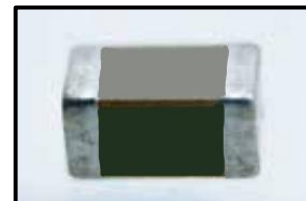


### ≠ Features

- Excellent volumetric efficiency and stability of capacitance with temperature
- High voltage capacitors
- Special internal electrode design for high voltage rating
- Surface mount suitable for wave and reflow soldering
- High Reliability
- RoHS Compliant

### ≠ Applications

- LAN/WLAN interface
- Back-lighting inverter, DC-DC converters
- Ballast, Modems and Power Supplies



### ≠ Part Numbering

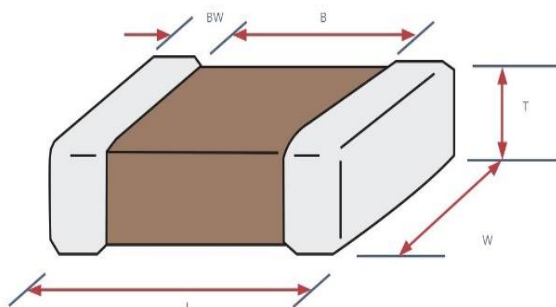
| PPI-CHV    | 1210      | N                                    | 1K0                               | 101                                                        | J                                          | C                              | T                            |
|------------|-----------|--------------------------------------|-----------------------------------|------------------------------------------------------------|--------------------------------------------|--------------------------------|------------------------------|
| PPI Series | Case Size | Termination Code<br><i>See Table</i> | Rated Voltage<br><i>See Table</i> | Capacitor Code<br>101 = 100pF<br>100 = 10pF<br>1R0 = 1.0pF | Capacitance Tolerance:<br><i>See Table</i> | Dielectric<br><i>See Table</i> | Packaging<br>T = Tape & Reel |



### ≠ Dimensions (mm)

| Dimensions (mm) |             |             |   |         |          |
|-----------------|-------------|-------------|---|---------|----------|
| Size            | L           | W           | T | B (min) | BW (min) |
| 1210            | 3.20 ± 0.30 | 2.50 ± 0.20 | * | 1.60    | 0.30     |

\* See Capacitance Range charts on following pages



Please note that the contents of this document are subject to change at any time at PPI's sole discretion. The most up-to-date version of this document is available at [www.passiveplus.com](http://www.passiveplus.com)



## ≠ Terminations

| Code | Description                           |
|------|---------------------------------------|
| F    | Silver Palladium                      |
| N    | Nickel Barrier                        |
| A    | High Leach Resistant Silver Palladium |

## ≠ Rated Voltages

| Code | Voltage | Code | Voltage |
|------|---------|------|---------|
| 250  | 250V    | 1K0  | 1KV     |
| 500  | 500V    | 1K5  | 1.5KV   |
| 630  | 630V    | 2K0  | 2KV     |

## ≠ Capacitance Codes

| Cap Code | Value | Cap Code | Value | Cap Code | Value | Cap Code | Value |
|----------|-------|----------|-------|----------|-------|----------|-------|
| 5R0      | 5.0pF | 101      | 100pF | 103      | 10nF  | 105      | 1.0uF |
| 100      | 10pF  | 102      | 1.0nF | 104      | 100nF |          |       |

## ≠ Capacitance Tolerances

| Code | B      | C       | F   | G   | J   | K    | M    |
|------|--------|---------|-----|-----|-----|------|------|
| Tol. | ±0.1pF | ±0.25pF | ±1% | ±2% | ±5% | ±10% | ±20% |

## ≠ Dielectric Codes

| Code | C   | X   |
|------|-----|-----|
|      | COG | X7R |

## ≠ Performance

| Dielectric Classification | C = COG / NP0 (Ultra Stable)                                                                              | X = X7R (Stable)                          |
|---------------------------|-----------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Operating Temperature     | -55°C to 125°C                                                                                            | -55°C to 125°C                            |
| Rated Voltage             | 250V – 1500V                                                                                              | 250V – 2000V                              |
| Temperature Coefficient   | ≤±30ppmi/°C, -55°C ~+125°C (EIA Class I)                                                                  | ≤±15ppmi/°C, -55°C ~+125°C (EIA Class II) |
| Dissipation Factor        | NP0: Q>1000                                                                                               | X7R: D.F. ≤2.5%                           |
| Insulation Resistance     | 10GΩ or 500/CΩ whichever is smaller                                                                       |                                           |
| Aging                     | NP0: 0%                                                                                                   | X7R: Typically, 1.0% per decade of time   |
| Dielectric Strength       | 100 ≤ V < 500V, 200% Rated Voltage<br>500 ≤ V < 1000V, 150% Rated Voltage<br>1000 ≤ V, 120% Rated Voltage |                                           |



CHV Series

**PPI-CHV1210****⚡ PPI-CHV SERIES: 1210**

| Dielectric    |      | COG |     |     |      |      | X7R |     |      |      |      |
|---------------|------|-----|-----|-----|------|------|-----|-----|------|------|------|
| T (max)       |      | 2.2 |     |     |      |      | 2.6 | 2.2 | 2.6  | 2.6  | 2.6  |
| Rated Voltage |      | 250 | 500 | 630 | 1000 | 1500 | 250 | 500 | 1000 | 1500 | 2000 |
| Cap Value     | Code |     |     |     |      |      |     |     |      |      |      |
| 2.0pF         | 2R0  |     |     |     |      |      |     |     |      |      |      |
| 3.3pF         | 3R3  |     |     |     |      |      |     |     |      |      |      |
| 3.9pF         | 3R9  |     |     |     |      |      |     |     |      |      |      |
| 5.0pF         | 5R0  |     |     |     |      |      |     |     |      |      |      |
| 8.2           | 8R2  |     |     |     |      |      |     |     |      |      |      |
| 10            | 100  |     |     |     |      |      |     |     |      |      |      |
| 12            | 120  |     |     |     |      |      |     |     |      |      |      |
| 15            | 150  |     |     |     |      |      |     |     |      |      |      |
| 18            | 180  |     |     |     |      |      |     |     |      |      |      |
| 22            | 220  |     |     |     |      |      |     |     |      |      |      |
| 27            | 270  |     |     |     |      |      |     |     |      |      |      |
| 33            | 330  |     |     |     |      |      |     |     |      |      |      |
| 39            | 390  |     |     |     |      |      |     |     |      |      |      |
| 47            | 470  |     |     |     |      |      |     |     |      |      |      |
| 56            | 560  |     |     |     |      |      |     |     |      |      |      |
| 68            | 680  |     |     |     |      |      |     |     |      |      |      |
| 82            | 820  |     |     |     |      |      |     |     |      |      |      |
| 100           | 101  |     |     |     |      |      |     |     |      |      |      |
| 120           | 121  |     |     |     |      |      |     |     |      |      |      |
| 150           | 151  |     |     |     |      |      |     |     |      |      |      |
| 180           | 181  |     |     |     |      |      |     |     |      |      |      |
| 220           | 221  |     |     |     |      |      |     |     |      |      |      |
| 270           | 271  |     |     |     |      |      |     |     |      |      |      |
| 330           | 331  |     |     |     |      |      |     |     |      |      |      |
| 390           | 391  |     |     |     |      |      |     |     |      |      |      |
| 470           | 471  |     |     |     |      |      |     |     |      |      |      |
| 560           | 561  |     |     |     |      |      |     |     |      |      |      |
| 680           | 681  |     |     |     |      |      |     |     |      |      |      |
| 820           | 821  |     |     |     |      |      |     |     |      |      |      |
| 1.0nF         | 102  |     |     |     |      |      |     |     |      |      |      |
| 1.2           | 122  |     |     |     |      |      |     |     |      |      |      |
| 1.5           | 152  |     |     |     |      |      |     |     |      |      |      |



CHV Series

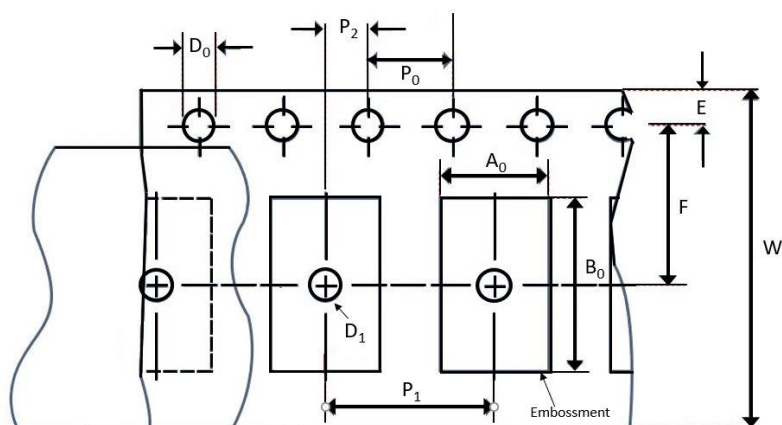
**PPI-CHV1210****⚡ PPI-CHV SERIES: 1210**

| Dielectric    |      | COG |     |     |      |      | X7R |     |      |      |      |
|---------------|------|-----|-----|-----|------|------|-----|-----|------|------|------|
| T (max)       |      | 2.2 |     |     |      |      | 2.6 | 2.2 | 2.6  | 2.6  | 2.6  |
| Rated Voltage |      | 250 | 500 | 630 | 1000 | 1500 | 250 | 500 | 1000 | 1500 | 2000 |
| Cap Value     | Code |     |     |     |      |      |     |     |      |      |      |
| 1.8           | 182  |     |     |     |      |      |     |     |      |      |      |
| 2.2           | 222  |     |     |     |      |      |     |     |      |      |      |
| 2.7           | 272  |     |     |     |      |      |     |     |      |      |      |
| 3.3           | 332  |     |     |     |      |      |     |     |      |      |      |
| 3.9           | 392  |     |     |     |      |      |     |     |      |      |      |
| 4.7           | 472  |     |     |     |      |      |     |     |      |      |      |
| 5.6           | 562  |     |     |     |      |      |     |     |      |      |      |
| 6.8           | 682  |     |     |     |      |      |     |     |      |      |      |
| 8.2           | 822  |     |     |     |      |      |     |     |      |      |      |
| 10nF          | 103  |     |     |     |      |      |     |     |      |      |      |
| 12            | 123  |     |     |     |      |      |     |     |      |      |      |
| 15            | 153  |     |     |     |      |      |     |     |      |      |      |
| 18            | 183  |     |     |     |      |      |     |     |      |      |      |
| 22            | 223  |     |     |     |      |      |     |     |      |      |      |
| 27            | 273  |     |     |     |      |      |     |     |      |      |      |
| 33            | 333  |     |     |     |      |      |     |     |      |      |      |
| 39            | 393  |     |     |     |      |      |     |     |      |      |      |
| 47            | 473  |     |     |     |      |      |     |     |      |      |      |
| 56            | 563  |     |     |     |      |      |     |     |      |      |      |
| 68            | 683  |     |     |     |      |      |     |     |      |      |      |
| 82            | 823  |     |     |     |      |      |     |     |      |      |      |
| 100           | 104  |     |     |     |      |      |     |     |      |      |      |
| 124           | 124  |     |     |     |      |      |     |     |      |      |      |
| 154           | 154  |     |     |     |      |      |     |     |      |      |      |
| 184           | 184  |     |     |     |      |      |     |     |      |      |      |
| 224           | 224  |     |     |     |      |      |     |     |      |      |      |
| 274           | 274  |     |     |     |      |      |     |     |      |      |      |
| 334           | 334  |     |     |     |      |      |     |     |      |      |      |
| 394           | 394  |     |     |     |      |      |     |     |      |      |      |
| 564           | 564  |     |     |     |      |      |     |     |      |      |      |
| 684           | 684  |     |     |     |      |      |     |     |      |      |      |
| 824           | 824  |     |     |     |      |      |     |     |      |      |      |
| 1.0uF         | 105  |     |     |     |      |      |     |     |      |      |      |
| 2.2           | 225  |     |     |     |      |      |     |     |      |      |      |

## Packaging: Embossed Plastic Carrier Tape

| Size | Qty per 7" Reel | Qty 10/13" Reel |
|------|-----------------|-----------------|
| 1210 | 1K, 2K, 3K      | 4K              |

## Tape & Reel Specifications



Unit: mm

| Size | W           | P <sub>0</sub> | P <sub>1</sub> | P <sub>2</sub> | D <sub>0</sub> | D <sub>1</sub> | E           | F           |
|------|-------------|----------------|----------------|----------------|----------------|----------------|-------------|-------------|
| 1210 | 8.00 ± 0.30 | 4.00 ± 0.10    | 4.00 ± 0.10    | 2.00 ± 0.05    | 1.50 ± 0.10    | 1.00 ± 0.10    | 1.75 ± 0.10 | 3.50 ± 0.05 |

A<sub>0</sub> B<sub>0</sub>

- Determined by component size to minimize rotation.
- The component cannot rotate more than 20° within the determined cavity.