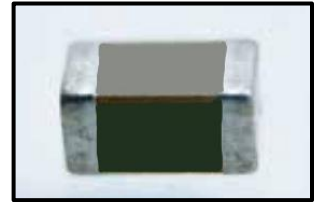


### ≠ Features

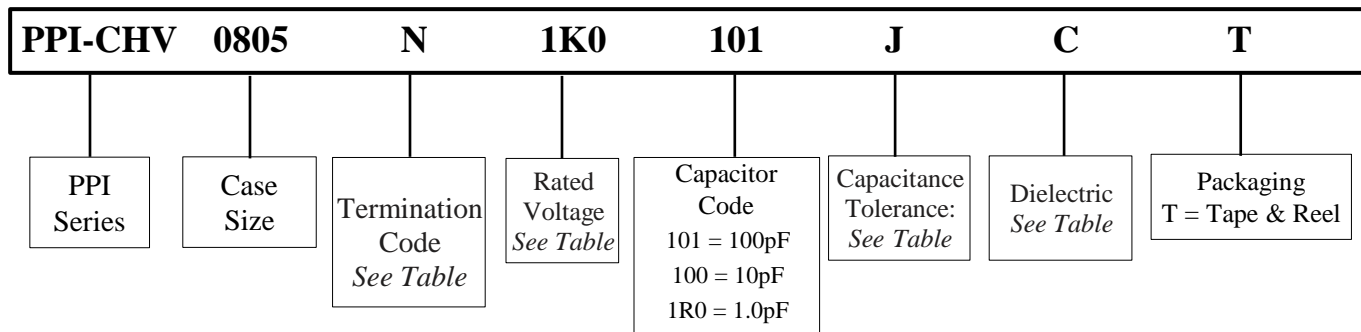
- Excellent volumetric efficiency and stability of capacitance with temperature
- High voltage capacitors
- Special internal electrode design for high voltage rating
- Surface mount suitable for wave and reflow soldering
- High Reliability
- RoHS Compliant

### ≠ Applications

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



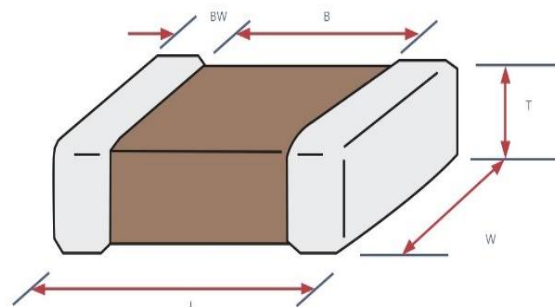
### ≠ Part Numbering



### ≠ Dimensions (mm)

| Dimensions (mm) |             |             |   |         |          |
|-----------------|-------------|-------------|---|---------|----------|
| Size            | L           | W           | T | B (min) | BW (min) |
| <b>0805</b>     | 2.00 ± 0.20 | 1.25 ± 0.20 | * | 0.70    | 0.20     |

\* See Capacitance Range charts on following pages



≠ Terminations

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

≠ Rated Voltages

| Code | Voltage |
|------|---------|
| 250  | 250V    |
| 500  | 500V    |
| 1K0  | 1KV     |

≠ Capacitance Codes

| Cap Code | Value | Cap Code | Value | Cap Code | Value |
|----------|-------|----------|-------|----------|-------|
| 1R0      | 1.0pF | 101      | 100pF | 103      | 10nF  |
| 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 – 500V   | 250V – 1000V                              |
| 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 |   |



**± PPI-CHV SERIES: 0805**

| Dielectric     |      | COG  |     | X7R |     |      |
|----------------|------|------|-----|-----|-----|------|
| T (max)        |      | 1.45 | 1.1 | 1.1 | 1.1 | 1.1  |
| Rated Voltage  |      | 250  | 500 | 250 | 500 | 1000 |
| Cap Value (pF) | Code |      |     |     |     |      |
| 1.0pF          | 1R0  |      |     |     |     |      |
| 1.3pF          | 1R3  |      |     |     |     |      |
| 1.5pF          | 1R5  |      |     |     |     |      |
| 1.8pF          | 1R8  |      |     |     |     |      |
| 2.0pF          | 2R0  |      |     |     |     |      |
| 2.2pF          | 2R2  |      |     |     |     |      |
| 2.4pF          | 2R4  |      |     |     |     |      |
| 2.5pF          | 2R5  |      |     |     |     |      |
| 2.7pF          | 2R7  |      |     |     |     |      |
| 2.0pF          | 3R0  |      |     |     |     |      |
| 3.3pF          | 3R3  |      |     |     |     |      |
| 3.6pF          | 3R6  |      |     |     |     |      |
| 3.9pF          | 3R9  |      |     |     |     |      |
| 4.0pF          | 4R0  |      |     |     |     |      |
| 4.7pF          | 4R7  |      |     |     |     |      |
| 5.0pF          | 5R0  |      |     |     |     |      |
| 5.1pF          | 5R1  |      |     |     |     |      |
| 5.6pF          | 5R6  |      |     |     |     |      |
| 6.0pF          | 6R0  |      |     |     |     |      |
| 6.8pF          | 6R8  |      |     |     |     |      |
| 7.0pF          | 7R0  |      |     |     |     |      |
| 7.5pF          | 7R5  |      |     |     |     |      |
| 8.0pF          | 8R0  |      |     |     |     |      |
| 8.2pF          | 8R2  |      |     |     |     |      |
| 9.0pF          | 9R0  |      |     |     |     |      |
| 9.1pF          | 9R1  |      |     |     |     |      |
| 10             | 100  |      |     |     |     |      |
| 12             | 120  |      |     |     |     |      |
| 13             | 130  |      |     |     |     |      |
| 15             | 150  |      |     |     |     |      |
| 16             | 160  |      |     |     |     |      |
| 18             | 180  |      |     |     |     |      |
| 20             | 200  |      |     |     |     |      |
| 22             | 220  |      |     |     |     |      |
| 24             | 240  |      |     |     |     |      |
| 27             | 270  |      |     |     |     |      |
| 30             | 300  |      |     |     |     |      |
| 33             | 330  |      |     |     |     |      |
| 36             | 360  |      |     |     |     |      |
| 39             | 390  |      |     |     |     |      |
| 43             | 430  |      |     |     |     |      |
| 47             | 470  |      |     |     |     |      |
| 51             | 510  |      |     |     |     |      |
| 56             | 560  |      |     |     |     |      |
| 62             | 620  |      |     |     |     |      |
| 68             | 680  |      |     |     |     |      |
| 75             | 750  |      |     |     |     |      |
| 82             | 820  |      |     |     |     |      |
| 91             | 910  |      |     |     |     |      |



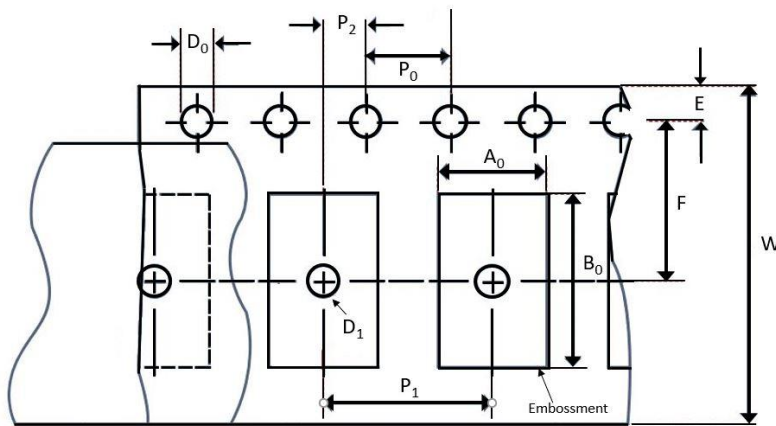
**± PPI-CHV SERIES: 0805**

| Dielectric     |      | COG  |     | X7R |     |      |
|----------------|------|------|-----|-----|-----|------|
| T (max)        |      | 1.45 | 1.1 | 1.1 | 1.1 | 1.1  |
| Rated Voltage  |      | 250  | 500 | 250 | 500 | 1000 |
| Cap Value (pF) | Code |      |     |     |     |      |
| 100            | 101  |      |     |     |     |      |
| 120            | 121  |      |     |     |     |      |
| 130            | 131  |      |     |     |     |      |
| 150            | 151  |      |     |     |     |      |
| 160            | 161  |      |     |     |     |      |
| 180            | 181  |      |     |     |     |      |
| 200            | 201  |      |     |     |     |      |
| 220            | 221  |      |     |     |     |      |
| 240            | 241  |      |     |     |     |      |
| 270            | 271  |      |     |     |     |      |
| 300            | 301  |      |     |     |     |      |
| 330            | 331  |      |     |     |     |      |
| 360            | 361  |      |     |     |     |      |
| 390            | 391  |      |     |     |     |      |
| 430            | 431  |      |     |     |     |      |
| 470            | 471  |      |     |     |     |      |
| 510            | 511  |      |     |     |     |      |
| 560            | 561  |      |     |     |     |      |
| 621            | 621  |      |     |     |     |      |
| 680            | 681  |      |     |     |     |      |
| 750            | 751  |      |     |     |     |      |
| 820            | 821  |      |     |     |     |      |
| 910            | 911  |      |     |     |     |      |
| 1.0nF          | 102  |      |     |     |     |      |
| 1.2            | 122  |      |     |     |     |      |
| 1.3            | 132  |      |     |     |     |      |
| 1.5            | 152  |      |     |     |     |      |
| 1.6            | 162  |      |     |     |     |      |
| 1.8            | 182  |      |     |     |     |      |
| 2.0            | 202  |      |     |     |     |      |
| 2.2            | 222  |      |     |     |     |      |
| 2.7            | 272  |      |     |     |     |      |
| 3.3            | 332  |      |     |     |     |      |
| 3.9            | 392  |      |     |     |     |      |
| 4.7            | 472  |      |     |     |     |      |
| 5.6            | 562  |      |     |     |     |      |
| 6.8            | 682  |      |     |     |     |      |
| 8.2            | 822  |      |     |     |     |      |
| 10             | 103  |      |     |     |     |      |
| 12             | 123  |      |     |     |     |      |
| 15             | 153  |      |     |     |     |      |
| 18             | 183  |      |     |     |     |      |
| 22             | 223  |      |     |     |     |      |
| 27             | 273  |      |     |     |     |      |
| 33             | 333  |      |     |     |     |      |
| 39             | 393  |      |     |     |     |      |
| 47             | 473  |      |     |     |     |      |
| 56             | 563  |      |     |     |     |      |
| 68             | 683  |      |     |     |     |      |

**≠ Packaging: Cardboard Carrier Tape**

| Size        | Qty per 7" Reel |
|-------------|-----------------|
| <b>0805</b> | 4K              |

**≠ Tape & Reel Specifications**



Unit: mm

| Size        | W               | $P_0$           | $P_1$           | $P_2$           | $D_0$           | $D_1$ | E               | F               |
|-------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------|-----------------|-----------------|
| <b>0805</b> | $8.00 \pm 0.30$ | $4.00 \pm 0.10$ | $4.00 \pm 0.10$ | $2.00 \pm 0.05$ | $1.55 \pm 0.10$ | *     | $1.75 \pm 0.10$ | $3.50 \pm 0.05$ |

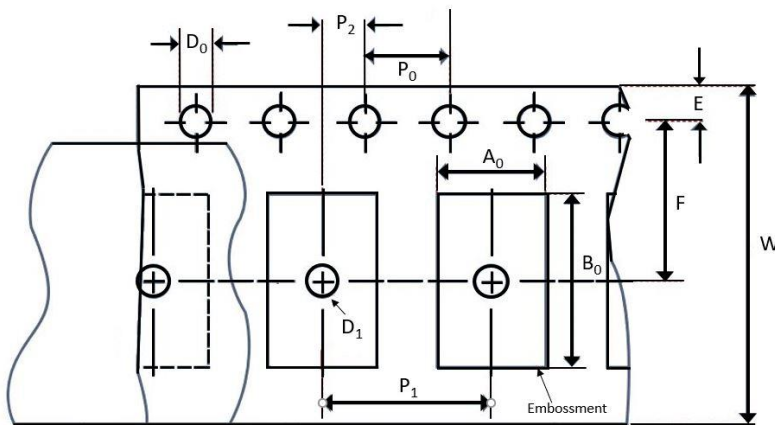
$A_0$   $B_0$

- Determined by component size to minimize rotation.
- The component cannot rotate more than  $20^\circ$  within the determined cavity.

**≠ Packaging: Embossed Plastic Carrier Tape**

| Size        | Qty per 7" Reel | Qty 10/13" Reel |
|-------------|-----------------|-----------------|
| <b>0805</b> | 2K, 3K          | 10K             |

**≠ Tape & Reel Specifications**



Unit: mm

| Size | W               | $P_0$           | $P_1$           | $P_2$           | $D_0$           | $D_1$           | E               | F               |
|------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| 0805 | $8.00 \pm 0.20$ | $4.00 \pm 0.10$ | $2.00 \pm 0.05$ | $2.00 \pm 0.05$ | $1.50 \pm 0.10$ | $1.00 \pm 0.10$ | $1.75 \pm 0.10$ | $3.50 \pm 0.05$ |

$A_0$   $B_0$

- Determined by component size to minimize rotation.
- The component cannot rotate more than  $20^\circ$  within the determined cavity.