

# Trimmer Capacitors CTZ2, CTZ3 Series



RoHS Compliant

## Features

- SMD small & thin package
- Wide capacitance range
- Washable and non-washable types available
- Plus slot (+) suitable for auto-adjustment

## Applications

- AV Equipment
- Cellular Phone
- Cordless Phone
- TCXO
- Keyless Entry

## How to Order

CTZ3 S - 05 A - W 1 - P F  
① ② ③ ④ ⑤ ⑥ ⑦ ⑧

### ① Series

|      |             |
|------|-------------|
| CTZ3 | CTZ3 Series |
| CTZ2 | CTZ2 Series |

### ② Type

|   |                          |
|---|--------------------------|
| S | Reflow non washable type |
| E | Reflow washable type     |

### ③ Maximum Capacitance

|    |      |    |      |
|----|------|----|------|
| 03 | 3pF  | 30 | 30pF |
| 05 | 5pF  | 40 | 40pF |
| 10 | 10pF | 50 | 50pF |
| 20 | 20pF |    |      |

### ④ Temperature Coefficient (ppm/ °C)

|   |          |   |          |
|---|----------|---|----------|
| A | NPO±500  | C | N750±500 |
| B | N400±500 |   |          |

### ⑤ Packaging

|   |                    |
|---|--------------------|
| W | W Direction Taping |
| X | X Direction Taping |
| B | Bulk               |

### ⑥ Taping Quantity (Unit: pcs.)

|   |       |             |
|---|-------|-------------|
| 1 | 1,000 | CTZ3 Series |
| 2 | 2,000 | CTZ2 Series |

### ⑦ Pin Head Type

|   |           |
|---|-----------|
| P | Plus Slot |
|---|-----------|

### ⑧ Lead Specification

|   |                                  |
|---|----------------------------------|
| F | Lead Forming Type<br>(CTZ3 type) |
|---|----------------------------------|

\* ⑧ is denoted by space for CTZ2 series.

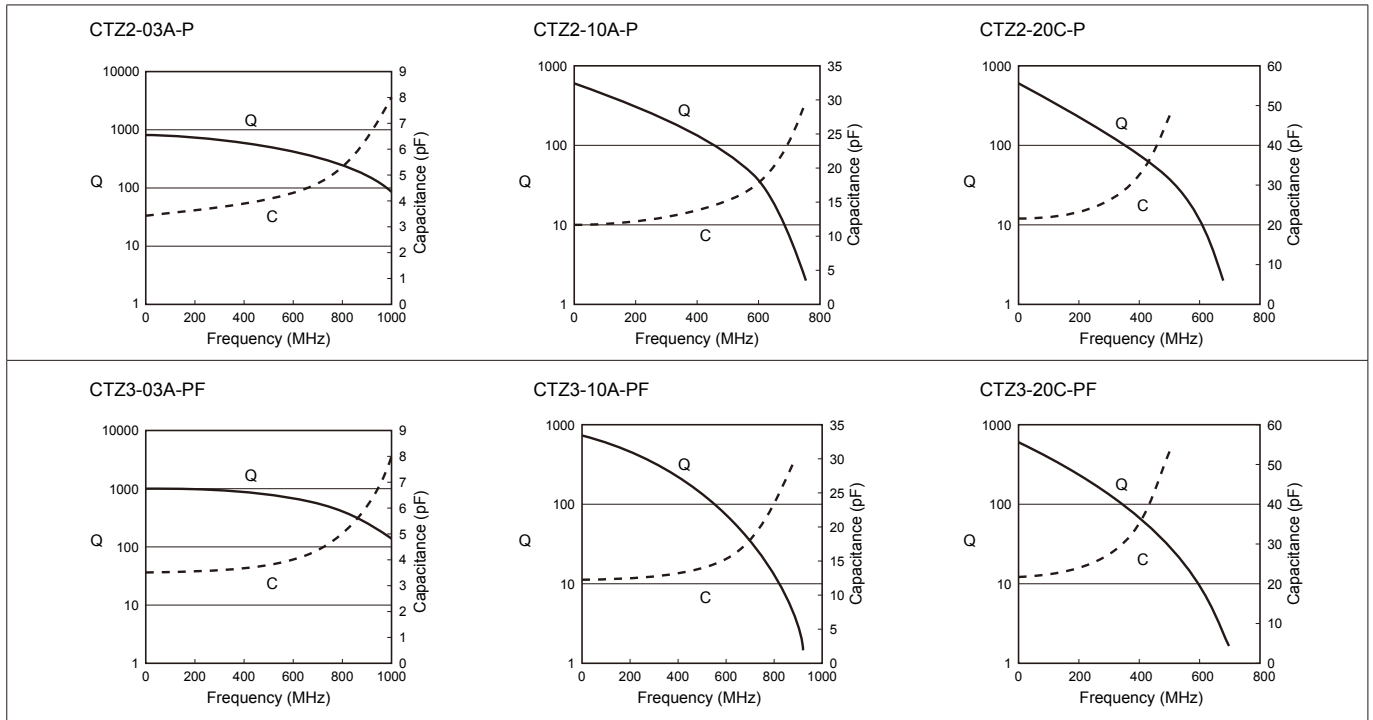
## Specifications

| Part No.     | Capacitance (pF)                   |                                    | Q<br>1±0.1<br>(MHz) | Temperature<br>Coefficient<br>(ppm/ °C) |          |
|--------------|------------------------------------|------------------------------------|---------------------|---|----------|
|              | C max.                             | C min.                             |                     |   |          |
| CTZ2<br>S/ E | 03A                                | 3 <sup>+100%</sup> <sub>-0%</sub>  | 2.0 max.            | ≥150                                    | NPO±500  |
|              | 05A                                | 5 <sup>+100%</sup> <sub>-0%</sub>  | 3.0 max.            | ≥150                                    | NPO±500  |
|              | 10A                                | 10 <sup>+100%</sup> <sub>-0%</sub> | 3.0 max.            | ≥150                                    | NPO±500  |
|              | 20C                                | 20 <sup>+100%</sup> <sub>-0%</sub> | 5.5 max.            | ≥150                                    | N750±500 |
| CTZ3<br>S/ E | 03A                                | 3 <sup>+100%</sup> <sub>-0%</sub>  | 1.0 max.            | ≥300                                    | NPO±500  |
|              | 05A                                | 5 <sup>+100%</sup> <sub>-0%</sub>  | 1.5 max.            | ≥300                                    | NPO±500  |
|              | 10A                                | 10 <sup>+100%</sup> <sub>-0%</sub> | 2.5 max.            | ≥300                                    | NPO±500  |
|              | 10B                                | 10 <sup>+100%</sup> <sub>-0%</sub> | 1.5 max.            | ≥300                                    | N400±500 |
|              | 20C                                | 20 <sup>+100%</sup> <sub>-0%</sub> | 4.5 max.            | ≥300                                    | N750±500 |
|              | 30C                                | 30 <sup>+100%</sup> <sub>-0%</sub> | 4.5 max.            | ≥300                                    | N750±500 |
| 40C          | 40 <sup>+100%</sup> <sub>-0%</sub> | 4.5 max.                           | ≥300                | N750±500                                |          |
| 50C          | 50 <sup>+100%</sup> <sub>-0%</sub> | 4.5 max.                           | ≥200                | N750±500                                |          |

| Series   | Rated Voltage (V-DC) | Temperature Range (°C) | Insulation Resistance (MΩ) | Torque (g·cm) |
|----------|----------------------|------------------------|----------------------------|---------------|
| CTZ2S/ E | 25                   | -40 to +85             | ≥10 <sup>4</sup>           | 10 to 150     |
| CTZ3S/ E | 25                   | -40 to +85             | ≥10 <sup>4</sup>           | 10 to 150     |

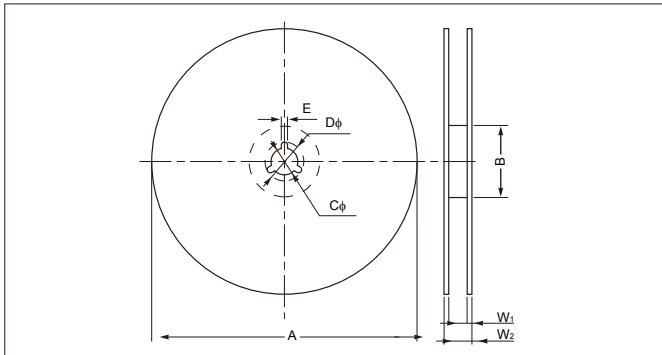
| Series      | Dimensions (Unit: mm) | Recommended Land Pattern (Unit: mm) |
|-------------|-----------------------|-------------------------------------|
| CTZ2 Series |                       |                                     |
| CTZ3 Series |                       |                                     |

## Frequency Characteristics



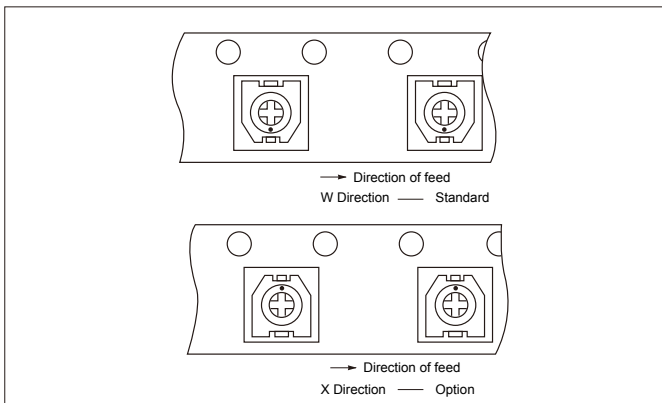
## Tape & Reel

### • Reel



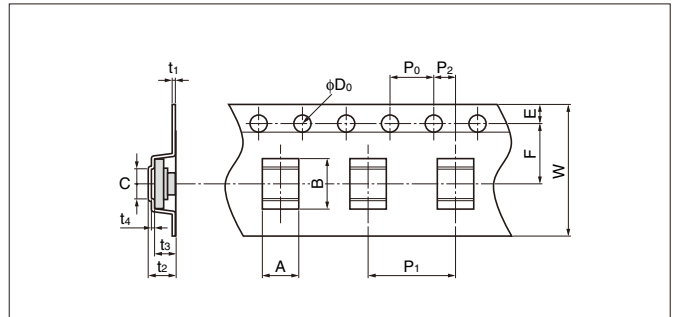
### • Tape Loading

- W Direction — Standard
- X Direction — Option



### • Carrier Tape

(Unit: mm)



|                       | CTZ2 Series                          | CTZ3 Series                         |
|-----------------------|--------------------------------------|-------------------------------------|
| <b>A</b>              | 2.7±0.1                              | 3.35±0.1                            |
| <b>B</b>              | 3.2±0.1                              | 4.6 <sup>+0.2</sup> <sub>-0.0</sub> |
| <b>W</b>              | 12.0±0.3                             | 12.0±0.3                            |
| <b>F</b>              | 5.5±0.05                             | 5.5±0.05                            |
| <b>E</b>              | 1.75±0.1                             | 1.75±0.1                            |
| <b>P<sub>0</sub></b>  | 4.0±0.1                              | 4.0±0.1                             |
| <b>P<sub>1</sub></b>  | 4.0±0.1                              | 8.0±0.1                             |
| <b>P<sub>2</sub></b>  | 2.0±0.05                             | 2.0±0.05                            |
| <b>φD<sub>0</sub></b> | 1.5 <sup>+0.1</sup> <sub>-0.0</sub>  | 1.5 <sup>+0.1</sup> <sub>-0.0</sub> |
| <b>t<sub>1</sub></b>  | 0.3±0.1                              | 0.3±0.1                             |
| <b>t<sub>2</sub></b>  | 1.9±0.1                              | 2.5±0.1                             |
| <b>t<sub>3</sub></b>  | 1.3 <sup>+0.15</sup> <sub>-0.0</sub> | 2.0±0.1                             |
| <b>t<sub>4</sub></b>  | 0.3±0.1                              | 0.3±0.05                            |
| <b>C</b>              | 2.06±0.1                             | 2.7±0.1                             |

(Unit: mm)

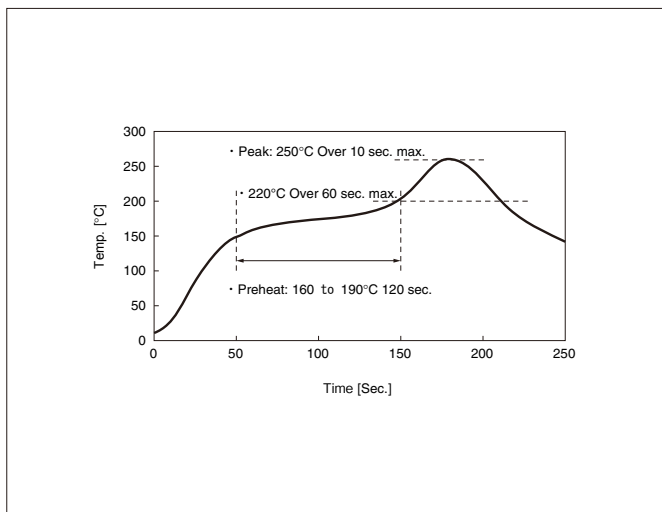
|                                 | A                                   | B                                    | C        | D        | E       | W <sub>1</sub> | W <sub>2</sub> |
|---------------------------------|-------------------------------------|--------------------------------------|----------|----------|---------|----------------|----------------|
| <b>CTZ2 Series (2,000 pcs.)</b> | 180 <sup>+0.0</sup> <sub>-3.0</sub> | 60.0 <sup>+1.0</sup> <sub>-0.0</sub> | 13.0±0.2 | 21.0±0.8 | 2.0±0.5 | 13.0±0.3       | 15.4±1.0       |
| <b>CTZ3 Series (1,000 pcs.)</b> |                                     |                                      |          |          |         |                |                |

## PCB Mounting

- When our recommended landpattern is not used, please check mounting alignment.
- When mounting on PCB, please do not apply pressure to trimmer capacitors over 500g.f.

## Soldering

- When using soldering iron, adjust iron tip to 280°C max.
- Please find below recommended solder profile.



## Storage Conditions

- 1) Do not store components in corrosive condition such as chloric or sulfuric environment.
- 2) Components before use should be stored under the condition with temperature of 5 to 40 degrees Celsius and humidity of 20 to 70% RH.
- 3) It is recommended to use components within 6 months of incoming.
- 4) Do not open the minimal package until right before the use.
- 5) Do not store components under direct sunlight or dewy environment.

## Screwdrivers

Please use proper screwdriver for adjustment of the capacitor. Kyocera can supply suitable ceramic type screwdrivers specially designed for the use of CTZ series. Please contact your local AVX office for the details.

### CTZ3

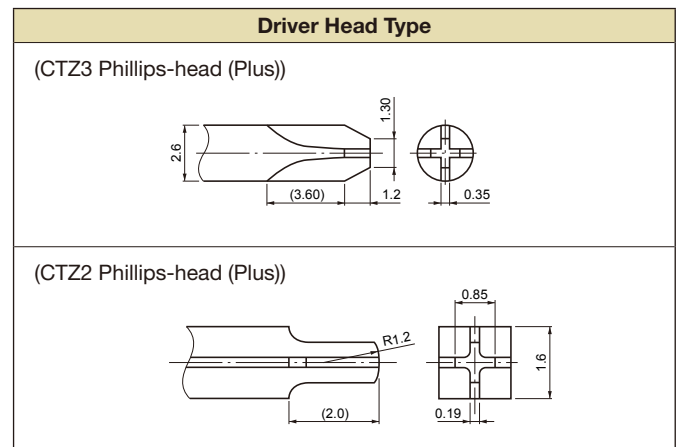
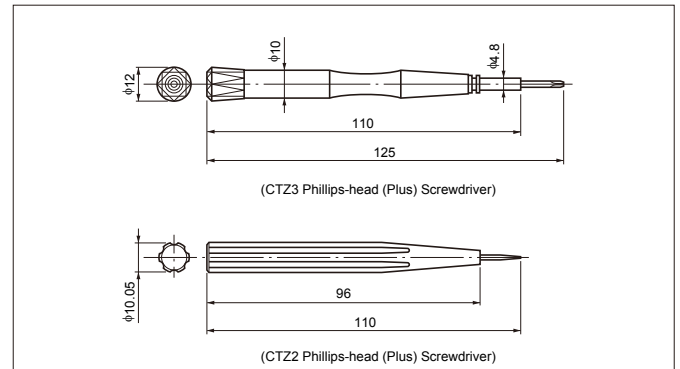
Pin Head

⊕: CTZ3 Phillips-head (Plus) Ceramic Screwdriver

### CTZ2



Pin Head

⊕: CTZ2 Phillips-head (Plus) Ceramic Screwdriver



## Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

-  [View CTZ3S-10A-X1-PF on WIN SOURCE](#)
-  [AVX Corporation Information](#)

## Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management