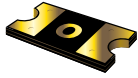




**THE DATASHEET OF
PFNF.050.2**



Surface Mount Fuse, PTC, 1206 footprint, 3.2 x 1.6 mm, 30 VDC



6.0 - 30.0VDC · 0.12 - 2A

See below:

[Approvals and Compliances](#)

Description

- Directly solderable on printed circuit boards

Applications

- USB port protection
- PC motherboards
- PDA's / Digital Cameras
- Game console port protection

Weblinks

[pdf data sheet](#), [html datasheet](#), [General Product Information](#), [Distributor-Stock-Check](#), [Detailed request for product](#)

Technical Data

V max	6.0 - 30.0VDC
I _{max}	10 - 100A
I hold	0.12 - 2A
Attachment	PCB,SMT
Allowable Operation Temperature	-40 °C to 85 °C
Material: Terminals	Electroless Nickel under Immerion Gold
Weight	0.011 g
Storage Conditions	0 °C to 40 °C, max. 70% r.h.
Product Marking	I hold

Soldering Methods	Reflow Soldering Profile
Solderability	245 °C / 3 sec
Resistance to Soldering Heat	260 °C / 10 sec
Moisture Sensitivity Level	MSL 1, J-STD-020
Passing Aging	+85 °C, 1000 Hours -> +/- 5% Typical Resistance Change
Humidity Aging	+85 °C, 85% r.h., 1000 Hours -> +/- 5% Typical Resistance Change
Thermal Shock	+85 °C to -40 °C, 20 Times -> +/- 10% Typical Resistance Change
Vibration	MIL-STD-883C, Method 2007.1, Test Condition A
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: PFNF

Approval Logo	Certificates	Certification Body	Description
	TUEV Approvals	TUEV	Technischer Überwachungsverein
	UL Approvals	UL	UR File Number: E172175

Product standards

Product standards that are referenced

Organization	Design	Standard	Description
	Designed according to	62319-1-1	Polymeric thermistors. Part 1-1: Current limiting application
	Designed according to	IEC 62319-1-1	Miniature fuses. Part 2. Cartridge fuse links
	Designed according to	UL 1434	Thermistor-type devices
	Designed according to	CSA 22.2 No. 0 TIL No. CA-3A	General requirements - Canadian electrical code, part II






Application standards

Application standards where the product can be used


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

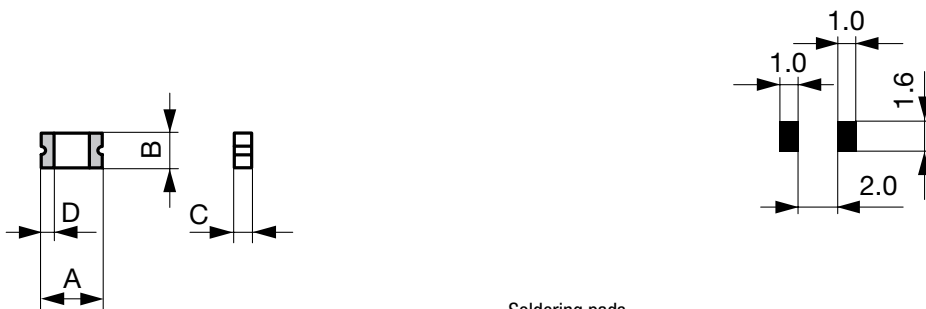
Compliances

The product complies with following Guide Lines

Identification	Details	Initiator	Description
	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 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	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.
	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.

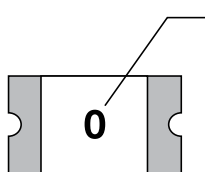
Dimension [mm]

 3.2 mm



Soldering pads

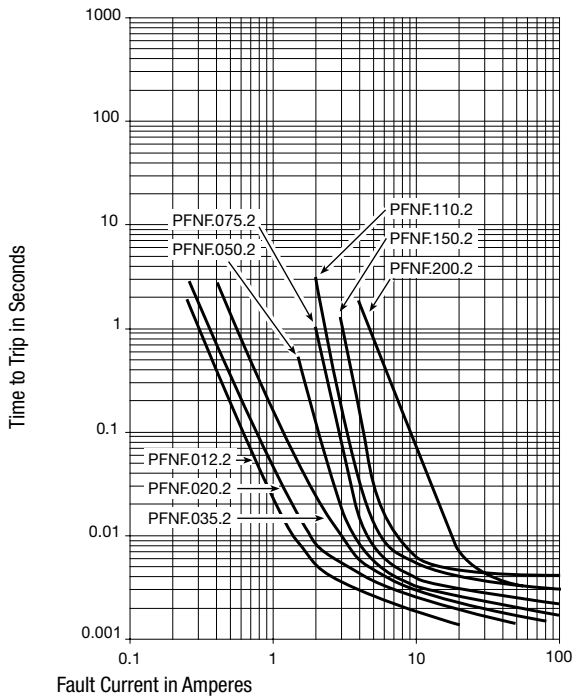
Part marking



Part Identification:

- PFNF.012 = 0
- PFNF.020 = 2
- PFNF.035 = 3
- PFNF.050 = 4
- PFNF.075 = 5
- PFNF.110 = 6
- PFNF.150 = 8
- PFNF.200 = A

Time-Current-Curves



Dimensions

A min [mm]	A max [mm]	B min [mm]	B max [mm]	C min [mm]	C max [mm]	D min [mm]	Order Number
3	3.4	1.4	1.8	0.7	1.1	0.25	PFNF.012.2
3	3.4	1.4	1.8	0.48	0.85	0.25	PFNF.020.2
3	3.4	1.4	1.8	0.48	0.85	0.25	PFNF.035.2
3	3.4	1.4	1.8	0.48	0.85	0.25	PFNF.050.2
3	3.4	1.4	1.8	0.4	0.7	0.25	PFNF.075.2
3	3.4	1.4	1.8	0.4	0.7	0.25	PFNF.110.2
3	3.4	1.4	1.8	0.4	0.7	0.25	PFNF.150.2
3	3.4	1.4	1.8	0.7	1.1	0.25	PFNF.200.2

Most Popular.

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

Thermal Derating Chart Ihold [A]

Order Number	-40 °C	-20 °C	0 °C	23 °C	40 °C	50 °C	60 °C	70 °C	85 °C	Order Number
PFNF.012.2	0.19	0.17	0.15	0.12	0.11	0.1	0.09	0.08	0.07	PFNF.012.2
PFNF.020.2	0.3	0.27	0.24	0.2	0.18	0.16	0.14	0.12	0.11	PFNF.020.2
PFNF.035.2	0.51	0.46	0.4	0.35	0.3	0.27	0.24	0.22	0.18	PFNF.035.2
PFNF.050.2	0.76	0.68	0.59	0.5	0.44	0.4	0.35	0.32	0.26	PFNF.050.2
PFNF.075.2	1.11	1	0.85	0.75	0.67	0.61	0.52	0.5	0.42	PFNF.075.2
PFNF.110.2	1.64	1.46	1.3	1.1	0.92	0.83	0.8	0.65	0.52	PFNF.110.2
PFNF.150.2	2.2	1.99	1.77	1.5	1.34	1.23	1.1	1.01	0.84	PFNF.150.2
PFNF.200.2	2.88	2.61	2.28	2	1.8	1.66	1.51	1.39	1.19	PFNF.200.2

Most Popular.

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

Electrical Characteristics at 23 °C

V max [VDC]	I max [A]	I hold [A]	I trip [A]	R initial min [Ω]	R 1hour max [Ω]	Max Time to trip [A]	Max Time to Trip [s]	Tripped Power Dissipation [W]	Order Number
30.0	10	0.12	0.29	1.35	8.5	1	0.2	0.40	PFNF.012.2
24.0	10	0.2	0.46	0.6	2.6	1	0.6	0.60	PFNF.020.2
6.0	100	0.35	0.75	0.3	1.2	8	0.1	0.60	PFNF.035.2
13.2	100	0.5	1	0.15	0.7	8	0.1	0.40	PFNF.050.2
6.0	100	0.75	1.5	0.1	0.4	8	0.1	0.40	PFNF.075.2
6.0	100	1.1	2.2	0.06	0.2	8	0.3	0.60	PFNF.110.2
6.0	100	1.5	3	0.03	0.13	8	1	0.60	PFNF.150.2
6.0	100	2	4	0.02	0.085	8	1	0.70	PFNF.200.2

■ Most Popular.

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



Packaging Unit

3000 pcs. in tape [W: 8mm and P1: 4mm] on reel [A: 18cm]

acc. IEC 60286-3 Type 2a

Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

-  [View PFNF.050.2 on WIN SOURCE](#)
-  [Schurter Inc. Information](#)

Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management