

Pulse transformers for THT mounting



ITNB

See below:

Approvals and Compliances

Description

- High insulation rating (>3.2 kVAC) between the primary and the secondary windings
- High insulation rating up to 500V between the secondary windings
- Small coupling capacitances between primary and secondary windings limit transient feedback from the power supply side to the control electronics
- The defined partial discharge voltage guarantees an effectively unlimited serviceable life

Applications

- Galvanic separation of drive- and power-circuit
- Mainly used in ignition circuits with Thyristors, Triacs, power transistors and IGBT's
- DC/DC converters
- Line coupling transformers in high speed data transmission

Weblinks

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

Technical Data

| | |
|-----------------------|-----------------|
| Rated voltage | up to 600 VAC |
| Voltage Time Integral | 150 - 400 Vµs |
| Pulse Rise Time | 0.05 - 1.5 µs |
| Turns Ratio | 1:1, 2:1, 1:1:1 |
| Terminal Type | THT |
| Weight | 6 - 11 g |
| Material: Housing | UL 94V-0 |
| Sealing Compound | UL 94V-0 |

| | |
|---------------------------|-------------------------------|
| Climatic Category | 25/100/21 acc. to IEC 60068-1 |
| Allowable Operation Temp. | -25°C to 100°C |

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.

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. |

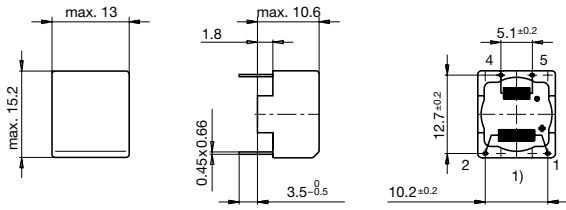
Compliances

The product complies with following Guide Lines

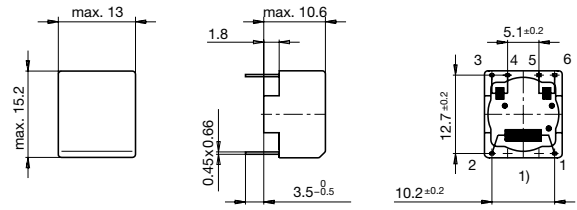
| Identification | Details | Initiator | Description |
|----------------|------------|-------------|---|
| | RoHS | SCHURTER AG | Directive RoHS 2011/65/EU, Amendment (EU) 2015/836 |
| | China RoHS | SCHURTER AG | The law SJ / T 11363-2006 (China RoHS) has been in force since 1 March 2007. It is similar 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]

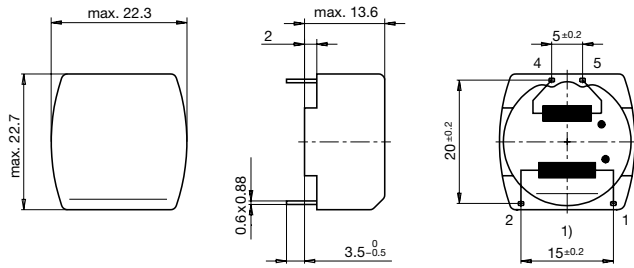
Case 35-3



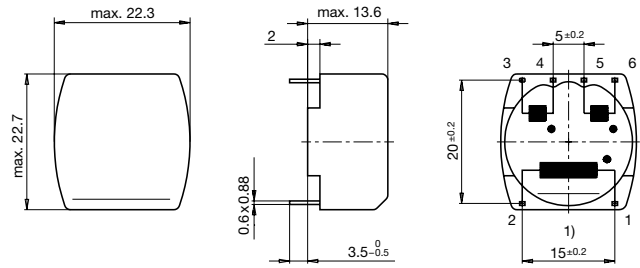
Case 35-4



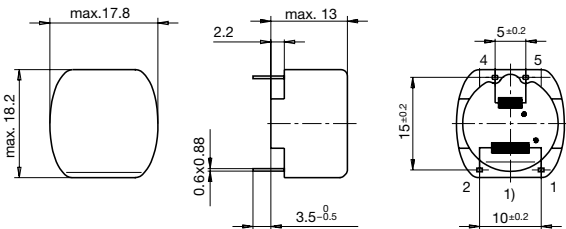
Case 39-3



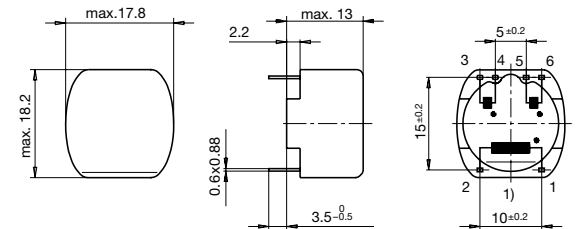
1) Prim.
 Case 39-4



Case 49-3



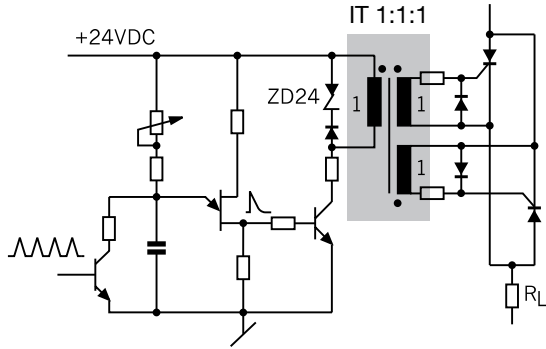
1) Prim.
 Case 49-4



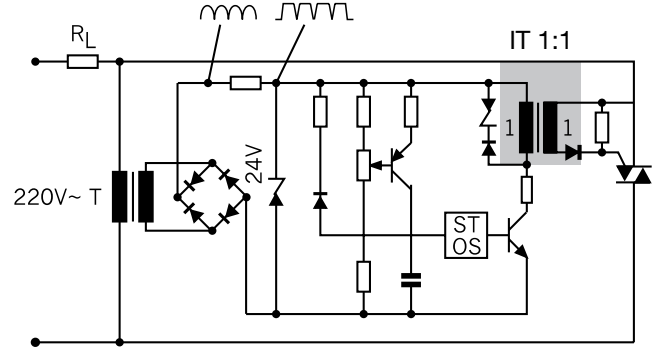
1) Prim.

1) Prim.

Diagrams



Firing of antiparallel Thyristors (SCR's) by means of unijunction and transistor amplifiers



Triac phase angle control

All Variants

| Turns Ratio | T_r [μ s] | I_{ign} [A] | U_{isol} [kV] | $U_s \times T_w$ [V μ s] | L_s [mH] | R_p [Ω] | R_s [Ω] | C_c [pF] | Weight [g] | Packing unit [pcs.] | Housings | Order Number |
|-------------|------------------|---------------|-----------------|------------------------------|------------|--------------------|--------------------|------------|------------|---------------------|----------|----------------|
| 1:1 | 0.05 | 0.1 | 3.2 | 200 | 2.8 | 1.5 | 1 | 43/80 | 8 g | 480 | 35-3 | ITRA-0235-D103 |
| 1:1 | 0.9 | 0.1 | 3.5 | 200 | 2.8 | 1 | 1 | 20 | 8 g | 480 | 35-3 | ITNA-0235-D103 |
| 1:1 | 0.1 | 0.5 | 3.2 | 400 | 2.2 | 0.4 | 0.4 | 100 | 11 g | 140 | 39-3 | ITRA-0239-D502 |
| 1:1 | 1 | 0.17 | 3.5 | 400 | 2.2 | 0.4 | 0.4 | 20 | 11 g | 140 | 39-3 | ITNA-0239-D202 |
| 1:1 | 0.05 | 0.1 | 3.2 | 300 | 3.5 | 0.7 | 0.7 | 90 | 9 g | 45 | 49-3 | ITRA-0249-D104 |
| 1:1 | 1 | 0.1 | 3.5 | 300 | 3.5 | 0.7 | 0.7 | 20 | 9 g | 45 | 49-3 | ITNA-0249-D104 |
| 1:1:1 | 0.05 | 0.1 | 3.2 | 150 | 1.1 | 1 | 0.5 | 40 | 8 g | 480 | 35-4 | ITRF-0235-D101 |
| 1:1:1 | 0.5 | 0.5 | 3.2 | 350 | 1.6 | 0.4 | 0.4 | 90 | 10 g | 140 | 39-4 | ITRF-0239-D502 |
| 1:1:1 | 1.5 | 0.17 | 3.5 | 350 | 1.6 | 0.4 | 0.4 | 20 | 10 g | 140 | 39-4 | ITNF-0239-D202 |
| 1:1:1 | 1 | 0.1 | 3.5 | 250 | 1.4 | 0.5 | 0.5 | 20 | 9 g | 45 | 49-4 | ITNF-0249-D101 |
| 2:1 | 0.5 | 0.5 | 3.2 | 350 | 1.8 | 0.8 | 0.4 | 90 | 9 g | 140 | 39-3 | ITRB-0239-D502 |
| 2:1 | 0.05 | 0.1 | 3.2 | 250 | 1.4 | 1 | 0.5 | 70 | 9 g | 45 | 49-3 | ITRB-0249-D101 |
| 2:1 | 1 | 0.1 | 3.5 | 250 | 1.6 | 1 | 0.5 | 20 | 6 g | 45 | 49-3 | ITNB-0249-D101 |

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