Solid State, Thin Film, SMD 1206, Super-Quick-Acting FF, 125 VAC, 125 VDC, 150 °C



# UL 248-14 · 125 VAC · 125 VDC · Super-Quick-Acting FF

See below:

# **Approvals and Compliances**

#### **Description**

- Max. ambient temperature 150 °C
- Impermeable to potting compound used to achieve hermetic seal for use in intrinsically safe applications according to ATEx and IECEx reauirements.

### **Unique Selling Proposition**

- Hermetically sealed and robust construction
- High breaking capacity up to 300 A
- Smallest size

#### **Applications**

- Applications where high reliability and availability is needed
- Medical Equipment
- Offshore
- Defense

#### References

Alternative: Space version

#### Weblinks

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

## **Technical Data**

Rated Voltage	32 - 125VAC, 125VDC
Rated current	0.2 - 5A
Breaking Capacity	50A
Characteristic	Super-Quick-Acting FF
Mounting	PCB,SMT
Admissible Ambient Air Temp.	-55 °C to 150 °C
Climatic Category	55/150/21 acc. to IEC 60068-1
Material: Housing	Ceramics
Material: Terminals	Tin-Plated Nickel
Unit Weight	0.03 g
Storage Conditions	0°C to 60°C, max. 70% r.h.
Product Marking	none

Soldering Methods	Reflow, Wave
	Soldering Profile
Solderability	245°C / 3 sec acc. to IEC 60068-2-58,
	Test Td
Resistance to Soldering Heat	260 +0/-5°C / 30 sec acc. to IPC/JE-
	DEC J-STD-020D, Level 1
Moisture Sensitivity Level	MSL 1, J-STD-020
Flammability	min. UL 94V-1
	(acc. to EIA/IS-722, Test 4.12)
Moisture Resistance Test	MIL-STD-202, Method 106
	(50 cycles in a temp./mister chamber)
Thermal Shock	MIL-STD-202, Method 107D
	(200 air-to-air cycles from -55 to
	+125°C)
Operational Life	MIL-STD-202, Method 108
	1000h @ 0.60 x ln @ 70°C
Load Humidity Test	MIL-STD-202, Method 103
	0.1 x ln @ 0.85 r.H. @ 85°C
Resistance to Solvents	MIL-STD-202, Method 215
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: MGA

Approval Logo	Certificates	Certification Body	Description
c <b>SU</b> °us	UL Approvals	UL	UR File Number: E41599





## **Product standards**

Product standards that are referenced

Organization Design Standard Description

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Designed according to UL 248-14

Low voltage fuses - Part 14: Additional fuses

Low-Voltage Fuses - Part 14: Supplemental Fuses



Designed according to

CSA22.2 No. 248.14

## **Application standards**

Application standards where the product can be used

Organization Design Standard Description

**IEC** 

Designed 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
C€	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.
UK CA	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
<b>51)</b>	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.
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]

**─** 3.2 mm

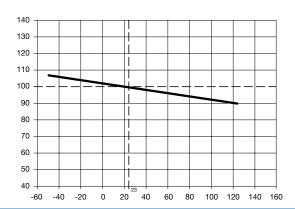
Reflow soldering pads







# **Derating Curves**

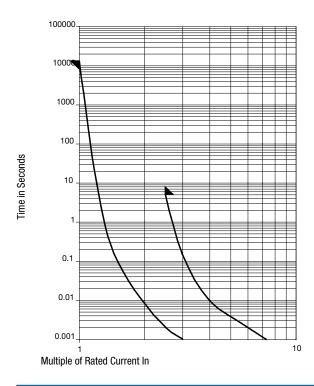




# **Pre-Arcing Time**

Rated Current In	1.0 x In min.	2.5 x In max.
0.2 A - 5 A	4 h	5 s

# **Time-Current-Curves**



# **All Variants**

Order Number	c <b>91</b> 2 us	Melting I <sup>2</sup> t 4.0 I <sub>n</sub> typ. [A <sup>2</sup> s]	Cold Resistance typ. [mΩ]	Voltage Drop 1.0 I <sub>n</sub> typ. [mV]	Breaking Capacity	Rated Vol- tage [VDC]	Rated Vol- tage [VAC]	Rated Cur- rent [A]
3410.0021.01	•	0.0008	1020	258	1)	125	125	0.2
3410.0021.02	•	0.0008	1020	258	1)	125	125	0.2
3410.0021.03	•	0.0008	1020	258	1)	125	125	0.2
3410.0021.04	•	0.0008	1020	258	1)	125	125	0.2
3410.0022.01	•	0.0009	800	250	1)	125	125	0.25
3410.0022.02	•	0.0009	800	250	1)	125	125	0.25
3410.0022.03	•	0.0009	800	250	1)	125	125	0.25
3410.0022.04	•	0.0009	800	250	1)	125	125	0.25
3410.0025.01	•	0.0037	361	165	1)	125	125	0.375
3410.0025.02	•	0.0037	361	165	1)	125	125	0.375
3410.0025.03	•	0.0037	361	165	1)	125	125	0.375
3410.0025.04	•	0.0037	361	165	1)	125	125	0.375
3410.0027.01	•	0.0042	247	150	1)	125	125	0.5
3410.0027.02	•	0.0042	247	150	1)	125	125	0.5
3410.0027.03	•	0.0042	247	150	1)	125	125	0.5
3410.0027.04	•	0.0042	247	150	1)	125	125	0.5
3410.0029.01	•	0.01	115	100	1)	125	125	0.75
3410.0029.02	•	0.01	115	100	1)	125	125	0.75
3410.0029.03	•	0.01	115	100	1)	125	125	0.75
3410.0029.04	•	0.01	115	100	1)	125	125	0.75
3410.0031.01	•	0.035	98.7	124	1)	125	125	1
3410.0031.02	•	0.035	98.7	124	1)	125	125	1
3410.0031.03	•	0.035	98.7	124	1)	125	125	1



Order Number	c <b>711</b> °us	Melting I <sup>2</sup> t 4.0 I <sub>n</sub> typ. [A <sup>2</sup> s]	Cold Resistance typ. [mΩ]	Voltage Drop 1.0 I <sub>n</sub> typ. [mV]	Breaking Capacity	Rated Vol- tage [VDC]	Rated Voltage [VAC]	Rated Cur- rent [A]
3410.0031.04	•	0.035	98.7	124	1)	125	125	1
3410.0033.01	•	0.064	56	105	1)	125	125	1.5
3410.0033.02	•	0.064	56	105	1)	125	125	1.5
3410.0033.03	•	0.064	56	105	1)	125	125	1.5
3410.0033.04	•	0.064	56	105	1)	125	125	1.5
3410.0035.01	•	0.089	39	98	1)	125	125	2
3410.0035.02	•	0.089	39	98	1)	125	125	2
3410.0035.03	•	0.089	39	98	1)	125	125	2
3410.0035.04	•	0.089	39	98	1)	125	125	2
3410.0036.01	•	0.15	29.5	90	1)	125	125	2.5
3410.0036.02	•	0.15	29.5	90	1)	125	125	2.5
3410.0036.03	•	0.15	29.5	90	1)	125	125	2.5
3410.0036.04	•	0.15	29.5	90	1)	125	125	2.5
3410.0037.01	•	0.18	24.1	88	1)	125	125	3
3410.0037.02	•	0.18	24.1	88	1)	125	125	3
3410.0037.03	•	0.18	24.1	88	1)	125	125	3
3410.0037.04	•	0.18	24.1	88	1)	125	125	3
3410.0240.01	•	0.23	17	83.5	2)	125	63	4
3410.0240.02	•	0.23	17	83.5	2)	125	63	4
3410.0240.03	•	0.23	17	83.5	2)	125	63	4
3410.0240.04	•	0.23	17	83.5	2)	125	63	4
3410.0141.01	•	0.45	13.5	90	3)	125	32	5
3410.0141.02	•	0.45	13.5	90	3)	125	32	5
3410.0141.03	•	0.45	13.5	90	3)	125	32	5
3410.0141.04	•	0.45	13.5	90	3)	125	32	5

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

1) 50 A @ 125 VAC / 300 A @ 125 VDC

2) 50 A @ 63 VAC / 50 A @ 125 VDC / 300 A @ 32 VDC

3) 50 A @ 32 VAC / 50 A @ 125 VDC / 300 A @ 32 VDC

Packaging Unit acc. IEC 60286-3 Type 2a	.xx = .01 .xx = .02 .xx = .03	100 pcs. in tape in ESD-plastic bag 750 pcs. in tape [W: 8mm and P1: 4mm] on reel [A: 18cm] 3000 pcs. in tape [W:8mm and P1: 4mm]on reel [A: 33cm]
	.xx = .04	10000 pcs. in tape [W: 8mm and P1: 4mm] on reel [A: 33cm]

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.