Surface Mount Fuse with Clip, 4.2 x 11.3 mm, Quick-Acting F, UMK 250 = UMF 250 (Au) + UMC 250

Surface Mount Fuse with Clip

IEC 60127-4 · 250 VAC · 125 VDC · Quick-Acting F

See below:
Approvals and Compliances

Description

- VDE/UL Approvals, UMF 250, UMF 250 (Au), UMC 250 , see variants
- High breaking capacity of up to 200 A @ 250 VAC
- UL approval for 0.05 A - 4 A @ 250 VAC and 125 VDC

Applications

- Primary protection on SMD PCBs

References

Fuse Kit Fuse Kit UMF 250 / UMK 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	0.5 - 4 A
Breaking Capacity	100-200 A
Characteristic	Quick-Acting F
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 40 °C, max. 70% r.h.
Product Marking	S, 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	(acc. to EIA/IS-722, Test 4.4.3) 10% rated current. Temperatur change between 25°C und 65°C at 100% relative humidity. Duration: 24h each cycle, total 10 cycles
Operational Life	(acc. to EIA/IS-722, Test 4.4.1) 1000h @ 0.60 x In @ 70°C
Mechanical Shock	MIL-STD-202, Method 213 Condition A
Resistance to Solvents	Cleaning with common solvents
Terminal Strength	(acc. to EIA/IS-722, Test 4.5.5) (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: UMK 250

Approval Logo	Certificates	Certification Body	Description
	VDE Approvals	VDE	VDE Certificate Number: 40027880 / 40023291
c UL us	UL Approvals	UL	UR File Number: E41599

Product standards

Product standards that are referenced

Organization	Design	Standard	Description
IEC	Designed according to	IEC 60127-6	Miniature fuses. Part 6. Fuse-holders for miniature fuse-links
IEC	Designed according to	IEC 60127-4	Miniature fuses. Part 4. Universal modular fuse-links for through-hole and surface mount types
UL	Designed according to	UL 248-14 / 4248-1	Low voltage fuses - Part 14: Supplemental fuses
CSA Group	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
IEC	Suitable for applications acc.	IEC/UL 62368-1	Audio/video, information and communication technology equipment - Part 1: Safety requirements

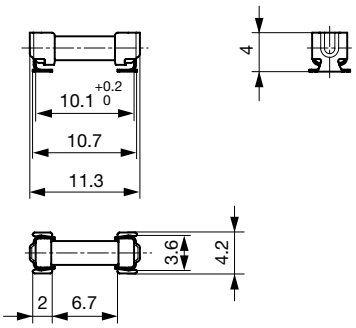
Compliances

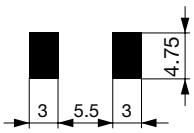
The product complies with following Guide Lines

Identification	Details	Initiator	Description
CE	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	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 COMPLIANT	RoHS	SCHURTER AG	Directive RoHS 2011/65/EU, Amendment (EU) 2015/863
50	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.
Halogen Free HF	Halogen Free	SCHURTER AG	SCHURTER strives to offer our customers halogen free products.
REACH	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]

11.3 mm



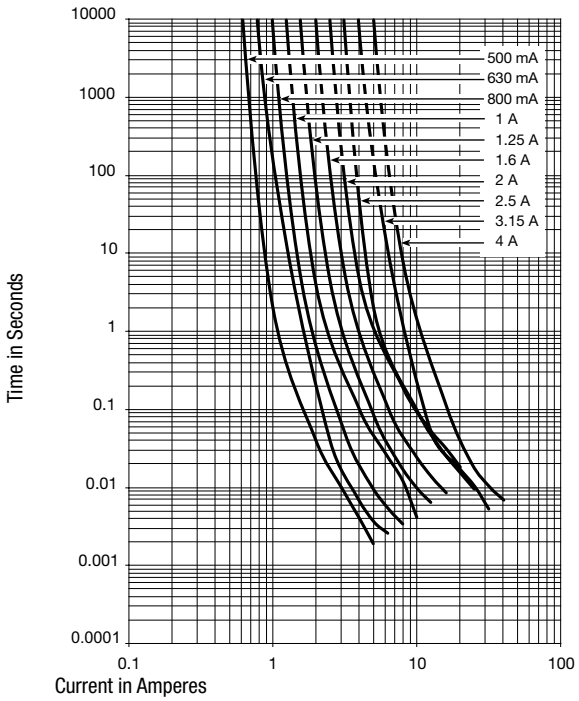


Soldering pads

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.
0.5 A - 4.0 A	-	60 min	120 s	1 ms	10 ms

Time-Current-Curves



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]	VDE	cULus	Order Number
0.5	250	125	1)	600	430	500	0.042	●	●	3404.2463.11
0.5	250	125	1)	600	430	500	0.042	●	●	3404.2463.22
0.63	250	125	1)	500	350	500	0.092	●	●	3404.2464.11
0.63	250	125	1)	500	350	500	0.092	●	●	3404.2464.22
0.8	250	125	1)	400	300	500	0.21	●	●	3404.2465.11
0.8	250	125	1)	400	300	500	0.21	●	●	3404.2465.22
1	250	125	1)	300	250	500	0.4	●	●	3404.2466.11
1	250	125	1)	300	250	500	0.4	●	●	3404.2466.22
1.25	250	125	2)	300	220	1000	1	●	●	3404.2467.11
1.25	250	125	2)	300	220	1000	1	●	●	3404.2467.22
1.6	250	125	2)	300	190	1000	2.1	●	●	3404.2468.11
1.6	250	125	2)	300	190	1000	2.1	●	●	3404.2468.22
2	250	125	2)	300	200	1000	3.26	●	●	3404.2469.11
2	250	125	2)	300	200	1000	3.26	●	●	3404.2469.22
2.5	250	125	2)	300	160	1200	4.8	●	●	3404.2470.11
2.5	250	125	2)	300	160	1200	4.8	●	●	3404.2470.22
3.15	250	125	2)	300	100	1500	5.17	●	●	3404.2471.11
3.15	250	125	2)	300	100	1500	5.17	●	●	3404.2471.22
4	250	125	2)	300	100	2000	9.4	●	●	3404.2472.11
4	250	125	2)	300	100	2000	9.4	●	●	3404.2472.22

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

1) IEC: 100 A @ 250 VAC / 100 A @ 125 VDC, resistive

1) UL: 200 A @ 250 VAC, p.f. ≥ 0.99 / 200 A @ 125 VDC, resistive

2) IEC: 100 A @ 250 VAC / 100 A @ 125 VDC, resistive

2) UL: 100 A @ 250 VAC, p.f. ≥ 0.99 / 100 A @ 125 VDC, resistive

Approval Overview

UMF 250 -> Fuse with tin-plated caps, Approval Status: VDE, UL LISTED, cURus, Free of CCC, PSE JET, KTL

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

UMF 250 (Au) -> Fuse with gold-plated caps, Approval Status: VDE Mark, cURus and PSE JET

UMC 250 -> Clip, Approval Status: VDE UG Mark and cURus

UMK 250 = UMF 250 (Au) + UMC 250

There is no approval existing for the combination fuse and clip UMK 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 UMF 250 fuse with tin-plated caps can be used.

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

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

01.09.2025