

PFNF



1206 footprint · 6.0 - 30.0 VDC · 0.12 - 1.5 A



**Approvals**  
- UL File Number: E172175

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

**References**  
[General Product Information](#)  
Time-Current Curves see last page  
[Packaging Details](#)

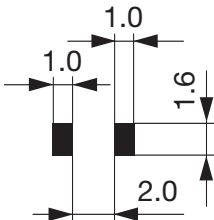
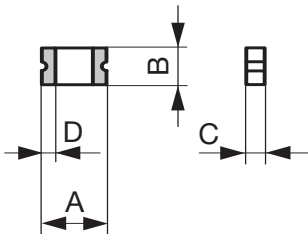
**Weblinks**  
Approvals: <http://www.schurter.com/approvals>  
RoHS: <http://www.schurter.com/rohs>

Technical Data

|                           |                                        |
|---------------------------|----------------------------------------|
| V max [VDC]               | 6.0 - 30.0 VDC                         |
| I max [A]                 | 10 - 100 A                             |
| I hold [A]                | 0.12 - 1.5 A                           |
| Fastening                 | PCB,SMT                                |
| Allowable operation temp. | -40 °C to 85 °C                        |
| Material: Terminals       | Electroless Nickel under Immerion Gold |
| Weight                    | 0.006 g                                |
| Stock Conditions          | 0 °C to 40 °C, max. 70% r.h.           |

|                              |                                                                  |
|------------------------------|------------------------------------------------------------------|
| Soldering Methods            | Reflow                                                           |
| Solderability                | 245 °C / 3 sec                                                   |
| Resistance to Soldering Heat | 260 °C / 10 sec                                                  |
| 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, Methode 215                                         |

**Dimensions**      Length  3.2 mm



Solder pads

## PFNF

### Dimensions

| Order Number | A min<br>[mm] | A max<br>[mm] | B min<br>[mm] | B max<br>[mm] | C min<br>[mm] | C max<br>[mm] | D min<br>[mm] |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| PFNF.012.2   | 3             | 3.4           | 1.4           | 1.8           | 0.7           | 1.1           | 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           | 0.48          | 0.85          | 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           | 0.4           | 0.7           | 0.25          |

### Thermal Derating Chart I<sub>hold</sub> / I<sub>trip</sub> [A]

| Order Number | -40 °C | -20 °C | 0 °C | 23 °C       | 40 °C | 50 °C | 60 °C | 70 °C | 85 °C |
|--------------|--------|--------|------|-------------|-------|-------|-------|-------|-------|
| PFNF.012.2   | 0.19   | 0.17   | 0.15 | 0.12 / 0.29 | 0.11  | 0.1   | 0.09  | 0.08  | 0.07  |
| PFNF.020.2   | 0.3    | 0.27   | 0.24 | 0.2 / 0.46  | 0.18  | 0.16  | 0.14  | 0.12  | 0.11  |
| PFNF.035.2   | 0.51   | 0.46   | 0.4  | 0.35 / 0.75 | 0.3   | 0.27  | 0.24  | 0.22  | 0.18  |
| PFNF.050.2   | 0.76   | 0.68   | 0.59 | 0.5 / 1     | 0.44  | 0.4   | 0.35  | 0.32  | 0.26  |
| PFNF.075.2   | 1.11   | 1      | 0.85 | 0.75 / 1.5  | 0.67  | 0.61  | 0.52  | 0.5   | 0.42  |
| PFNF.110.2   | 1.64   | 1.46   | 1.3  | 1.1 / 1.8   | 0.92  | 0.83  | 0.8   | 0.65  | 0.52  |
| PFNF.150.2   | 2.2    | 1.99   | 1.77 | 1.5 / 3     | 1.34  | 1.23  | 1.1   | 1.01  | 0.84  |

### Electrical Characteristics

| Order Number | V max [VDC] | I max [A] | I hold [A] | I trip [A] | R initial min<br>[mΩ] | R 1 hour max<br>[Ω] | Max Time to<br>trip [A] | Max Time to<br>Trip [s] | Tripped Power<br>Dissipation [W] |
|--------------|-------------|-----------|------------|------------|-----------------------|---------------------|-------------------------|-------------------------|----------------------------------|
| PFNF.012.2   | 30.0        | 10        | 0.12       | 0.29       | 1.35                  | 6                   | 1                       | 0.2                     | 0.40                             |
| PFNF.020.2   | 24.0        | 10        | 0.2        | 0.46       | 0.6                   | 2.6                 | 1                       | 0.6                     | 0.60                             |
| PFNF.035.2   | 6.0         | 100       | 0.35       | 0.75       | 0.3                   | 1.2                 | 8                       | 0.1                     | 0.60                             |
| PFNF.050.2   | 13.2        | 100       | 0.5        | 1          | 0.15                  | 0.7                 | 8                       | 0.1                     | 0.40                             |
| PFNF.075.2   | 6.0         | 100       | 0.75       | 1.5        | 0.1                   | 0.4                 | 8                       | 0.1                     | 0.40                             |
| PFNF.110.2   | 6.0         | 100       | 1.1        | 1.8        | 0.06                  | 0.2                 | 8                       | 0.1                     | 0.60                             |
| PFNF.150.2   | 6.0         | 100       | 1.5        | 3          | 0.03                  | 0.13                | 8                       | 0.3                     | 0.60                             |

### Packaging Unit

Blister Tape 18 cm Reel (3000 pcs.)

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