

# PT SERIES

## Pulse transformers designed for Semikron

### Features

- Voltage-time area ( $\int Vdt$ ): from 250 $\mu$ Vs to 2000 $\mu$ Vs.
- Pulse rise time ( $t_r$ ): from 0,8 $\mu$ s to 4 $\mu$ s.
- Working voltage ( $V_w$ ): From 500Vac to 3200Vac.
- Isolation voltage according to IEC60664-1.
- Ambient temperature: -40°C to +85°C.
- Storage temperature: from -40°C to +120°C.
- Plastic case: UL 94V-0.
- Potting resin: UL94V-0.



### Electrical specifications

| Types     | Np : Ns | $\int Vdt$<br>( $\mu$ Vs) | R <sub>p</sub><br>Typ<br>( $\Omega$ ) | R <sub>s</sub><br>Typ<br>( $\Omega$ ) | L <sub>p</sub> (mH)<br>at 10kHz<br>$\pm$ 30% | L <sub>leak</sub><br>( $\mu$ H)<br>MAX | C <sub>c</sub><br>(pF)<br>MAX | I <sub>m</sub><br>(mA) | t <sub>r</sub><br>( $\mu$ s) | R <sub>L</sub><br>( $\Omega$ ) | V <sub>w</sub><br>(V) | Visol<br>P/S<br>(kVac) | Visol<br>S/S<br>(kVac) | Config |
|-----------|---------|---------------------------|---------------------------------------|---------------------------------------|--|--|-------------------------------|------------------------|------------------------------|--------------------------------|-----------------------|------------------------|------------------------|--------|
| PT 14b2,5 | 1:1:1   | 250                       | 0,9                                   | 0,9                                   | 1,7  | 5                                      | 45                            | 200                    | 1                            | 50                             | 500                   | 4                      | 3                      | B      |
| PT 14k2,5 | 1:1:1   | 250                       | 0,9                                   | 0,9                                   | 1,7  | 5                                      | 45                            | 200                    | 1                            | 50                             | 500                   | 4                      | 3                      | C      |
| PT 14c2,5 | 2:1     | 250                       | 1,8                                   | 0,9                                   | 6,7  | 15                                     | 45                            | 200                    | 1                            | 50                             | 500                   | 4                      | -                      | D      |
| PT 14a3   | 1:1     | 350                       | 1,2                                   | 1,2                                   | 2,9  | 20                                     | 40                            | 300                    | 1                            | 50                             | 500                   | 4                      | -                      | A      |
| PT 14i3   | 1:1     | 350                       | 1,2                                   | 1,2                                   | 2,9  | 20                                     | 40                            | 300                    | 1                            | 50                             | 500                   | 4                      | -                      | D      |
| PT 14g3   | 2:1:1   | 300                       | 4,0                                   | 2,5                                   | 11,4   | 20                                     | 50                            | 300                    | 1                            | 50                             | 500                   | 4                      | 3                      | B      |
| PT 14c3,5 | 2:1     | 350                       | 3,5                                   | 2,4                                   | 14   | 30                                     | 50                            | 300                    | 1                            | 50                             | 500                   | 4                      | -                      | D      |
| PT 14i5   | 1:1     | 500                       | 2,5                                   | 2,5                                   | 5,6  | 15                                     | 45                            | 350                    | 1                            | 50                             | 500                   | 4                      | -                      | D      |
| PT 14k6   | 1:1:1   | 600                       | 3,6                                   | 3,6                                   | 9,7  | 10                                     | 45                            | 400                    | 1,2                          | 50                             | 500                   | 4                      | 3                      | C      |
| PT 22a3   | 1:1     | 300                       | 0,6                                   | 0,6                                   | 3  | 4,5                                    | 40                            | 800                    | 0,8                          | 15                             | 690                   | 4                      | -                      | A      |
| PT 22b3   | 1:1:1   | 300                       | 0,6                                   | 0,6                                   | 3  | 4,5                                    | 40                            | 800                    | 0,8                          | 15                             | 690                   | 4                      | 4                      | B      |
| PT 22c3   | 2:1     | 300                       | 1                                     | 0,6                                   | 6  | 6,5                                    | 55                            | 800                    | 0,8                          | 15                             | 690                   | 4                      | -                      | A      |
| PT 22d3   | 3:1     | 300                       | 1,5                                   | 0,6                                   | 26   | 20                                     | 65                            | 800                    | 0,8                          | 15                             | 690                   | 4                      | -                      | A      |
| PT 22e3   | 3:1:1   | 300                       | 1,2                                   | 0,5                                   | 26   | 20                                     | 45                            | 800                    | 0,8                          | 50                             | 690                   | 4                      | 4                      | B      |
| PT 22b4   | 1:1:1   | 400                       | 0,8                                   | 0,8                                   | 5,5  | 10                                     | 55                            | 800                    | 1                            | 15                             | 690                   | 4                      | 4                      | B      |
| PT 22a5   | 1:1     | 500                       | 1                                     | 1                                     | 7,5  | 10                                     | 30                            | 800                    | 1                            | 15                             | 690                   | 4                      | -                      | A      |
| PT 22b5   | 1:1:1   | 500                       | 1                                     | 1                                     | 7,7  | 10                                     | 45                            | 800                    | 1                            | 15                             | 690                   | 4                      | 4                      | B      |

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## Electrical specifications

| Types        | Np : Ns | $\int Vdt$<br>( $\mu Vs$ ) | Rp<br>Typ<br>( $\Omega$ ) | Rs<br>Typ<br>( $\Omega$ ) | Lp (mH)<br>at 10kHz<br>$\pm 30\%$ | Lleak<br>( $\mu H$ )<br>MAX | Cc<br>(pF)<br>MAX | Im<br>(mA) | tr<br>( $\mu s$ ) | Rl<br>( $\Omega$ ) | Vw<br>(V) | Visol<br>P/S<br>(kVac) | Visol<br>S/S<br>(kVac) | Config |
|--------------|---------|----------------------------|---------------------------|---------------------------|-----------------------------------|-----------------------------|-------------------|------------|-------------------|--------------------|-----------|------------------------|------------------------|--------|
| PT 25j2      | 2:2     | 200                        | 0,8                       | 1,5                       | 1,27                              | 20                          | 7,5               | 450        | 4                 | 50                 | 500       | 5                      | 3,5                    | 1-G    |
| PT 25a3      | 1:1     | 300                        | 0,5                       | 0,5                       | 2                                 | 3                           | 50                | 250        | 1                 | 50                 | 500       | 4                      | -                      | 1-A    |
| PT 25b3      | 1:1:1   | 300                        | 0,5                       | 0,5                       | 2                                 | 3                           | 60                | 250        | 1                 | 50                 | 500       | 4                      | 4                      | 1-B    |
| PT 25e3      | 3:1:1   | 300                        | 1,7                       | 0,55                      | 15,8                              | 20                          | 55                | 250        | 1                 | 50                 | 500       | 4                      | 4                      | 1-B    |
| PT 25h3      | 1:1:1:1 | 300                        | 0,55                      | 0,55                      | 2                                 | 5                           | 65                | 250        | 1                 | 50                 | 500       | 4                      | 4                      | 1-C    |
| PT 25k3      | 1:1:1   | 300                        | 0,5                       | 0,5                       | 2                                 | 3                           | 60                | 250        | 1                 | 50                 | 650       | 4                      | 4                      | 1-E    |
| PT 25m3      | 1:1     | 300                        | 0,5                       | 0,5                       | 1,8                               | 50                          | 10                | 200        | 2                 | 50                 | 1000      | 6                      | -                      | 1-F    |
| PT 25n3      | 3:1     | 300                        | 1,7                       | 0,55                      | 15,8                              | 400                         | 10                | 200        | 2                 | 50                 | 1000      | 6                      | -                      | 1-F    |
| PT 25p3      | 3:1:1   | 300                        | 1,7                       | 0,55                      | 15,8                              | 20                          | 45                | 250        | 1                 | 50                 | 650       | 4                      | 4                      | 1-E    |
| PT 25a4      | 1:1     | 400                        | 0,6                       | 0,6                       | 4,2                               | 5                           | 70                | 300        | 1                 | 50                 | 500       | 4                      | -                      | 1-A    |
| PT 25b4      | 1:1:1   | 400                        | 0,6                       | 0,6                       | 4,2                               | 5                           | 60                | 300        | 1                 | 50                 | 500       | 4                      | 4                      | 1-B    |
| PT 25b4/hs   | 1:1:1   | 400                        | 0,9                       | 0,9                       | 2,2                               | 5                           | 70                | 300        | 1                 | 50                 | 700       | 4                      | 4                      | 1-D    |
| PT 25g4      | 2:1:1   | 400                        | 1,7                       | 1                         | 12,3                              | 250                         | 8,5               | 200        | 4                 | 50                 | 500       | 5                      | 3,5                    | 1-G    |
| PT 25a5      | 1:1     | 500                        | 1                         | 1                         | 5,5                               | 15                          | 40                | 400        | 1                 | 50                 | 500       | 4                      | -                      | 1-A    |
| PT 25b5      | 1:1:1   | 500                        | 1                         | 1                         | 5,5                               | 10                          | 50                | 400        | 1                 | 50                 | 500       | 4                      | 4                      | 1-B    |
| PT 25m5      | 1:1     | 500                        | 1                         | 1                         | 5,5                               | 125                         | 8                 | 250        | 5                 | 50                 | 1000      | 6                      | -                      | 1-F    |
| PT 25o5      | 2:1     | 500                        | 2                         | 1                         | 31,7                              | 500                         | 8,5               | 250        | 5                 | 50                 | 1000      | 6                      | -                      | 1-F    |
| PT 25b6/N    | 1:1:1   | 650                        | 1                         | 1                         | 5,7                               | 15                          | 70                | 500        | 1                 | 50                 | 600       | 4                      | 4                      | 1-B    |
| PT 25b8      | 1:1:1   | 800                        | 1,7                       | 1,7                       | 13,5                              | 15                          | 70                | 600        | 1,5               | 50                 | 500       | 4                      | 4                      | 1-B    |
| PT 25b10     | 1:1:1   | 1000                       | 1,8                       | 1,8                       | 18,3                              | 25                          | 55                | 700        | 1,5               | 50                 | 500       | 4                      | 4                      | 1-B    |
| PT 25b20     | 1:1:1   | 2000                       | 6,8                       | 6,8                       | 56                                | 65                          | 70                | 800        | 2                 | 50                 | 500       | 4                      | 4                      | 1-B    |
| PT 909       | 1:1     | 400                        | 0,9                       | 0,9                       | 4,2                               | 5                           | 50                | 300        | 1                 | 50                 | 900       | 3                      | -                      | 2-A    |
| PT 26a3      | 1:1     | 300                        | 0,55                      | 0,55                      | 2                                 | 5                           | 50                | 250        | 1                 | 50                 | 500       | 4                      | -                      | A      |
| PT 26b3      | 1:1:1   | 300                        | 0,55                      | 0,55                      | 2                                 | 5                           | 60                | 250        | 1                 | 50                 | 500       | 4                      | 4                      | B      |
| PT 26e3      | 3:1:1   | 300                        | 1,8                       | 0,5                       | 14,7                              | 25                          | 50                | 250        | 1                 | 50                 | 500       | 4                      | 4                      | B      |
| PT 26b10     | 1:1:1   | 1000                       | 2,3                       | 2,3                       | 18,3                              | 25                          | 50                | 700        | 2,5               | 50                 | 500       | 4                      | 4                      | B      |
| PT26n3       | 3:1     | 300                        | 1,7                       | 0,70                      | 15,8                              | 400                         | 30                | 200        | 2                 | 50                 | 1000      | 6                      | -                      | C      |
| PT 27a3      | 1:1     | 300                        | 0,3                       | 0,3                       | 2                                 | 2                           | 70                | 1200       | 1                 | 10                 | 690       | 4                      | -                      | A      |
| PT 27b3      | 1:1:1   | 300                        | 0,3                       | 0,3                       | 2                                 | 2                           | 70                | 1200       | 1                 | 10                 | 690       | 4                      | 4                      | B      |
| PT 27d3,5    | 3:1     | 350                        | 0,6                       | 0,3                       | 19,7                              | 10                          | 120               | 2000       | 1                 | 5                  | 690       | 4                      | -                      | A      |
| PT 27e3,5    | 3:1:1   | 350                        | 0,6                       | 0,3                       | 19,7                              | 7                           | 100               | 2000       | 1                 | 5                  | 690       | 4                      | 4                      | B      |
| PT 27b4/1300 | 1:1:1   | 450                        | 0,15                      | 0,15                      | 0,55                              | 4                           | 40                | 2000       | 1                 | 10                 | 1300      | 6                      | 5                      | B      |
| PT 27a5      | 1:1     | 500                        | 0,4                       | 0,4                       | 5                                 | 8                           | 105               | 2000       | 1                 | 10                 | 690       | 4                      | 4                      | A      |
| PT 27b5      | 1:1:1   | 500                        | 0,4                       | 0,4                       | 5                                 | 8                           | 120               | 2000       | 1                 | 10                 | 690       | 4                      | 4                      | B      |
| PT 27a10     | 1:1     | 1000                       | 0,4                       | 0,4                       | 2,2                               | 8                           | 160               | 2000       | 1,5               | 10                 | 690       | 4                      | 4                      | A      |
| PT 27b10     | 1:1:1   | 1000                       | 0,5                       | 0,5                       | 2,2                               | 8                           | 100               | 2000       | 1,5               | 10                 | 690       | 4                      | 4                      | B      |
| PT 27b10ES   | 1:1:1   | 1000                       | 0,5                       | 0,5                       | 2,2                               | 20                          | 60                | 2000       | 1,5               | 10                 | 690       | 4                      | 4                      | C      |
| PT 27c10     | 2:1     | 1000                       | 0,7                       | 0,35                      | 10                                | 23                          | 180               | 2000       | 1                 | 10                 | 690       | 4                      | 4                      | A      |
| PT HVb3      | 1:1:1   | 300                        | 0,3                       | 0,3                       | 2,8                               | 75                          | 15                | 1000       | 1                 | 50                 | 3200      | 12                     | 12                     | A      |

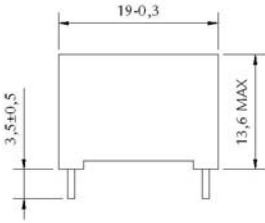
# PT SERIES

Pulse transformers designed for Semikron

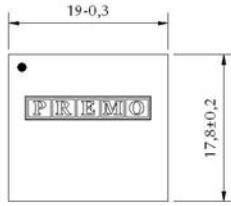
## Winding configurations and dimensions

PT-14 SERIES

Pulse Transformers

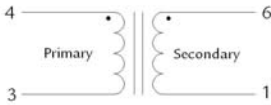
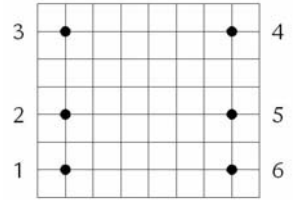


Configuration A

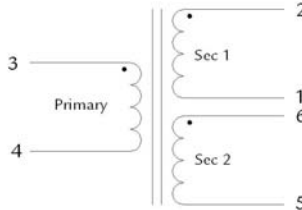


Configuration C

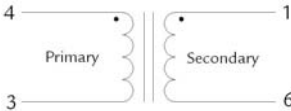
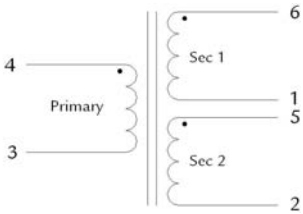
View by the side of the pins



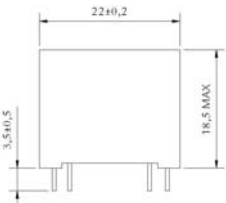
Configuration B



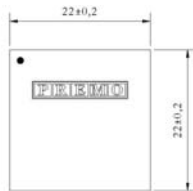
Configuration D



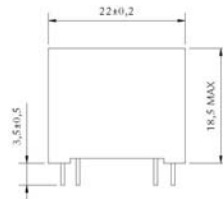
PT-22 SERIES



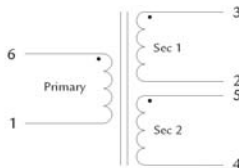
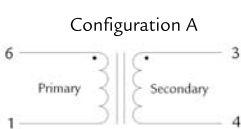
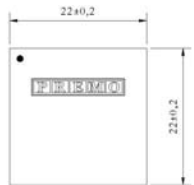
Configuration A



View by the side of the pins



Configuration B



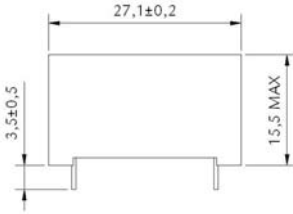
All dimensions in mm; Pin diameter = 0,6mm typ; Pins with no connection are removed; Grid = 2,5mm unless otherwise indicated; Pin grid tolerance = ±0,2mm; Dot on the top indicating pin number 1.

# PT SERIES

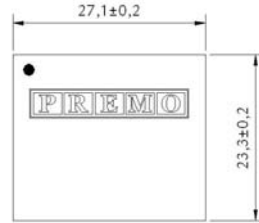
Pulse transformers designed for Semikron

## Winding configurations and dimensions

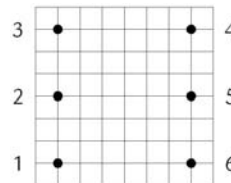
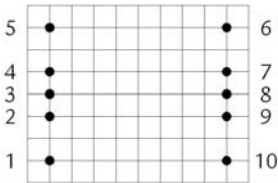
PT-25 SERIES



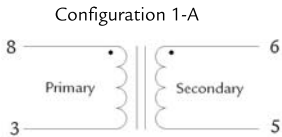
1 - Configuration



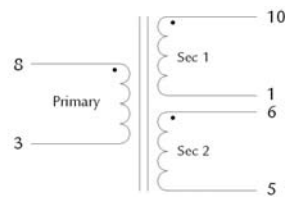
2 - Configuration  
Special raster 2,54 mm



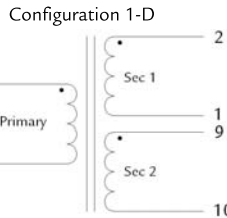
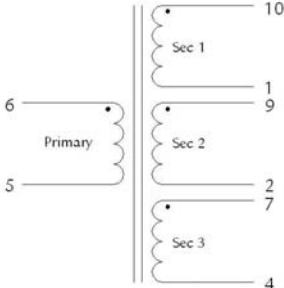
View by the side of the pins



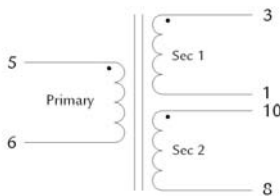
Configuration 1-B



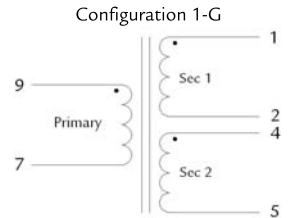
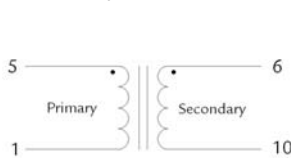
Configuration 1-C



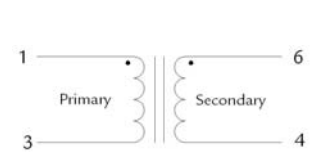
Configuration 1-E



Configuration 1-F



Configuration 2-A



All dimensions in mm; Pin diameter = 0,6mm typ; Pins with no connection are removed; Grid = 2,5mm unless otherwise indicated; Pin grid tolerance = ±0,2mm; Dot on the top indicating pin number 1.

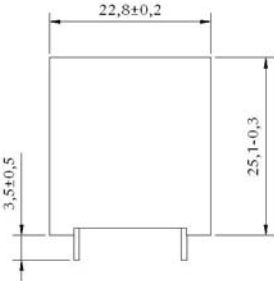
# PT SERIES

Pulse transformers designed for Semikron

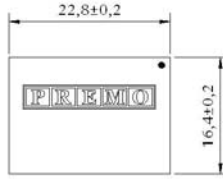
Pulse Transformers

## Winding configurations and dimensions

### PT-26 SERIES

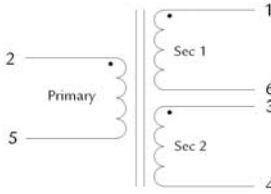
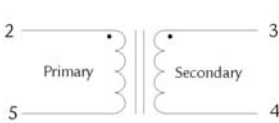
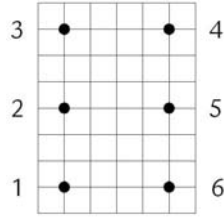


Configuration A

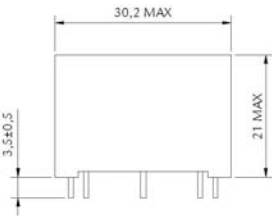


Configuration B

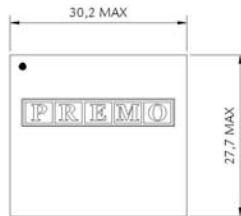
View by the side of the pins



### PT-27 SERIES

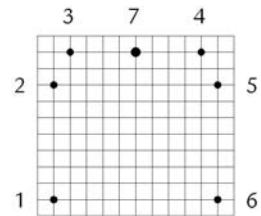


Configuration A

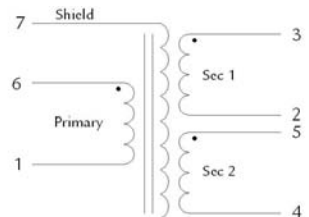
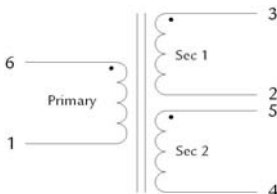
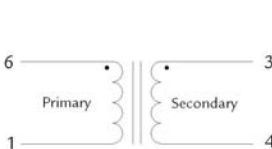


Configuration B

Shield pin number 7  $\varnothing$ 0,8mm  
View by the side of the pins



Configuration C



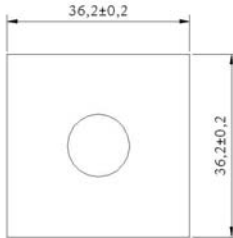
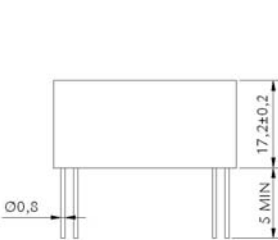
All dimensions in mm; Pin diameter = 0,6mm typ; Pins with no connection are removed; Grid = 2,5mm unless otherwise indicated; Pin grid tolerance =  $\pm$ 0,2mm; Dot on the top indicating pin number 1.

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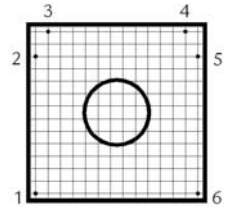
Pulse transformers designed for Semikron

## Winding configurations and dimensions

PT-HV



View by the side of the pins



Configuration A

