

# Transformers

## Pulse Transformers

### SMD

## CPT Series

### FEATURES

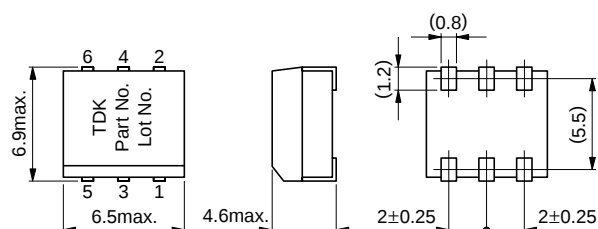
- Employs TDK compact toroidal ferrite cores.
- Transfer molded for highest quality .
- Supports reflow soldering.

### SPECIFICATIONS

|                       |           |                             |
|-----------------------|-----------|-----------------------------|
| Insulation resistance |           | 100M $\Omega$ min.[DC.100V] |
| Withstand voltage Edc |           | 100V                        |
| Temperature range     | Operating | 0 to +70°C                  |
|                       | Storage   | -55 to +125°C               |

### 6 × 6 TYPE

### SHAPES AND DIMENSIONS



Weight: 0.5g typ.  
Dimensions in mm

### WINDING CONFIGURATIONS/PIN NUMBERING

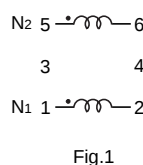


Fig.1

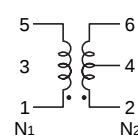


Fig.2



### ELECTRICAL CHARACTERISTICS

| Part No. | Turns ratio<br>N <sub>1</sub> :N <sub>2</sub> | Inductance<br>( $\mu$ H)±20%<br>N <sub>1</sub> | Leakage inductance<br>( $\mu$ H)max.<br>[N <sub>2</sub> shorted] | Inter-winding<br>capacitance<br>(pF)max.<br>N <sub>1</sub> to N <sub>2</sub> | DC resistance( $\Omega$ )max. |                | ET<br>constant<br>(V- $\mu$ s)<br>min. | Fig. |
|----------|-----------------------------------------------|------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------------------------|-------------------------------|----------------|----------------------------------------|------|
|          |                                               |                                                |                                                                  |                                                                              | N <sub>1</sub>                | N <sub>2</sub> |                                        |      |
| CPT11A1  | 1:1                                           | 10                                             | 0.2                                                              | 5                                                                            | 0.3                           | 0.3            | 0.8                                    | 1    |
| CPT11A2  | 1:1                                           | 35                                             | 0.2                                                              | 5                                                                            | 0.4                           | 0.4            | 1.4                                    | 1    |
| CPT11A3  | 1:1                                           | 50                                             | 0.2                                                              | 7                                                                            | 0.4                           | 0.4            | 1.6                                    | 1    |
| CPT11A4  | 1:1                                           | 75                                             | 0.2                                                              | 7                                                                            | 0.4                           | 0.4            | 1.6                                    | 1    |
| CPT11A5  | 1:1                                           | 100                                            | 0.2                                                              | 9                                                                            | 0.5                           | 0.5            | 1.9                                    | 1    |
| CPT12C1  | 1:2CT*                                        | 10                                             | 0.2                                                              | 5                                                                            | 0.3                           | 0.6            | 0.8                                    | 2    |
| CPT12C2  | 1:2CT                                         | 35                                             | 0.2                                                              | 7                                                                            | 0.4                           | 0.8            | 1.4                                    | 2    |
| CPT12C3  | 1:2CT                                         | 50                                             | 0.2                                                              | 10                                                                           | 0.4                           | 0.8            | 1.6                                    | 2    |
| CPT12C4  | 1:2CT                                         | 75                                             | 0.2                                                              | 10                                                                           | 0.4                           | 0.8            | 1.6                                    | 2    |
| CPT12C5  | 1:2CT                                         | 100                                            | 0.2                                                              | 15                                                                           | 0.5                           | 1              | 1.9                                    | 2    |
| CPT14C1  | 1:4CT                                         | 10                                             | 0.2                                                              | 5                                                                            | 0.3                           | 1.2            | 0.8                                    | 2    |
| CPT14C2  | 1:4CT                                         | 35                                             | 0.2                                                              | 9                                                                            | 0.4                           | 1.6            | 1.4                                    | 2    |
| CPT14C3  | 1:4CT                                         | 50                                             | 0.2                                                              | 10                                                                           | 0.4                           | 1.6            | 1.6                                    | 2    |
| CPT14C4  | 1:4CT                                         | 75                                             | 0.2                                                              | 10                                                                           | 0.4                           | 1.6            | 1.6                                    | 2    |
| CPT14C5  | 1:4CT                                         | 100                                            | 0.2                                                              | 15                                                                           | 0.5                           | 2              | 1.9                                    | 2    |

\*CT: Center-tapped

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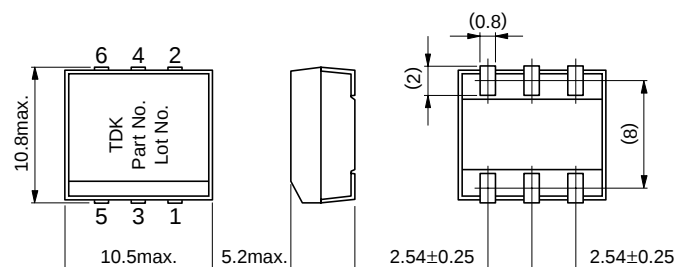
## Pulse Transformers

### SMD

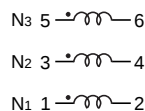
## CPT Series

### 10 ×10 TYPE

#### SHAPES AND DIMENSIONS



#### WINDING CONFIGURATIONS/PIN NUMBERING



Weight: 1.2g typ.

Dimensions in mm

#### ELECTRICAL CHARACTERISTICS

| Part No. | Turns ratio<br>N1:N2:N3 | Inductance<br>( $\mu$ H)±20%<br>N1 | Leakage inductance<br>( $\mu$ H)max.<br>[N3 shorted] | Inter-winding<br>capacitance<br>(pF)max.<br>N1 to N2 | DC resistance( $\Omega$ )max. |     |     | ET<br>constant<br>(V· $\mu$ s)<br>min. |
|----------|-------------------------|------------------------------------|------------------------------------------------------|------------------------------------------------------|-------------------------------|-----|-----|----------------------------------------|
|          |                         |                                    |                                                      |                                                      | N1                            | N2  | N3  |                                        |
| CPT11B6  | 1:1:1                   | 100                                | 0.4                                                  | 9                                                    | 0.5                           | 0.5 | 0.5 | 4                                      |
| CPT11B7  | 1:1:1                   | 350                                | 0.5                                                  | 16                                                   | 0.7                           | 0.7 | 0.7 | 7                                      |
| CPT11B8  | 1:1:1                   | 500                                | 0.6                                                  | 20                                                   | 0.8                           | 0.8 | 0.8 | 9                                      |
| CPT11B9  | 1:1:1                   | 750                                | 0.6                                                  | 20                                                   | 0.8                           | 0.8 | 0.8 | 9                                      |
| CPT11B0  | 1:1:1                   | 1000                               | 0.7                                                  | 30                                                   | 0.9                           | 0.9 | 0.9 | 10                                     |
| CPT12B6  | 1:1:2                   | 100                                | 0.4                                                  | 9                                                    | 0.5                           | 0.5 | 1   | 4                                      |
| CPT12B7  | 1:1:2                   | 350                                | 0.5                                                  | 18                                                   | 0.7                           | 0.7 | 1.4 | 7                                      |
| CPT12B8  | 1:1:2                   | 500                                | 0.6                                                  | 25                                                   | 0.8                           | 0.8 | 1.6 | 9                                      |
| CPT12B9  | 1:1:2                   | 750                                | 0.6                                                  | 25                                                   | 0.8                           | 0.8 | 1.6 | 9                                      |
| CPT12B0  | 1:1:2                   | 1000                               | 0.7                                                  | 30                                                   | 0.9                           | 0.9 | 1.8 | 10                                     |
| CPT13B6  | 1:1:3                   | 100                                | 0.4                                                  | 9                                                    | 0.5                           | 0.5 | 1.5 | 4                                      |
| CPT13B7  | 1:1:3                   | 350                                | 0.5                                                  | 22                                                   | 0.7                           | 0.7 | 2.1 | 7                                      |
| CPT13B8  | 1:1:3                   | 500                                | 0.6                                                  | 25                                                   | 0.8                           | 0.8 | 2.4 | 9                                      |
| CPT13B9  | 1:1:3                   | 750                                | 0.6                                                  | 25                                                   | 0.8                           | 0.8 | 2.4 | 9                                      |
| CPT13B0  | 1:1:3                   | 1000                               | 0.7                                                  | 30                                                   | 0.9                           | 0.9 | 2.7 | 10                                     |

#### RECOMMENDED REFLOW SOLDERING CONDITIONS

