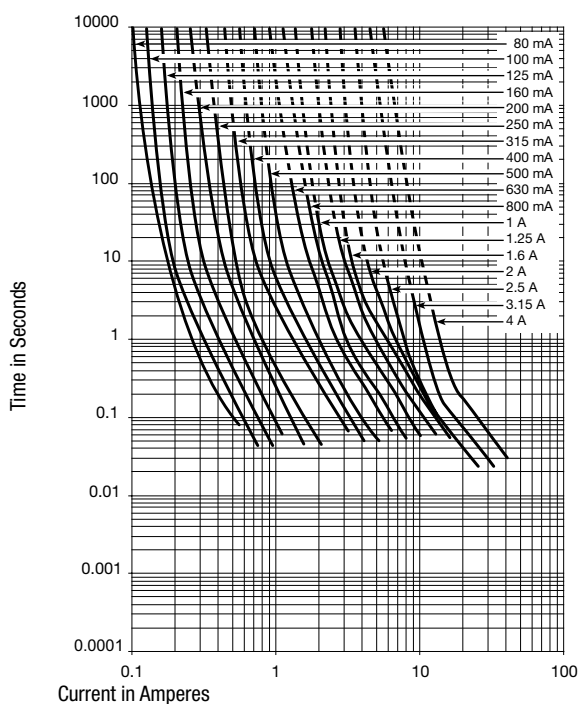
Dimension [mm]



Pre-Arcing Time

Rated Current In	1.25 x In min.	2.0 x In max.	10.0 x In min.	10.0 x In max.
0.08 A - 4.0 A	60 min	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 I _n typ. [A ² s]		Order Number
0.08	250	250	1)	1300	1030	200	0.022	●	3404.2405.11
0.08	250	250	1)	1300	1030	200	0.022	●	3404.2405.22
0.1	250	125	2)	1300	850	200	0.04	● ●	3404.2406.11
0.1	250	125	2)	1300	850	200	0.04	● ●	3404.2406.22
0.125	250	125	2)	1000	700	200	0.055	● ●	3404.2407.11
0.125	250	125	2)	1000	700	200	0.055	● ●	3404.2407.22
0.16	250	250	1)	1000	540	240	0.057	● ●	3404.2408.11
0.16	250	250	1)	1000	540	240	0.057	● ●	3404.2408.22
0.2	250	125	2)	1000	460	500	0.092	● ●	3404.2409.11
0.2	250	125	2)	1000	460	500	0.092	● ●	3404.2409.22
0.25	250	125	2)	800	395	500	0.2	● ●	3404.2410.11
0.25	250	125	2)	800	395	500	0.2	● ●	3404.2410.22
0.315	250	125	2)	750	344	500	0.27	● ●	3404.2411.11
0.315	250	125	2)	750	344	500	0.27	● ●	3404.2411.22
0.4	250	125	2)	700	320	500	0.4	● ●	3404.2412.11
0.4	250	125	2)	700	320	500	0.4	● ●	3404.2412.22
0.5	250	125	2)	600	264	500	0.54	● ●	3404.2413.11
0.5	250	125	2)	600	264	500	0.54	● ●	3404.2413.22
0.63	250	125	2)	500	216	500	1.1	● ●	3404.2414.11
0.63	250	125	2)	500	216	500	1.1	● ●	3404.2414.22
0.8	250	125	2)	400	174	500	1.4	● ●	3404.2415.11
0.8	250	125	2)	400	174	500	1.4	● ●	3404.2415.22
1	250	125	3)	300	174	500	2.8	● ●	3404.2416.11
1	250	125	3)	300	174	500	2.8	● ●	3404.2416.22
1.25	250	125	3)	300	140	1000	4.5	● ●	3404.2417.11
1.25	250	125	3)	300	140	1000	4.5	● ●	3404.2417.22
1.6	250	125	3)	300	130	1000	6.9	● ●	3404.2418.11
1.6	250	125	3)	300	130	1000	6.9	● ●	3404.2418.22

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 I _n typ. [A²s]		Order Number
2	250	125	3)	300	103	1000	7.3	● ●	3404.2419.11
2	250	125	3)	300	103	1000	7.3	● ●	3404.2419.22
2.5	250	125	3)	300	90	1200	7.5	● ●	3404.2420.11
2.5	250	125	3)	300	90	1200	7.5	● ●	3404.2420.22
3.15	250	125	3)	300	95	1500	14	● ●	3404.2421.11
3.15	250	125	3)	300	95	1500	14	● ●	3404.2421.22
4	250	125	3)	300	83	2000	26	● ●	3404.2422.11
4	250	125	3)	300	83	2000	26	● ●	3404.2422.22

Availability for all products can be searched real-time: <https://www.schurter.com/en/info-center/support-tools/stock-check-distributors>

- 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

Approval Overview

UMT 250 -> Fuse with tin-plated caps, Approval Status: VDE, UL LISTED, cURus, Free of CCC, PSE JET, KTL
UMT 250 (Au) -> Fuse with gold-plated caps, Approval Status: VDE, cURus and PSE JET
UMC 250 -> Clip, Approval Status: VDE UG Mark and cURus

UMZ 250 = UMT 250 (Au) + UMC 250

There is no approval existing for the combination fuse and clip UMZ 250, but the fuse and the clip are fully approved independently at VDE/UL. See details above.

In the reflow soldering process, the fuse must have gold-plated caps, otherwise fuse and clip would be soldered together. For fuse replacement in the field, a standard UMT 250 fuse with tin-plated caps can be used. This is not allowed for the 80 mA version. This must be replaced with an original UMZ with gold caps.

It is not allowed to replace higher rated current than 4 A in the clip.

Packaging Unit	.xx = .11	100 pcs. in tape in ESD-plastic bag
acc. IEC 60286-3 Type 2a	.xx = .22	1000 pcs. in tape [W: 24mm and P1: 8mm] on reel [A: 33cm]