

SMD thermal fuse for high currents



60VDC · up to 100A · 210 °C · PCB, SMT

See below:

[Approvals and Compliances](#)

### Description

- Patented surface mount thermal fuse to protect against thermal runaway of power semiconductors such as: MOSFET's, IC's, IGBT's, Triac's, SCR's, etc.
- Provides physical protection in cases where all software-based security measures have failed

### Unique Selling Proposition

- Separates rated voltages up to 60VDC
- Reflow compatible through mechanical activation procedure
- Galvanic separation happens inside the RTS housing
- Smallest footprint with just two contacts

### Applications

- Wherever power transistors are used
- Automotive: Cooling fan applications, ABS power steering, PTC heaters, HVAC, Glow plugs, Diesel fuel heaters
- Industrial: Battery Protection, Power supplies, Lighting ballasts, H-Bridge circuits, Motor drivers

### Other versions on request

- Thermal fuse with integrated shunt
- Thermal fuse with integrated fuse

### Weblinks

[pdf datasheet](#), [html-datasheet](#), [General Product Information](#), [Packaging details](#), [Distributor-Stock-Check](#), [Detailed request for product](#), [Landing Page](#)

### Technical Data

Rated Voltage	60VDC
Breaking Capacity	400A
Operating current	up to 100A
Mounting	PCB, SMT
Allowable Operation Temperature	-40 °C to +150 °C
Tripping temperature	210 °C
Material: Housing	Plastics
Material: Terminals	Tin-Plated Copper Alloy
Unit Weight	0.75 g
Storage Conditions	0 °C to 40 °C, max. 70% r.h.
Product Marking	Variant Code, Lot no.

Maximum reflow temperature	260 °C (peak)
Soldering Methods	Reflow <a href="#">Soldering Profile</a>
Solderability	245 °C / 3 sec acc. to IEC 60068-2-58
Resistance to Soldering Heat	260 °C / 30 sec acc. to IPC/JEDEC J-STD-020D, Level 1
Activation force	Fa = max. 50 N
Activation distance	Sa = 1.1 ± 0.1 mm

### Approvals and Compliances

Detailed information on product approvals, code requirements, usage instructions and detailed test conditions can be looked up in [Details about Approvals](#)




### Application standards

Application standards where the product can be used

Organization	Design	Standard	Description
	Designed for applications acc.	IEC/UL 60950	IEC 60950-1 includes the basic requirements for the safety of information technology equipment.

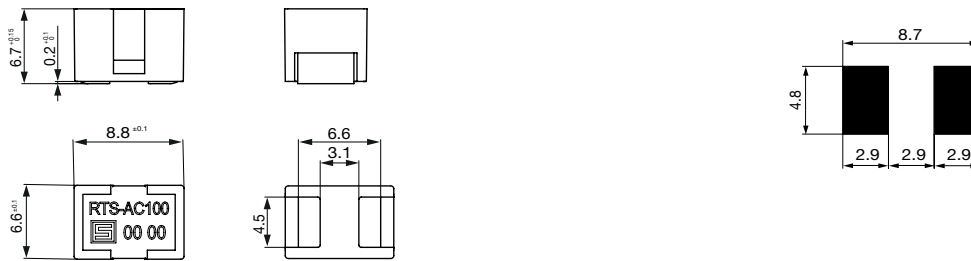
**Compliances**

The product complies with following Guide Lines

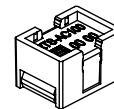
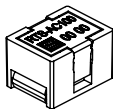
Identification	Details	Initiator	Description
	RoHS	SCHURTER AG	EU Directive RoHS 2011/65/EU
	REACH	SCHURTER AG	On 1 June 2007, Regulation (EC) No 1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals 1 (abbreviated as "REACH") entered into force.
	Automotive	SCHURTER AG	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]**

Reflow soldering pads



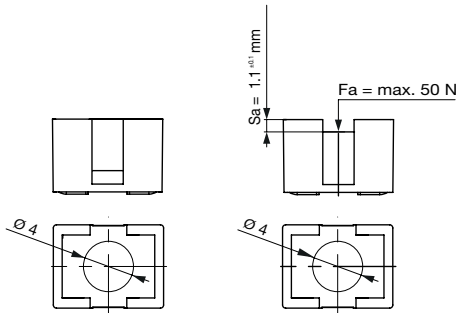
Activation status



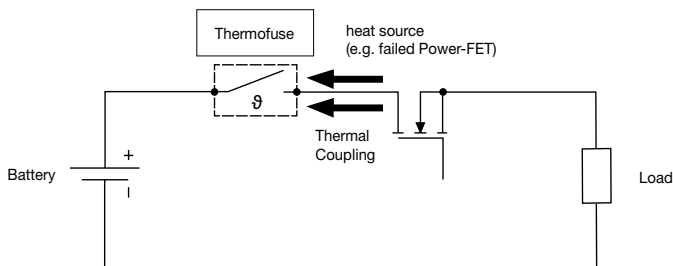
Deactivated

Activated: must be mechanically activated after reflow

Activation specification



Schaltbilder



All Variants

Cold Resistance typ. (max.)	Packaging unit [PCS]	Order Number
95 $\mu\Omega$ (120 $\mu\Omega$ )	100	3-104-513
95 $\mu\Omega$ (120 $\mu\Omega$ )	750	3-104-514

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

Nominal Current: < 100 A

Nominal Current depends on the implementation on the board (Cu area/ thickness)

Breaking Capacity: 400 A @ 24 VDC (> 18  $\mu$ H) / 200 A @ 50 VDC (> 27  $\mu$ H) / 170 A @ 60 VDC (> 32  $\mu$ H)

All measurements carried out on a board based on IEC 60127-4 with 20 mm track width and 70  $\mu$ m copper layer thickness

**Packaging Unit** Blister Tape 33 cm Reel in ESD Plastic Bag