V10/23

UHP SMD Fuse 100 A, 80 VDC, 11.4 x 10.2 mm

new

80 VDC · 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 3000 A
- Safe tripping in 15 s at twice the rated current
- High range of operating temperature

Applications

- Automotive
- Datacenter appliances
- Telecom equipment
- Power tools

Weblinks

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

Technical Data

Rated Voltage	80 VDC
Rated current	50 - 100 A
Breaking Capacity	3000 A
Characteristic	Quick-Acting F
Mounting	PCB,SMT
Admissible Ambient Air Temp.	-55 °C to 125 °C
Material: Housing	Polyphthalamid
Material: Terminals	Ni/Sn-Plated Copper Alloy
Unit Weight	1.2 g
Storage Conditions	0 °C to 40 °C, max. 70% r.h.
Storage Capability	max. 1 year, at 25 °C in original packaging
Product Marking	S, Marking, gR, Lot Code

Soldering Methods	Reflow Soldering Profile
Solderability	JESD22-B102E, Method 1
Resistance to Soldering Heat	JEDEC J-STD-020
Solderability	245 °C / 3 sec acc. to IEC 60068-2-58
Resistance to Soldering Heat	260 +0/-5 °C / 30 sec acc. to IPC/JEDEC J-STD-020D, Level 1
Moisture Sensitivity Level	MIL-STD-202, Method 103
Flammability	UL 94V-1
Thermal Shock	JESD22 Method JA-104
Operational Life	MIL-STD-202, Method 108 Condition D
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
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: UHP

Approval Logo	Certificates	Certification Body	Description
c UL us	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

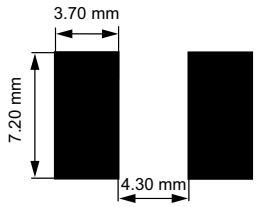
The product complies with following Guide Lines

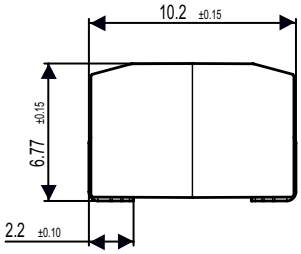
Identification	Details	Initiator	Description
CE	CE declaration of conformity	SCHURTER AG	The CE marking declares that the product complies with the applicable requirements laid down in the harmonisation of Community legislation on its affixing in accordance with EU Regulation 765/2008.
UKCA	UKCA declaration 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	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 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.
AEC Q200	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.

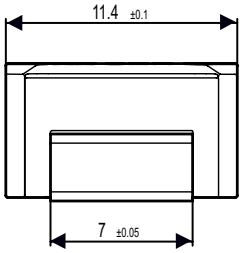
Dimension [mm]

11.4 mm

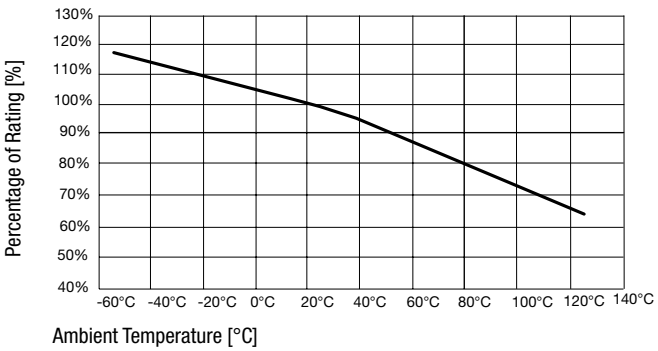
Soldering pads







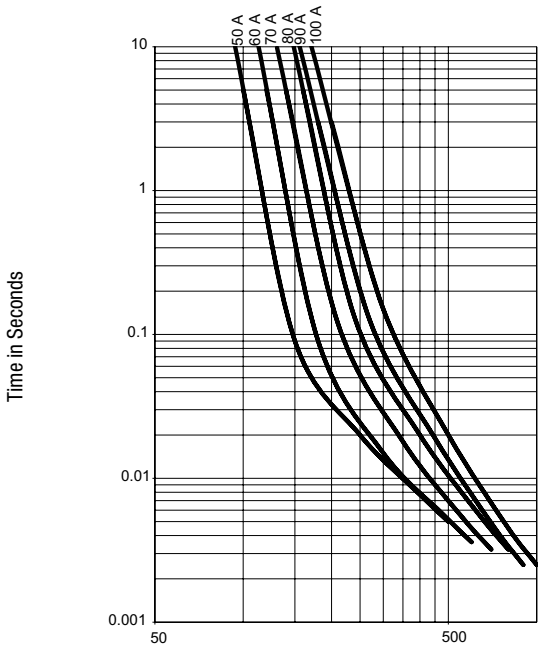
Derating Curves



Pre-Arcing Time

Rated Current In	1.0 x In min.	2.0 x In max.	10.0 x In min.	10.0 x In max.
50 A - 100 A	4 h	15 s	1 ms	10 ms

Time-Current-Curves



All Variants

Rated Current [A]	Rated Voltage [VDC]	Marking	Breaking Capacity	Voltage Drop 1.0 I_n typ. [mV]	Cold Resistance typ. [mΩ]	Melting I^2t 10.0 I_n typ. [A^2s]	Packaging unit [PCS]	Order Number	
50	80	UHP 50A	1)	90	1.44	1250	100	3-139-122	▮
50	80	UHP 50A	1)	90	1.44	1250	500	3-139-123	
60	80	UHP 60A	1)	90	1.18	1350	100	3-139-124	▮
60	80	UHP 60A	1)	90	1.18	1350	500	3-139-125	
70	80	UHP 70A	1)	95	1.01	1600	100	3-139-126	▮
70	80	UHP 70A	1)	95	1.01	1600	500	3-139-127	
80	80	UHP 80A	1)	97	0.89	2100	100	3-139-128	▮
80	80	UHP 80A	1)	97	0.89	2100	500	3-139-129	
90	80	UHP 90A	1)	105	0.81	2300	100	3-139-130	▮
90	80	UHP 90A	1)	105	0.81	2300	500	3-139-131	
100	80	UHP 100A	1)	110	0.74	2800	100	3-139-132	▮
100	80	UHP 100A	1)	110	0.74	2800	500	3-139-133	

▮ Most Popular.

Availability for all products can be searched real-time:https://www.schurter.com/en/Stock-Check/Stock-Check-SCHURTER

1) 2000 A @ 80 VDC, 3000 A @ 63 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

100 pcs. in tape [W: 24mm and P1: 16mm] in ESD plastic bag
500 pcs. in tape [W: 24mm and P1: 16mm] on reel [A: 33cm]

09.08.2023