

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 live

### 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 datasheet](#), [General Product Information](#), [Approvals](#), [Distributor-Stock-Check](#), [Detailed request for product](#)

### Technical Data

Rated voltage	up to 600 VAC
Voltage Time Integral	150 - 400 V $\mu$ s
Pulse Rise Time	0.05 - 1.5 $\mu$ s
Turns Ratio	1:1, 2:1, 1:1:1
Terminal Type	THT
Weight	6 - 11 g
Material	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
IEC	Suitable for applications acc.	IEC/UL 62368-1	Audio/video, information and communication technology equipment - Part 1: Safety requirements

### Compliances

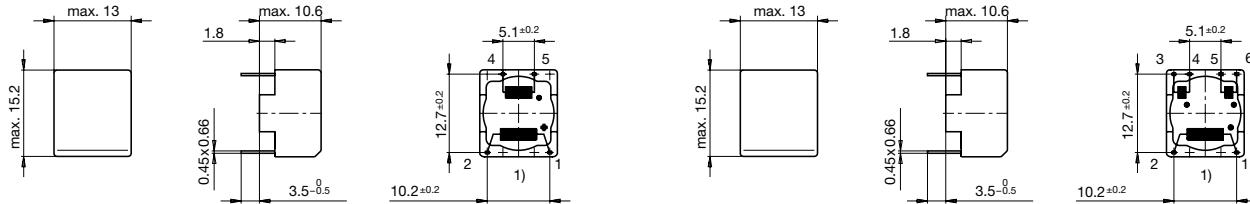
The product complies with following Guide Lines

Identification	Details	Initiator	Description
RoHS	RoHS	SCHURTER AG	Directive RoHS 2011/65/EU, Amendment (EU) 2015/863
China RoHS	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	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

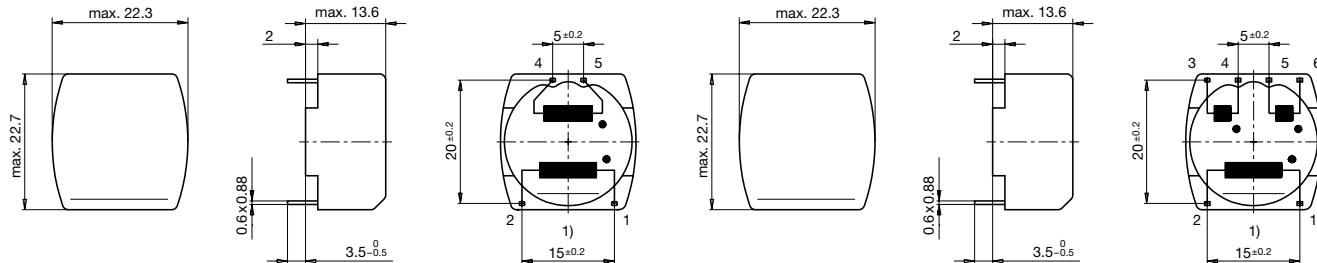
Case 35-4



Case 39-3

1) Prim.

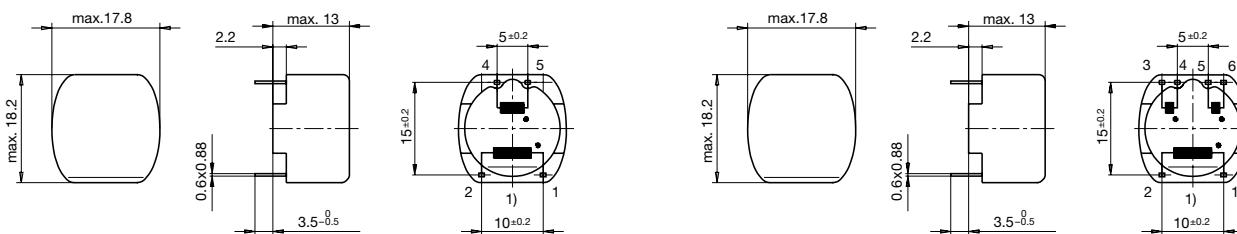
Case 39-4



Case 49-3

1) Prim.

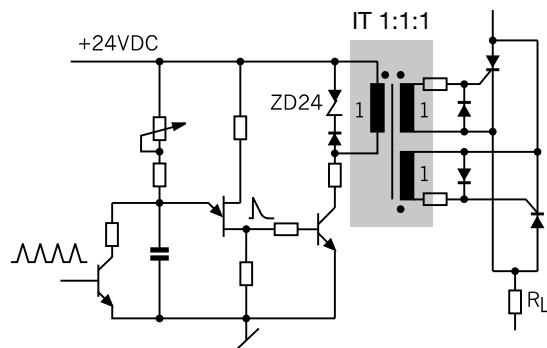
Case 49-4



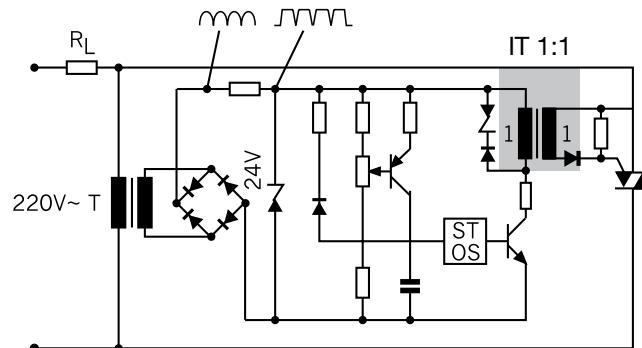
1) Prim.

1) Prim.

## Diagrams



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



Triac phase angle control

## Variants

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

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