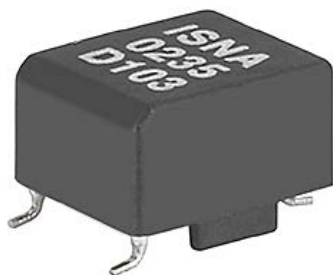


## Pulse transformers for SMD mounting



### 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

### Standards

- VDE 110b

### 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-datasheet](#), [html-datasheet](#), [General Product Information](#), [Approvals](#), [CE declaration of conformity](#), [RoHS](#), [CHINA-RoHS](#), [e-Shop](#), [SCHURTER-Stock-Check](#), [Distributor-Stock-Check](#), [Detailed request for product](#)

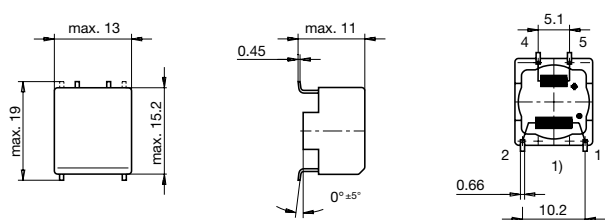
### Technical Data

|                       |                 |
|-----------------------|-----------------|
| 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 technic      | SMD             |
| Weight                | 3 - 10 g        |
| Material: Housing     | UL 94V-0        |
| Sealing Compound      | UL 94V-0        |

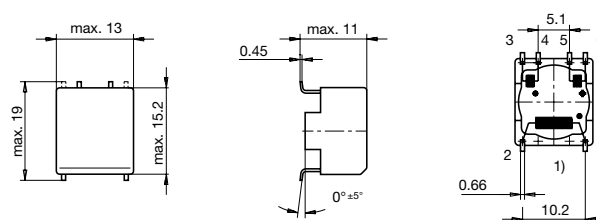
|                           |                               |
|---------------------------|-------------------------------|
| Climatic Category         | 25/100/21 acc. to IEC 60068-1 |
| Allowable Operation Temp. | -25 °C to 100 °C              |

### Dimension

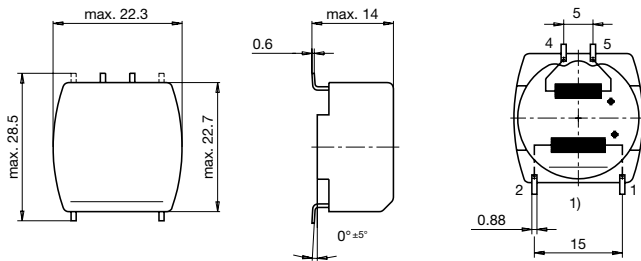
#### Case 35-3S



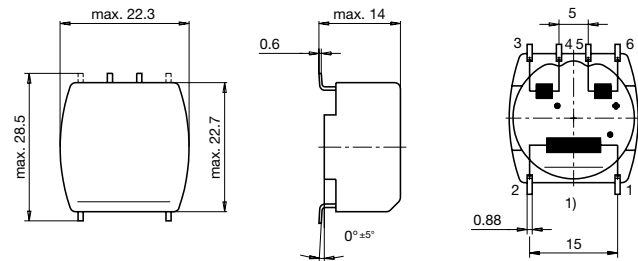
#### Case 35-4S



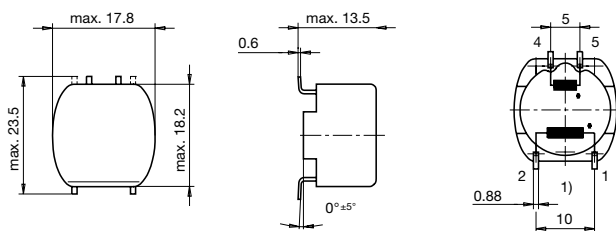
Case 39-3S



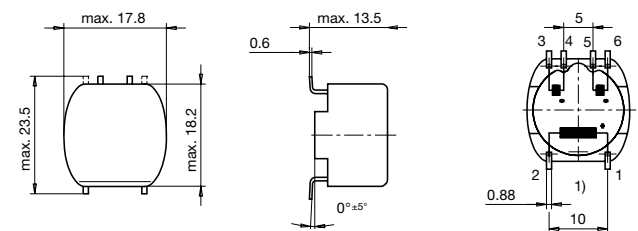
Case 39-4S



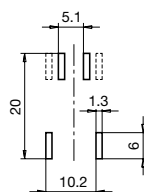
Case 49-3S



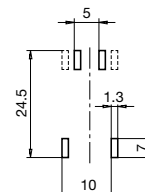
Case 49-4S



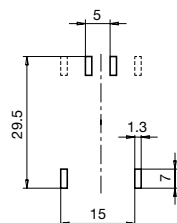
1) Prim.

Possible solder land pattern for SMD mounting  
Case 35S

1) Prim.

Possible solder land pattern for SMD mounting  
Case 49S

Possible solder land pattern for SMD mounting  
Case 39S



## Variants

| Turns Ratio | $T_r$ [ $\mu$ s] | $I_{ign}$ [A] | $U_{isol}$ [kV] | $U_s \times T_w$ [V $\mu$ s] | $L_s$ [mH] | $R_p$ [ $\Omega$ ] | $R_s$ [ $\Omega$ ] | $C_C$ [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      | 8 g        | 170                 | 35-3S   | ISRA-0235-D103 |
| 1:1         | 1                | 0.17          | 3.5             | 400                          | 2.2        | 0.4                | 0.4                | 20         | 10 g       | 140                 | 39-3S   | ISNA-0239-D202 |
| 1:1         | 0.05             | 0.1           | 3.2             | 300                          | 3.5        | 0.7                | 0.7                | 90         | 9 g        | 45                  | 49-3S   | ISRA-0249-D104 |
| 1:1         | 1                | 0.1           | 3.5             | 300                          | 3.5        | 0.7                | 0.7                | 20         | 6 g        | 45                  | 49-3S   | ISNA-0249-D104 |
| 1:1:1       | 0.05             | 0.1           | 3.2             | 150                          | 1.1        | 1                  | 0.5                | 40         | 8 g        | 480                 | 35-4S   | ISRF-0235-D101 |
| 1:1:1       | 0.9              | 0.1           | 3.5             | 150                          | 1.1        | 0.5                | 0.5                | 10         | 8 g        | 160                 | 35-4S   | ISNF-0135-D101 |
| 1:1:1       | 0.5              | 0.5           | 3.2             | 350                          | 1.6        | 0.4                | 0.4                | 90         | 10 g       | 140                 | 39-4S   | ISRF-0239-D502 |
| 1:1:1       | 1.5              | 0.17          | 3.5             | 350                          | 1.6        | 0.4                | 0.4                | 20         | 10 g       | 140                 | 39-4S   | ISNF-0239-D202 |
| 1:1:1       | 0.05             | 0.1           | 3.2             | 250                          | 1.2        | 0.4                | 0.5                | 70         | 6 g        | 45                  | 49-4S   | ISRF-0249-D101 |
| 1:1:1       | 1                | 0.1           | 3.5             | 250                          | 1.4        | 0.5                | 0.5                | 20         | 9 g        | 45                  | 49-4S   | ISNF-0249-D101 |
| 2:1         | 0.5              | 0.5           | 3.2             | 350                          | 1.8        | 0.8                | 0.4                | 90         | 9 g        | 140                 | 39-3S   | ISRB-0239-D502 |
| 2:1         | 1.5              | 0.17          | 3.5             | 350                          | 1.8        | 0.8                | 0.4                | 20         | 9 g        | 140                 | 39-3S   | ISNB-0239-D202 |
| 2:1         | 0.05             | 0.1           | 3.2             | 250                          | 1.4        | 1                  | 0.5                | 70         | 9 g        | 45                  | 49-3S   | ISRB-0249-D101 |
| 2:1         | 1                | 0.1           | 3.5             | 250                          | 1.6        | 1                  | 0.5                | 20         | 9 g        | 45                  | 49-3S   | ISNB-0249-D101 |

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