



element14

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[CTZ3E-20C-W1-PF](#) [CTZ3E-05A-W1-PF](#) [CTZ3E-03A-W1-PF](#) [CTZ3E-30C-W1-PF](#) [CTZ2E-05C-W2-P](#)  
[CTZ2E-10A-W2-P](#) [CTZ2E-20C-W2-P](#) [CTZ3E-10B-W1-PF](#) [CTZ3E-40C-W1-PF](#)

**EN**  
This Datasheet is presented by  
the manufacturer

**DE**  
Dieses Datenblatt wird vom  
Hersteller bereitgestellt

**FR**  
Cette fiche technique est  
présentée par le fabricant



**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

<b>CTZ3</b>	CTZ3 Series
<b>CTZ2</b>	CTZ2 Series

② Type

<b>S</b>	Reflow non washable type
<b>E</b>	Reflow washable type

③ Maximum Capacitance

<b>03</b>	3pF	<b>30</b>	30pF
<b>05</b>	5pF	<b>40</b>	40pF
<b>10</b>	10pF	<b>50</b>	50pF
<b>20</b>	20pF		

④ Temperature Coefficient (ppm/°C)

<b>A</b>	NPO±500	<b>C</b>	N750±500
<b>B</b>	N400±500		

⑤ Packaging

<b>W</b>	W Direction Taping
<b>X</b>	X Direction Taping
<b>B</b>	Bulk

⑥ Taping Quantity (Unit : pcs)

<b>1</b>	1,000	CTZ3 Series
<b>2</b>	2,000	CTZ2 Series

⑦ Pin Head Type

<b>P</b>	Plus Slot
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⑧ Lead Specification

<b>F</b>	Lead Forming Type (CTZ3 type)
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\* ⑧ is denoted by space for CTZ2 series.

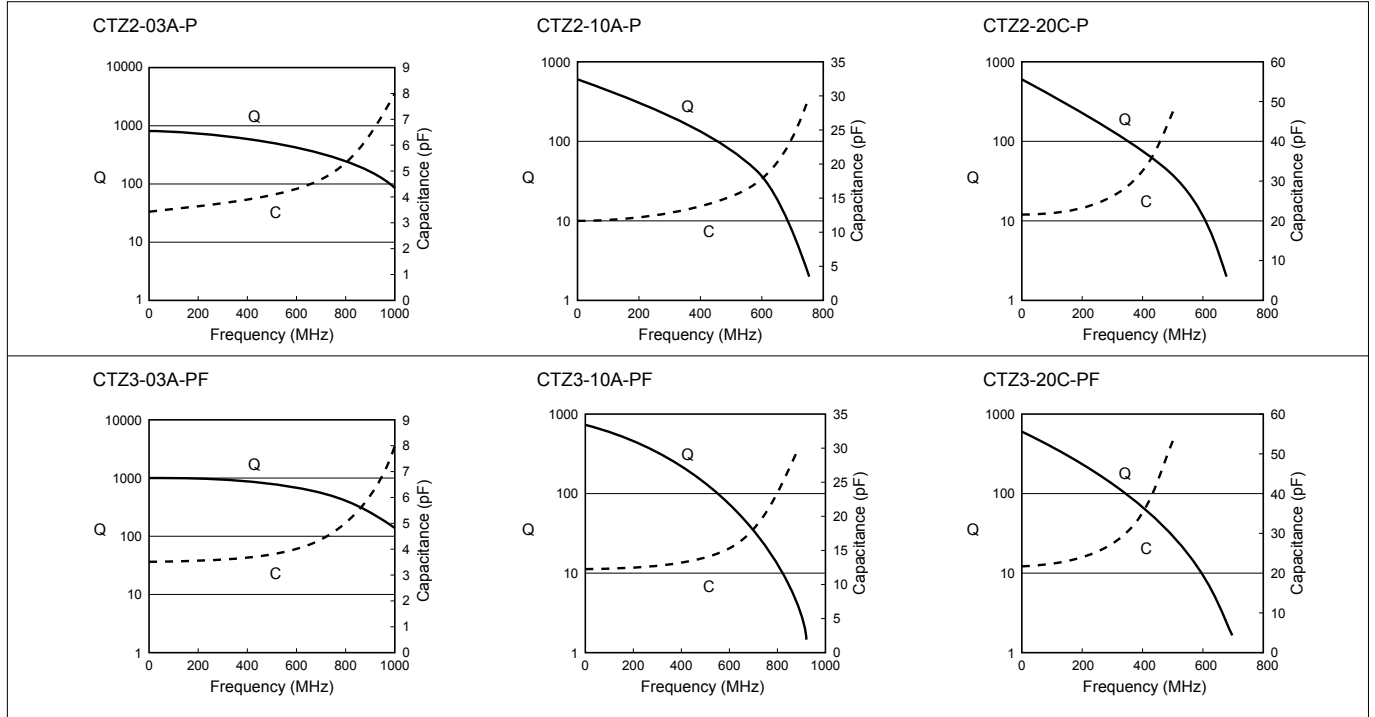
**Specifications**

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

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

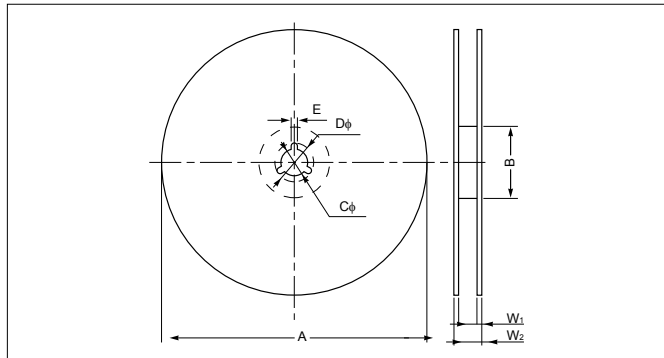
Series	Dimensions (Unit : mm)	Recommended Land Pattern (Unit: mm)
<b>CTZ2 Series</b>		
<b>CTZ3 Series</b>		

**Frequency Characteristics**



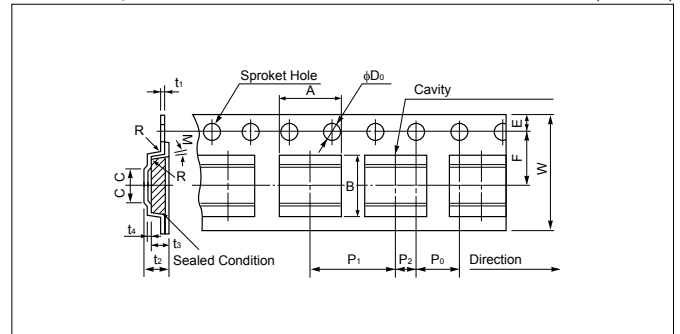
**Tape & Reel**

• Reel



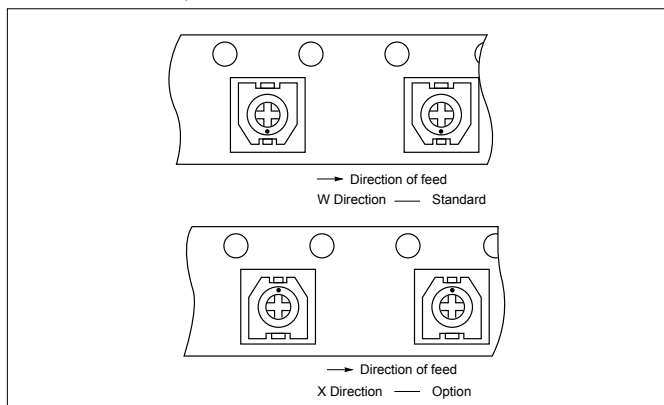
• Carrier Tape

(Unit : mm)



• Tape Loading

W Direction — Standard  
X Direction — Option



	<b>CTZ2 Series</b>	<b>CTZ3 Series</b>
<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>P0</b>	4.0±0.1	4.0±0.1
<b>P1</b>	4.0±0.1	8.0±0.1
<b>P2</b>	2.0±0.05	2.0±0.05
<b>φD0</b>	1.5 <sup>-0.1</sup> <sub>-0.0</sub>	1.5 <sup>-0.0</sup> <sub>-0.0</sub>
<b>t1</b>	0.3±0.1	0.3±0.1
<b>t2</b>	1.9±0.1	2.5±0.1
<b>t3</b>	1.3 <sup>+0.15</sup> <sub>-0.0</sub>	2.0±0.1
<b>t4</b>	0.3±0.1	0.3±0.05
<b>C</b>	2.06±0.1	2.7±0.1

(Unit : mm)

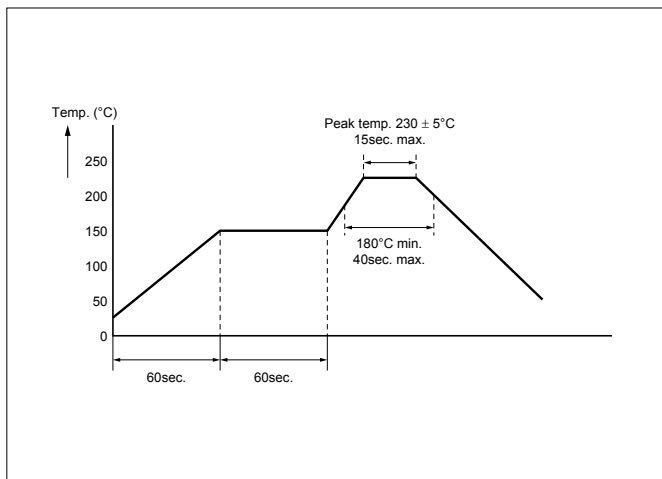
	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>W<sub>1</sub></b>	<b>W<sub>2</sub></b>
<b>CTZ2 Series (2,000pcs.)</b>	180 <sup>+0.0</sup> <sub>-3.0</sub>	60.0 <sup>+1.0</sup> <sub>-0.0</sub>	13.0±0.2	21.0±0.8	2.0±0.5	13.0±0.3	15.4±1.0
<b>CTZ3 Series (1,000pcs.)</b>							

## 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.

CTZ-3

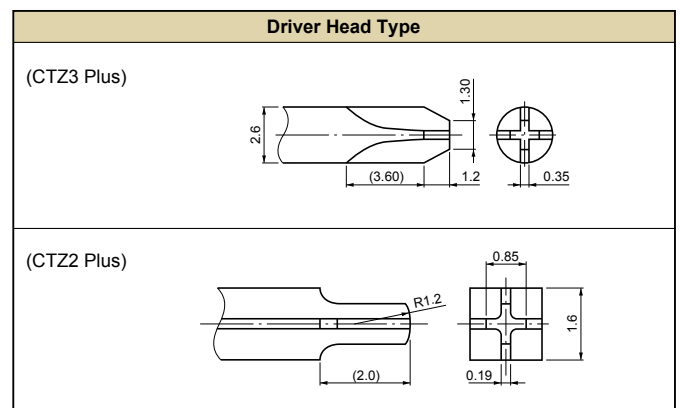
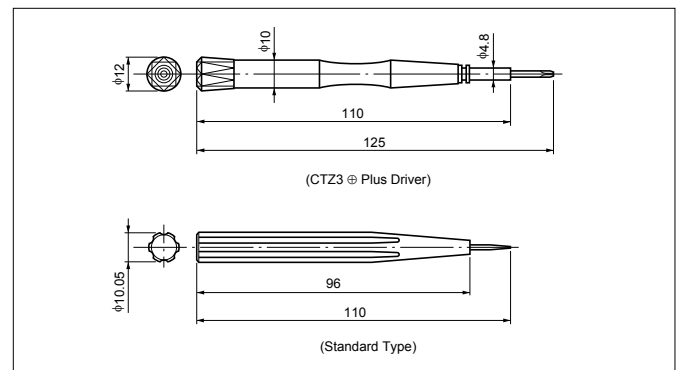
Pin Head

⊕: CTZ-3 Plus Ceramic Driver

CTZ-2

Pin Head

⊕: CTZ-2 Plus Ceramic Driver





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