Solid State, Thin Film, SMD 3220 Fuse for High Current Application

IEC 60127-7 · 125 VAC · 125 VDC · Quick-Acting F

See below:
Approvals and Compliances

Description
- IEC Approved
- For high current applications
- Max. ambient temperature 125 °C
- Impermeable to potting compound used to achieve hermetic seal for use in intrinsically safe applications according to ATEx and IECEx requirements.

Unique Selling Proposition
- Sealed and robust construction
- High breaking capacity up to 1000 A
- Smallest size

Applications
- Applications where high reliability and availability is required
- Avionics
- 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	125 VAC, 125 VDC
Rated current	5 - 15 A
Breaking Capacity	200 A - 1000 A
Characteristic	Quick-Acting F
Mounting	PCB,SMT
Admissible Ambient Temp.	-50 °C to 125 °C
Climatic Category	55/125/56 acc. to IEC 60068-1
Material: Housing	Ceramic
Material: Terminals	Copper alloy, tin-plated
Unit Weight	0.8 g
Storage Conditions	0 °C to 60 °C, max. 70% r.h.
Product Marking	Variant Code, Certification marks

Soldering Methods	Reflow, Wave Soldering Profile
Solderability	245 °C / 3 sec acc. to IEC 60068-2-58
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 (40°C, 93% RH, 56 days)
Thermal Shock	IEC 60068-2-14 (200 air-to-air cycles from -55 to +150°C)
Operational Time	MIL-STD-202, Method 108 Condition F 2000h @ 0.8 x In @ 125°C
Vibration, High Frequency	IEC 60068-2-6 Shock 20 g, 20 min, 10-2000 Hz, 12 cyc.
Mechanical Shock	IEC 60068-2-27 Test Ea (18 shocks, 100 g, 6 ms)
Board Flex	EIA/IS-722, Test 4.5.5

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: HCF

Approval Logo	Certificates	Certification Body	Description
	VDE Approvals	VDE	VDE Certificate Number: 40046597
	UL Approvals	UL	UR File Number: E41599

Product standards

Product standards that are referenced

Organization	Design	Standard	Description
IEC	Designed according to	IEC 60127-7	Miniature fuses - Part 7: Miniature fuse-links for special applications
UL	Designed according to	UL 248-14	Low voltage fuses - Part 14: Supplemental 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

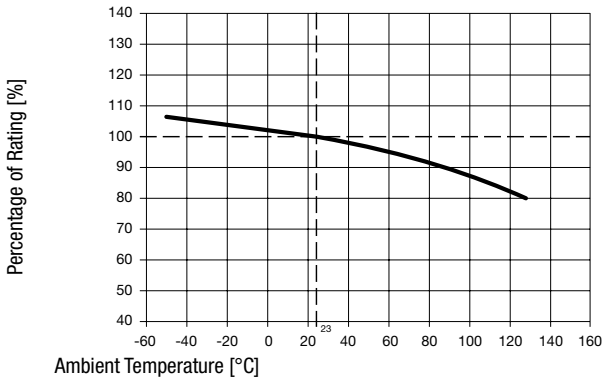
Compliances

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	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]

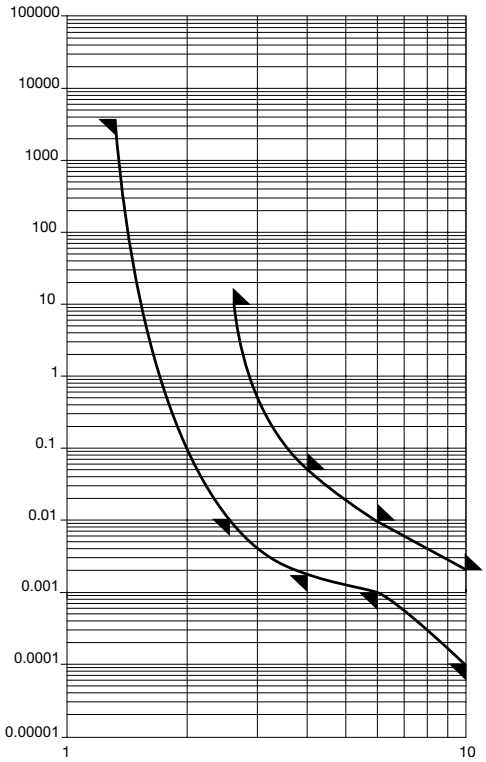
Derating Curves



Pre-Arcing Time

Rated Current In	1.25 x In min.	2.5 x In min.	2.5 x In max.	4.0 x In min.	4.0 x In max.	6.0 x In min.	6.0 x In max.	10.0 x In min.	10.0 x In max.
5 A - 15 A	> 1 h	10 ms	10 s	2 ms	50 ms	1 ms	10 ms	0.1 ms	2 ms

Time-Current-Curves



Variants

Rated Current [A]	Rated Voltage [VAC]	Rated Voltage [VDC]	Breaking Capacity	Voltage Drop 1.0 I_n typ. [mV]	Cold Resistance typ. [mΩ]	Melting I²t 10.0 I_n typ. [A²s]	VDE	cULus	Order Number
5	125	125	1)	90	14.2	1.75	●	●	3-101-056
7.5	125	125	1)	90	9.5	5.6	●	●	3-101-050
10	125	125	1)	105	8.2	11	●	●	3-101-051
15	125	125	2)	86	4.3	28		●	3-101-062

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

1) 200 A @ 125 VAC, p.f. > 0.999 / 1000 A @ 125 VDC, L/R < 1 ms

Rated Current [A]	Rated Voltage [VAC]	Rated Voltage [VDC]	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

2) 200 A @ 125 VAC, p.f. > 0.999 / 500 A @ 125 VDC, L/R < 1 ms

Packaging Unit
acc. IEC 60286-3 Type 2a

100 pcs. in Blister Tape [W: 16mm and P1: 8mm] on Reel [A: 18cm] in ESD Plastic Bag

21.07.2026

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.