Surface Mount Fuse, 3 x 10.1 mm, Quick-Acting F, 250 VAC, 125 VDC

new

250 VAC · 125 VDC · Quick-Acting F

See below:
Approvals and Compliances

Description
- Designed for use with fuseholder FRM-A
- Directly solderable on printed circuit boards
- Impermeable to potting compound used to achieve hermetic seal for use in intrinsically safe applications according to ATEx and IECEx requirements.

Unique Selling Proposition
- Defined interruption at 1.7 x rated current
- Low melting I²t-values
- Verified High Altitude Capability
- Qualified for high altitude operation

Applications
- Avionics
- Ground Equipment

References
Corresponding Fuseholder FRM-A

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

Technical Data

Rated Voltage	250 VAC, 125 VDC
Rated current	0.5 - 8 A
Breaking Capacity	100 A - 200 A
Characteristic	Quick-Acting F
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	Copper alloy, gold-plated nickel
Unit Weight	0.3 g
Storage Conditions	0 °C to 40 °C, max. 70% r.h.
Product Marking	, DRM-A, Rated current, Characteristic, Rated Voltage

Soldering Methods	Reflow, Wave 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, Test Td
Resistance to Soldering Heat	260 °C / 10 sec acc. to IEC 60068-2-58, Test Td
Moisture Sensitivity Level	MSL 1, J-STD-020
Damp heat, steady state	IEC 60068-2-78
Moisture Sensitivity Level	MIL-STD-202, Method 106 (acc. to EIA/IS-722, Test 4.4.3)
Operational Life	MIL-STD-202, Method 108 Condition F 2000h @ 0.60 x In @ 125°C
Vibration, High Frequency	IEC 60068-2-6
Mechanical Shock	IEC 60068-2-27
High Temperature Exposure	IEC 60068-2-14
Resistance to Solvents	MIL-STD-202, Method 215

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: DRM-A

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

Product standards

Product standards that are referenced

Organization	Design	Standard	Description
UL	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
IEC	Suitable for applications acc.	IEC/UL 62368-1	Audio/video, information and communication technology equipment - Part 1: Safety requirements

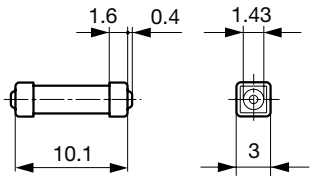
Compliances

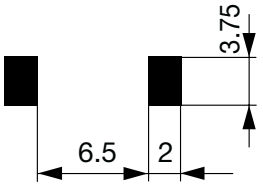
The product complies with following Guide Lines

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	RoHS	SCHURTER AG	Directive RoHS 2011/65/EU, Amendment (EU) 2015/863
50	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.

Dimension [mm]

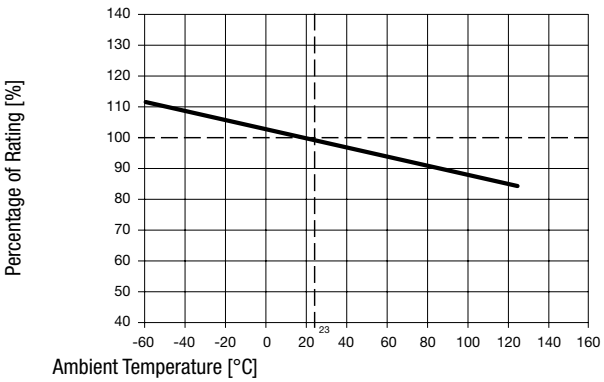
10.1 mm





Soldering pads

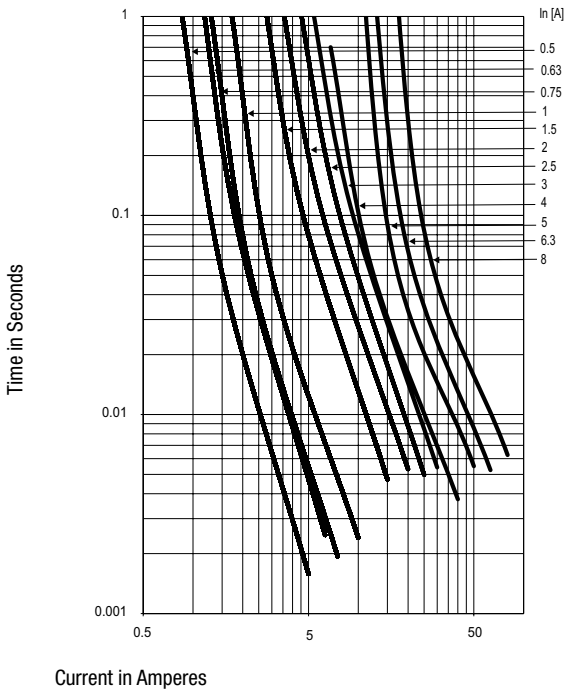
Derating Curves



Pre-Arcing Time

Rated Current In	1.0 x In min.	1.1 x In min.	1.7 x In min.	1.7 x In max.	3.0 x In min.	3.0 x In max.	10.0 x In min.	10.0 x In max.
0.5 A - 8 A	4 h	60 min	300 ms	60 min	35 ms	300 ms	1 ms	10 ms

Time-Current-Curves



Variants

Rated Current [A]	Rated Voltage [VAC]	Rated Voltage [VDC]	Breaking Capacity	Voltage Drop 1.0 I_n typ. [mV]	Power Dissipation 1.1 I_n typ. [mW]	Melting I^2t 10.0 I_n typ. [A^2s]	Packaging unit	Order Number
0.5	250	125	1)	830	503	0.04	100	3-133-762
0.5	250	125	1)	830	503	0.04	2000	3-133-763
0.63	250	125	1)	580	468	0.1	100	3-133-757
0.63	250	125	1)	580	468	0.1	2000	3-133-758
0.75	250	125	1)	500	494	0.11	100	3-133-755
0.75	250	125	1)	500	494	0.11	2000	3-133-756
1	250	125	1)	380	517	0.24	100	3-133-753
1	250	125	1)	380	517	0.24	2000	3-133-754
1.5	250	125	2)	290	576	1.1	100	3-133-751
1.5	250	125	2)	290	576	1.1	2000	3-133-752
2	250	125	2)	280	740	2.1	100	3-133-749
2	250	125	2)	280	740	2.1	2000	3-133-750
2.5	250	125	2)	275	941	3.1	100	3-133-747
2.5	250	125	2)	275	941	3.1	2000	3-133-748
3	250	125	2)	240	1067	4.9	100	3-133-745
3	250	125	2)	240	1067	4.9	2000	3-133-746
4	250	125	2)	135	726	6	100	3-133-743
4	250	125	2)	135	726	6	2000	3-133-744
5	250	125	2)	100	672	13.8	100	3-133-731
5	250	125	2)	100	672	13.8	2000	3-133-742
6.3	250	125	2)	105	903	20.9	100	3-133-729
6.3	250	125	2)	105	903	20.9	2000	3-133-730

Rated Current [A]	Rated Voltage [VAC]	Rated Voltage [VDC]	Breaking Capacity	Voltage Drop 1.0 I_n typ. [mV]	Power Dissipation 1.1 I_n typ. [mW]	Melting I^2t 10.0 I_n typ. [A^2s]	Packaging unit	Order Number
8	250	125	2)	93	978	40.1	100	3-133-472
8	250	125	2)	93	978	40.1	2000	3-133-471

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

1) UL: 100 A @ 250 VAC, cos φ >= 0.99; 100 A @ 125 VDC, tau < 0.5 ms

1) Internal tests at 65'000 ft: 200 A @ 125 VAC, cos φ >= 0.99; 200 A @ 125 VDC, tau < 0.5 ms

2) UL: 100 A @ 250 VAC, cos φ >= 0.99; 100 A @ 125 VDC, tau < 0.5 ms

2) Internal tests at 65'000 ft: 100 A @ 125 VAC, cos φ >= 0.99; 100 A @ 125 VDC, tau < 0.5 m

Packaging Unit
acc. IEC 60286-3 Type 2a

100 pcs in ESD-plastic bag
2000 pcs. in tape [W: 24mm and P1: 8mm] on reel [A: 33cm]

14.04.2025