Surface Mount Fuse, 3.2 x 1.6 mm, Quick-Acting F, 32 VAC, 63 VDC



Exemplary part photo depending on part no.

IEC 60127-4 · 32 VAC · 63 VDC · Quick-Acting F

See below:
Approvals and Compliances

Description

- IEC characteristic
- High melting I^2t-values
- Impermeable to potting compound
- 1 A - 5 A testet according AEC-Q200 specifications

Applications

- Secondary Protection DC and AC
- Circuits with inrush

Weblinks

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

Technical Data

Rated Voltage	32 VAC, 63 VDC
Rated current	0.5 - 6.3 A
Breaking Capacity	63 A
Characteristic	Quick-Acting F
Mounting	PCB,SMT
Admissible Ambient Air Temp.	-55 °C to 90 °C
Climatic Category	55/090/21 acc. to IEC 60068-1
Material: Housing	Fiber-reinforced plastic
Material: Terminals	Copper, Ni/Au-plated
Unit Weight	0.006 g
Storage Conditions	0 °C to 60 °C, max. 70% r.h.
Product Marking	Letter (see variants)

Soldering Methods	Reflow, Wave (0.5 A variant only) Soldering Profile
Solderability	J-STD-002
Resistance to Soldering Heat	JEDEC J-STD-020
Solderability	250 °C / 3 sec acc. to IEC 60068-2-58, Test Td
Resistance to Soldering Heat	260 +0/-5 °C / 30 sec acc. to IPC/JEDEC J-STD-020D, Level 1
Flammability	UL 94V-1
Thermal Shock	MIL-STD-202, Method 107
Operational Life	MIL-STD-202, Method 108 Condition D
Load Humidity Test	MIL-STD-202, Method 103
Vibration, High Frequency	MIL-STD-202, Method 204 Condition D
Mechanical Shock	MIL-STD-202, Method 213 Condition F
Resistance to Solvents	MIL-STD-202, Method 215
Flame Retardance	AEC-Q200-001
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: USI 1206

Approval Logo	Certificates	Certification Body	Description
	VDE Approvals	VDE	VDE Certificate Number: 40046290
	UL Approvals	UL	UR File Number: E41599

Product standards

Product standards that are referenced

Organization	Design	Standard	Description
IEC	Designed according to	IEC 60127-4/2	Miniature fuses. Part 4. Universal modular fuse-links for through-hole and surface mount types
UL	Designed according to	UL 248-14	Low voltage fuses - Part 14: Additional fuses
CSA Group	Designed according to	CSA22.2 No. 248.14	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

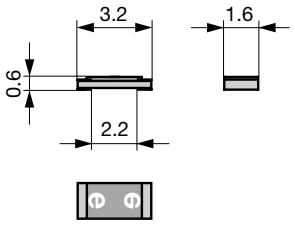
Compliances

The product complies with following Guide Lines

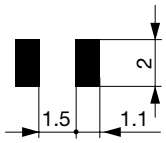
Identification	Details	Initiator	Description
CE	CE declaration of conformity	SCHURTER AG	The CE marking declares that the product complies with the applicable requirements laid down in the harmonisation of Community legislation on its affixing in accordance with EU Regulation 765/2008.
UKCA	UKCA declaration 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
	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.
		SCHURTER AG	Universal Modular Fuse meets the standard IEC 60127-4
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]

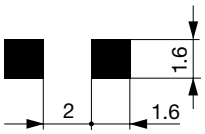
3.2 mm



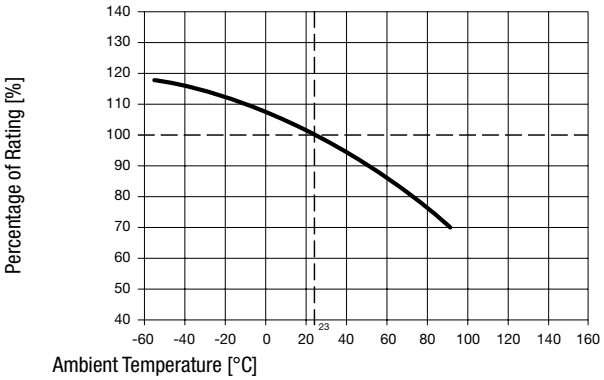
Reflow soldering pads



Wave soldering pads



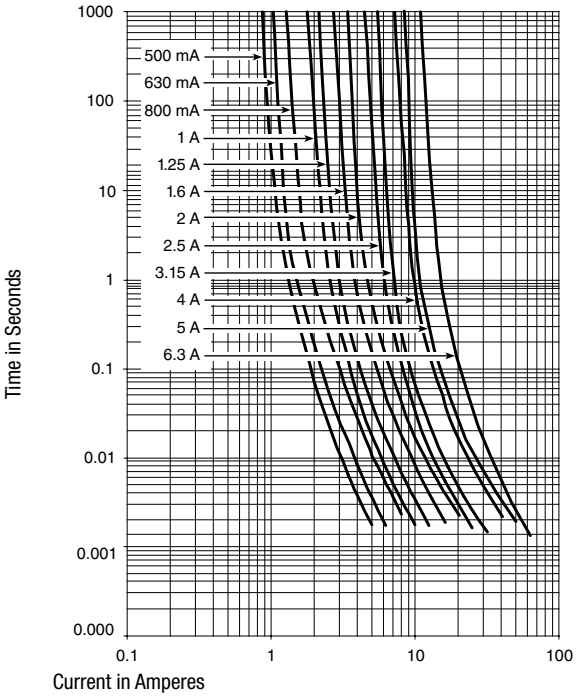
Derating Curves



Pre-Arcing Time

Rated Current In	1.25 x In min	2.0 x In max	10.0 x In min	10.0 x In max
0.5 A - 6.3 A	60 min	120 s	1 ms	10 ms

Time-Current-Curves



All Variants

Rated Current [A]	Rated Voltage [VAC]	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]			Order Number
0.5	32	63	e	1)	230	400	0.045	●	●	3413.0213.11
0.5	32	63	e	1)	230	400	0.045	●	●	3413.0213.22
0.5	32	63	e	1)	230	400	0.045	●	●	3413.0213.24
0.5	32	63	e	1)	230	400	0.045	●	●	3413.0213.26
0.63	32	63	f	1)	230	300	0.067	●	●	3413.0214.11
0.63	32	63	f	1)	230	300	0.067	●	●	3413.0214.22
0.63	32	63	f	1)	230	300	0.067	●	●	3413.0214.24
0.63	32	63	f	1)	230	300	0.067	●	●	3413.0214.26
0.8	32	63	g	1)	180	200	0.15	●	●	3413.0215.11
0.8	32	63	g	1)	180	200	0.15	●	●	3413.0215.22
0.8	32	63	g	1)	180	200	0.15	●	●	3413.0215.24
0.8	32	63	g	1)	180	200	0.15	●	●	3413.0215.26
1	32	63	h	1)	100	85	0.17	●	●	3413.0216.11
1	32	63	h	1)	100	85	0.17	●	●	3413.0216.22
1	32	63	h	1)	100	85	0.17	●	●	3413.0216.24
1	32	63	h	1)	100	85	0.17	●	●	3413.0216.26
1.25	32	63	i	1)	100	65	0.28	●	●	3413.0217.11
1.25	32	63	i	1)	100	65	0.28	●	●	3413.0217.22
1.25	32	63	i	1)	100	65	0.28	●	●	3413.0217.24
1.25	32	63	i	1)	100	65	0.28	●	●	3413.0217.26
1.6	32	63	k	1)	90	50	0.49	●	●	3413.0218.11
1.6	32	63	k	1)	90	50	0.49	●	●	3413.0218.22
1.6	32	63	k	1)	90	50	0.49	●	●	3413.0218.24
1.6	32	63	k	1)	90	50	0.49	●	●	3413.0218.26
2	32	63	m	1)	90	37.5	0.9	●	●	3413.0219.11
2	32	63	m	1)	90	37.5	0.9	●	●	3413.0219.22
2	32	63	m	1)	90	37.5	0.9	●	●	3413.0219.24
2	32	63	m	1)	90	37.5	0.9	●	●	3413.0219.26

Rated Current [A]	Rated Voltage [VAC]	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]	VDE	cULus	Order Number	
2.5	32	63	n	1)	65	22.5	1.02	●	●	3413.0220.11	▮
2.5	32	63	n	1)	65	22.5	1.02	●	●	3413.0220.22	▮
2.5	32	63	n	1)	65	22.5	1.02	●	●	3413.0220.24	
2.5	32	63	n	1)	65	22.5	1.02	●	●	3413.0220.26	
3.15	32	63	p	1)	65	18	1.46	●	●	3413.0221.11	▮
3.15	32	63	p	1)	65	18	1.46	●	●	3413.0221.22	▮
3.15	32	63	p	1)	65	18	1.46	●	●	3413.0221.24	
3.15	32	63	p	1)	65	18	1.46	●	●	3413.0221.26	
4	32	63	r	1)	65	12.5	3.52	●	●	3413.0222.11	▮
4	32	63	r	1)	65	12.5	3.52	●	●	3413.0222.22	▮
4	32	63	r	1)	65	12.5	3.52	●	●	3413.0222.24	
4	32	63	r	1)	65	12.5	3.52	●	●	3413.0222.26	
5	32	63	s	1)	65	11.8	4.75	●	●	3413.0223.11	▮
5	32	63	s	1)	65	11.8	4.75	●	●	3413.0223.22	▮
5	32	63	s	1)	65	11.8	4.75	●	●	3413.0223.24	
5	32	63	s	1)	65	11.8	4.75	●	●	3413.0223.26	
6.3	32	63	t	1)	60	8.1	5.42	●	●	3413.0224.11	▮
6.3	32	63	t	1)	60	8.1	5.42	●	●	3413.0224.22	▮
6.3	32	63	t	1)	60	8.1	5.42	●	●	3413.0224.24	
6.3	32	63	t	1)	60	8.1	5.42	●	●	3413.0224.26	

▮ Most Popular.

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

1) UL: 63 A @ 32 VAC, 63 A @ 63 VDC

1) IEC: 63 A @ 32 VAC, 63 A @ 63 VDC

1) Additional internal testing: 150 A @ 24 VAC/DC, 400 A @ 12 VDC, 600 A @ 9 VDC

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: 8mm and P1: 4mm] on reel [A: 18cm]
.xx = .24	5000 pcs. in tape [W: 8mm and P1: 4mm] on reel [A: 33cm]
.xx = .26	15000 pcs. in tape [W: 8mm and P1: 4mm] on reel [A: 33cm]

15.09.2022

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.