

Surface Mount Fuse, 5.3 x 16 mm, Super-Time-Lag TT, 125 VAC / 125 VDC, Breaking Capacity ≤ 1000 A



Fail Safe Device

UL 248-14 · 125 VAC · 125 VDC · Super-Time-Lag TT

See below:

[Approvals and Compliances](#)

Description

- 5 rated currents from 5 A to 20 A
- Square design: 5.3 x 16
- Impermeable to potting compound used to achieve hermetic seal for use in intrinsically safe applications according to ATEX and IECEx requirements.

Unique Selling Proposition

- Suitable as Fail Safe Device
- Very high melting integral
- Precisely defined melting times (min/max)

Applications

- Avionics
- Wire protection
- Fail-Safe Applications
- Suitable for motor drive applications with medium to long motor cables

Other versions on request

- Different Up Screenings
- Extensive Test Reports
- Visual Inspection according MIL-PRF 55342

References

Weblinks

[pdf data sheet](#), [html datasheet](#), [General Product Information](#), [Distributor-Stock-Check](#), [Detailed request for product](#), [Microsite](#), [Video](#)

[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	125 VAC, 125 VDC
Rated current	5 - 20 A
Breaking Capacity	up to 1000 A
Characteristic	Super-Time-Lag TT
Mounting	PCB, SMT
Admissible Ambient Temp.	-55 °C to 125 °C
Climatic Category	55/125/21 acc. to IEC 60068-1
Material: Housing	Ceramics
Material: Terminals	Ni/Sn-Plated Copper Alloy
Unit Weight	1.42 g
Storage Conditions	0 °C to 40 °C, max. 70% r.h.
Product Marking	 Rated current, Voltage, Characteristic, Breaking Capacity, Approvals

Soldering Methods	Reflow Soldering Profile
Solderability	JESD22-B102E, Method 1
Resistance to Soldering Heat	JEDEC J-STD-020
Moisture Sensitivity Level	MSL 1, J-STD-020
Moisture Sensitivity Level	MIL-STD-202, Method 106
Thermal Shock	MIL-STD-202, Method 107
Operational Life	MIL-STD-202, Method 108 Condition F
Load Humidity Test	MIL-STD-202, Method 103
Vibration, High Frequency	MIL-STD-202, Method 204 Condition C
Mechanical Shock	MIL-STD-202, Method 213 Condition C
Resistance to Solvents	MIL-STD-202, Method 215
Temperature Cycling	JESD22 Method JA-104
Board Flex	AEC-Q200-005

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-W

Approval Logo	Certificates	Certification Body	Description
	UL Approvals	UL	UR File Number: E41599

Product standards

Product standards that are referenced

Organization	Design	Standard	Description
	Designed according to	IEC 60127-7	Miniature fuses - Part 7: Miniature fuse-links for special applications
	Designed according to	UL 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

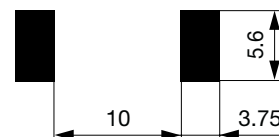
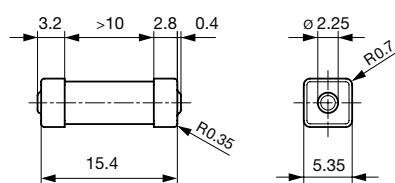
Compliances

The product complies with following Guide Lines

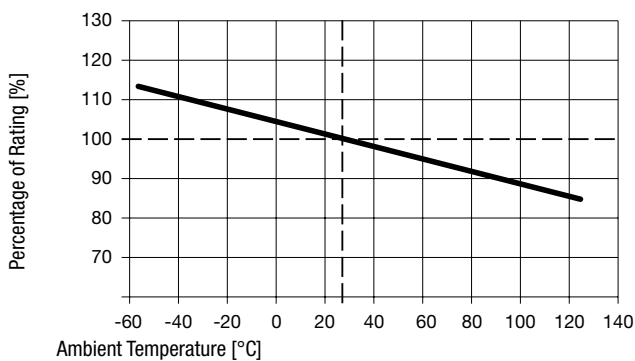
Identification	Details	Initiator	Description
	CE declaration of conformity	SCHURTER AG	The CE marking declares that the product complies with the applicable requirements laid down in the harmonisation of Community legislation on its affixing in accordance with EU Regulation 765/2008.
	UKCA declaration 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.
	Halogen Free	SCHURTER AG	SCHURTER strives to offer our customers halogen free products.
	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]

Soldering pads



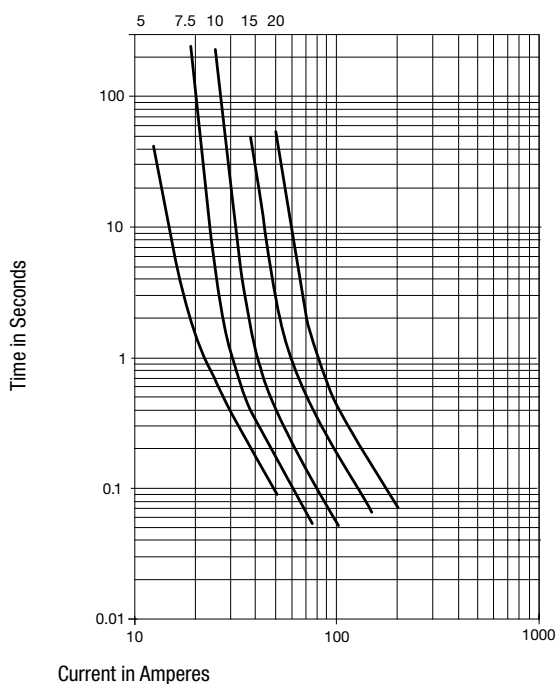
Derating Curves



Pre-Arcing Time

Rated Current I _n	1.0 x I _n min.	2.5 x I _n min.	4.0 x I _n min.	4.0 x I _n max.	10.0 x I _n min.	10.0 x I _n max.
5 A - 20 A	4 h	3.5 s	600 ms	20 s	25 ms	1 s

Time-Current-Curves



All Variants

Rated Current [A]	Rated Voltage [VAC]	Rated Voltage [VDC]	Breaking Capacity	Voltage Drop 1.0 I _n typ. [mV]	Power Dissipation 1.0 I _n typ. [mW]	Melting I ² t 10.0 I _n typ. [A ² s]		Packaging [PCS]	Order Number
5	125	125	1)	80	400	230	●	100	3-122-712
5	125	125	1)	80	400	230	●	1500	3-122-713
7.5	125	125	2)	40	300	320	●	100	3-122-714
7.5	125	125	2)	40	300	320	●	1500	3-122-715
10	125	125	2)	41	420	510	●	100	3-122-716
10	125	125	2)	41	420	510	●	1500	3-122-717
15	125	125	2)	40	630	1480	●	100	3-122-718
15	125	125	2)	40	630	1480	●	1500	3-122-719
20	125	125	2)	40	835	2800	●	100	3-122-720
20	125	125	2)	40	835	2800	●	1500	3-122-721

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

1) UL = 350 A @ 125 VAC / 350 A @ 125 VDC

1) Internal tests = 1'500 A @ 125 VAC with $\cos(\varphi) \geq 0.75$ / 1500 A @ 250 VDC with $\tau < 0.3$ ms

2) UL = 350 A @ 125 VAC / 350 A @ 125 VDC

2) Internal tests = 1'000 A @ 125 VAC with $\cos(\varphi) \geq 0.75$ / 500 A @ 125 VDC with $\tau < 0.3$ ms

All measurements are carried out on a test board according to IEC 60127 with the following tracks:

5 A: Track width 5.0 mm, Cu layer 35 μ m

6.3 A, 7.5 A: Track width 7.5 mm, Cu layer 70 μ m

Rated Cur- rent [A]	Rated Vol- tage [VAC]	Rated Vol- tage [VDC]	Breaking Capacity	Voltage Drop 1.0 I _n typ. [mV]	Power Dissi- pation 1.0 I _n typ. [mW]	Melting I ² t 10.0 I _n typ. [A²s] 	Packaging [PCS]	Order Number
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10 A: Track width 7.5 mm, Cu layer 140 µm
15 A, 20 A: Track width 10 mm, Cu layer 140 µm

Packaging Unit	100 pcs in ESD-plastic bag
acc. IEC 60286-3 Type 2a	1500 pcs. in tape [W: 24mm and P1: 8mm] on reel [A: 33cm]