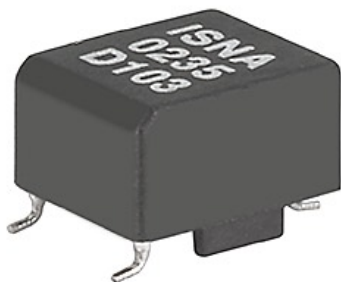


## Pulse transformers for SMD mounting

**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

**References**

[General Product Information](#)

**Weblinks**

[Approvals](#), [RoHS](#), [CHINA-RoHS](#), [e-Store](#), [SCHURTER-Stock-Check](#), [Distributor-Stock-Check](#)

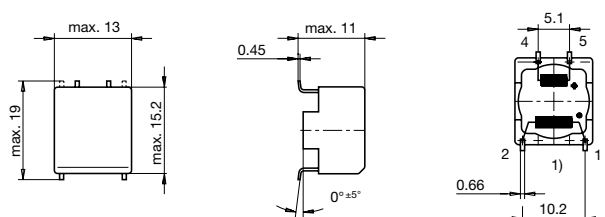
**Technical Data**

|                                        |                     |
|----------------------------------------|---------------------|
| Rated Voltage                          | up to 600 VAC       |
| Voltage-time Integral $U_s \times t_w$ | 150 - 400 V $\mu$ s |
| Pulse Rise Time                        | 0.05 - 1.5 $\mu$ s  |
| Turn 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            |

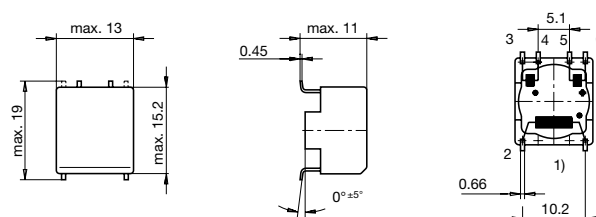
|                           |                               |
|---------------------------|-------------------------------|
| Climatic Category         | 25/100/21 acc. to IEC 60068-1 |
| Allowable Operation Temp. | -25 °C to 100 °C              |

**Dimensions**

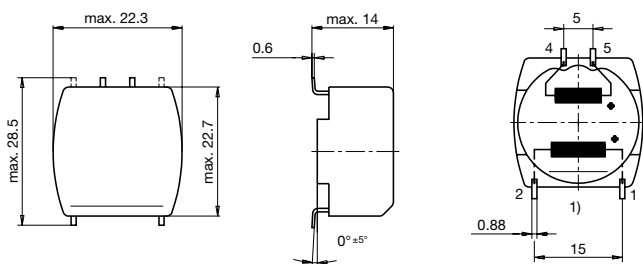
## Case 35-3S



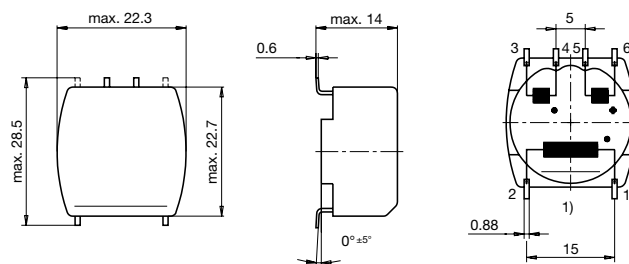
## Case 35-4S



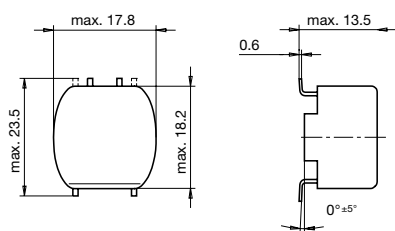
Case 39-3S



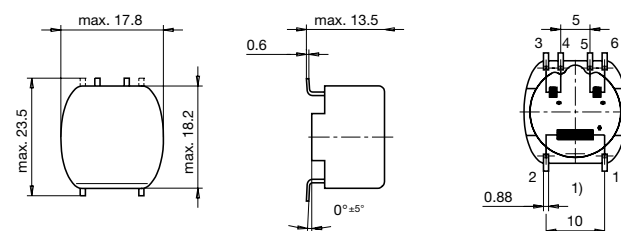
Case 39-4S



Case 49-3S

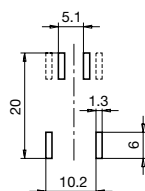


Case 49-4S



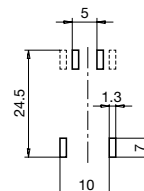
1) Prim.

Possible solder land pattern for SMD mounting  
Case 39S

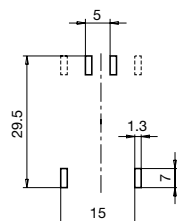


1) Prim.

Possible solder land pattern for SMD mounting  
Case 49S



Possible solder land pattern for SMD mounting  
Case 39S



## Variants

[Distributor-Stock-Check](#) | [SCHURTER-Stock-Check](#) | [e-Store](#)

| Turn 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.] | Case  | Order Number   |
|------------|------------|---------------|-----------------|------------------------|------------|-----------|-----------|------------|------------|---------------------|-------|----------------|
| 1:1        | 0.05       | 0.1           | 3.2             | 200                    | 2.8        | 1.5       | 1         | 80         | 8          | 480                 | 35-3S | ISRA-0235-D103 |
| 1:1        | 0.9        | 0.1           | 3.5             | 200                    | 2.8        | 1         | 1         | 20         | 3          | 480                 | 35-3S | ISNA-0235-D103 |
| 1:1        | 0.1        | 0.5           | 3.2             | 400                    | 2.2        | 0.4       | 0.4       | 100        | 10         | 140                 | 39-3S | ISRA-0239-D502 |
| 1:1        | 1          | 0.17          | 3.5             | 400                    | 2.2        | 0.4       | 0.4       | 20         | 10         | 28                  | 39-3S | ISNA-0239-D202 |
| 1:1        | 0.05       | 0.1           | 3.2             | 300                    | 3.5        | 0.7       | 0.7       | 90         | 9          | 40                  | 49-3S | ISRA-0249-D104 |
| 1:1        | 1          | 0.1           | 3.5             | 300                    | 3.5        | 0.7       | 0.7       | 20         | 6          | 45                  | 49-3S | ISNA-0249-D104 |
| 1:1:1      | 0.05       | 0.1           | 3.2             | 150                    | 1.1        | 1         | 0.5       | 40         | 8          | 160                 | 35-4S | ISRF-0235-D101 |
| 1:1:1      | 0.9        | 0.1           | 3.5             | 150                    | 1.1        | 0.5       | 0.5       | 10         | 8          | 170                 | 35-4S | ISNF-0135-D101 |
| 1:1:1      | 0.5        | 0.5           | 3.2             | 350                    | 1.6        | 0.4       | 0.4       | 90         | 10         | 140                 | 39-4S | ISRF-0239-D502 |
| 1:1:1      | 1.5        | 0.17          | 3.5             | 350                    | 1.6        | 0.4       | 0.4       | 20         | 10         | 140                 | 39-4S | ISNF-0239-D202 |
| 1:1:1      | 0.05       | 0.1           | 3.2             | 250                    | 1.2        | 0.4       | 0.5       | 70         | 6          | 45                  | 49-4S | ISRF-0249-D101 |
| 1:1:1      | 1          | 0.1           | 3.5             | 250                    | 1.4        | 0.5       | 0.5       | 20         | 9          | 45                  | 49-4S | ISNF-0249-D101 |
| 2:1        | 0.5        | 0.5           | 3.2             | 350                    | 1.8        | 0.8       | 0.4       | 90         | 9          | 140                 | 39-3S | ISRB-0239-D502 |
| 2:1        | 1.5        | 0.17          | 3.5             | 350                    | 1.8        | 0.8       | 0.4       | 20         | 9          | 140                 | 39-3S | ISNB-0239-D202 |
| 2:1        | 0.05       | 0.1           | 3.2             | 250                    | 1.4        | 1         | 0.5       | 70         | 9          | 45                  | 49-3S | ISRB-0249-D101 |
| 2:1        | 1          | 0.1           | 3.5             | 250                    | 1.6        | 1         | 0.5       | 20         | 9          | 45                  | 49-3S | ISNB-0249-D101 |