

UHS Fuse 50 - 100A, 32/50 VDC, 8.4 x 9.4 mm



Quick-Acting F

See below:
[Approvals and Compliances](#)

Description

- This fuse was specially developed for SELV applications with high rated currents for highest breaking capacity demands. Thanks to its design, the fuses tripping time minimizes excessive temperature dissipation at 2x rated current.

Unique Selling Proposition

- High breaking capacity up to 2000A
- Safe tripping in 10s at twice the rated current
- High range of operating temperature
- Small component height of 4.7 mm

Applications

- Automotive
- Telecom equipment
- Datacenter appliances
- Power tools

Weblinks

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

Technical Data

Rated current	50-100A
Breaking Capacity	2000A
Characteristic	Quick-Acting F
Mounting	PCB,SMT
PCB surface terminal temp.	-55 °C to 125 °C
Material: Housing	Polyphthalamid
Material: Terminals	Ni/Sn-Plated Copper Alloy
Unit Weight	0.53 g
Storage Conditions	0 °C to 40 °C, max. 70% r.h.
Product Marking	 , Marking, gR, Lot Code

Soldering Methods	Reflow Soldering Profile
Solderability	J-STD-002, Method B1 & Method D
Resistance to Soldering Heat	MIL-STD-202 Method 210, Condition K
Resistance to Soldering Heat	260 °C / 30sec acc. to IPC/JEDEC J-STD-020D, Level 1
Flammability	UL 94V-0
Operational Life	MIL-STD-202, Method 108
Load Humidity Test	MIL-STD-202, Method 103
Vibration, High Frequency	MIL-STD-202, Method 204
Mechanical Shock	MIL-STD-202, Method 213 Condition C
Resistance to Solvents	MIL-STD-202, Method 215
Temperature Cycling	JESD22-A104
Board Flex	AEC-Q200-005
Terminal Strength	AEC-Q200-006

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: UHS

Approval Logo	Certificates	Certification Body	Description
	UL Approvals	UL	UR File Number: E531402

Product standards

Product standards that are referenced

Organization	Design	Standard	Description
	Designed according to	UL 248-13	Low voltage fuses - Part 13: Semiconductor fuses
	Designed according to	CSA C22.2 No. 248.13:22	Low voltage fuses - Part 13: Semiconductor fuses

Compliances

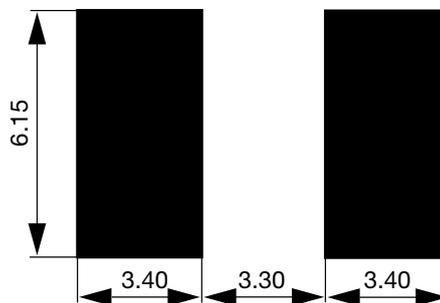
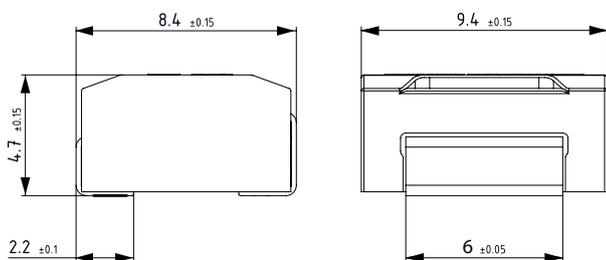
The product complies with following Guide Lines

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.
	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]

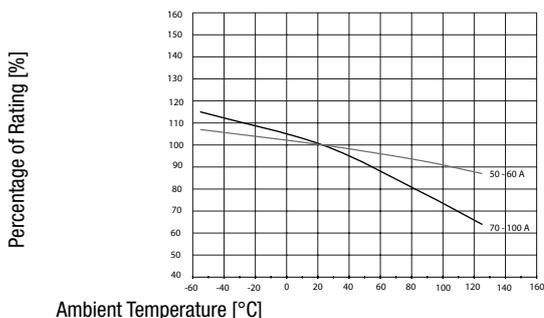


Reflow soldering pads



Derating Curves

Temperature Derating

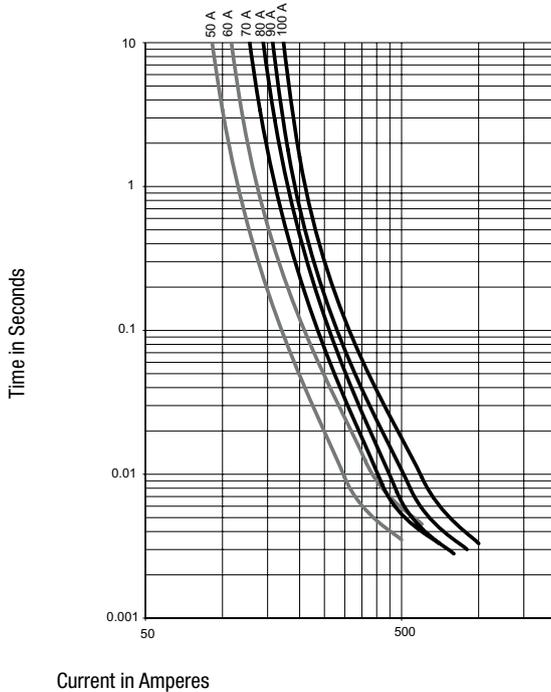


Ambient Temperature [°C]

Pre-Arcing Time

Rated Current I _n	1.0 x I _n min.	2.0 x I _n max.	10.0 x I _n min.	10.0 x I _n max.
50 A - 100 A	4 h	10 s	1 ms	10 ms

Time-Current-Curves



Variants

Rated Current [A]	Rated Voltage [VDC]	Marking	Breaking Capacity	Voltage Drop 1.0 I _n typ. [mV]	Cold Resistance typ. [mΩ]	Melting I ² t 10.0 I _n typ. [A ² s]	Packaging unit	Order Number
50	32	UHS 50A	1)	110	1.82	800	100	3-140-167
50	32	UHS 50A	1)	110	1.82	800	1000	3-140-168
60	32	UHS 60A	1)	115	1.5	1400	100	3-140-169
60	32	UHS 60A	1)	115	1.5	1400	1000	3-140-170
70	50	UHS 70A	2)	90	1.03	1500	100	3-140-171
70	50	UHS 70A	2)	90	1.03	1500	1000	3-140-172
80	50	UHS 80A	2)	95	0.88	1700	100	3-140-173
80	50	UHS 80A	2)	95	0.88	1700	1000	3-140-174
90	50	UHS 90A	2)	105	0.77	2300	100	3-140-175
90	50	UHS 90A	2)	105	0.77	2300	1000	3-140-176
100	50	UHS 100A	2)	110	0.71	3200	100	3-140-177
100	50	UHS 100A	2)	110	0.71	3200	1000	3-140-178

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

Breaking Capacity:

- 1) 1000 A @ 32 VDC, 1300 A @ 24 VDC, 1500 A @ 16 VDC
- 2) 600 A @ 50 VDC, 1000 A @ 32 VDC, 1300 A @ 24 VDC, 2000 A @ 16 VDC

All measurements are carried out on a test board according to IEC 60127, track width 22 mm, Cu layer 210 μm.

Packaging Unit

acc. IEC 60286-3 Type 2a

1000 pcs. in tape [W: 24mm and P1: 12mm] on reel [A: 33cm]
 100 pcs. in tape [W: 24mm and P1: 12mm] in ESD plastic bag

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.