

Trimmer Capacitors



CTZ2, CTZ3 Series



FEATURES

- SMD small & thin package
- Wide capacitance range
- CTZ3S-A series-small setting drift
- Washable and non-washable types available
- Plus slot(+) suitable for auto-adjustment (Minus slot is also available)
- CTZ3V series
 - Smaller setting drift
 - Low profile (H=1.7mm max.)
 - Max capacitance value tolerance +50% -0%
 - Easy capacitance value adjustment

APPLICATIONS

- AV equipment
- Cellular phone
- Cordless phone
- Pager
- TCXO
- Keyless Entry

HOW TO ORDER

CTZ3 S - 05 A - W 1 - P F

Lead Specification

F = Lead Forming Type (CTZ3 type)

Pin Head Type

P = Plus slot

Taping Quantity (Unit = pcs)

1 = 1,000 2 = 2,000 5 = 5,000

Packaging

B = Bulk

W = W Direction Taping refer to pg. 65

X = X Direction Taping refer to pg. 65

Temperature Coefficient (ppm/°C)

A = NP0±500 B = N400±500

C = N750±500

Maximum Capacitance

03 = 3pF 20 = 20pF 50 = 50pF

05 = 5pF 30 = 30pF

10 = 10pF 40 = 40pF

Type

S • V = Reflow non-washable type

E = Reflow washable type

Series

CTZ2 = 3.0mmx2.5mmx1.3mm max.

CTZ3 = 4.5mmx3.2mmx1.8mm max.

*No code for standard parts

SPECIFICATIONS

Part Number	Capacitance (pF)			Q 1±0.1 (MHz)	Temperature Coefficient (ppm/°C)	
	Max. Value -0%+100%	Min. Value				
		Standard	A Type			
CTZ2 S/E	03A	3	2.0	—	>150	NP0±500
	05A	5	3.0	—	>150	NP0±500
	10A	10	3.0	—	>150	NP0±500
	20C	20	5.5	—	>150	N750±500
CTZ3 S/E	03A	3	1.0	1.5	>300	NP0±500
	05A	5	1.5	2.0	>300	NP0±500
	10A	10	2.5	4.0	>300	NP0±500
	10B	10	1.5	2.0	>300	N400±500
	20C	20	4.5	7.5	>300	N750±500
	30C	30	4.5	—	>300	N750±500
	40C	40	4.5	—	>300	N750±500
50C	50	4.5	—	>200	N750±500	

*Standard Specification = Rated Voltage (VDC) 25
 Temperature Range (°C) -40 to +85
 Insulation Resistance (MΩ) > 10⁴
 Torque (g-cm) 10 to 150

Part Number	Capacitance (pF)		Q 1±0.1 (MHz)	Temperature Coefficient (ppm/°C)	
	Max. Value -0%+50%	Min. Value			
CTZ3V	05A	5	2.5	>500	NP0±500
	10A	10	3.0	>500	NP0±500
	20C	20	5.0	>300	N1200±500

*Standard Specification = Rated Voltage (VDC) 100
 Temperature Range (°C) -40 to +85
 Insulation Resistance (MΩ) > 10⁴
 Torque (g-cm) 10 to 150

Trimmer Capacitors

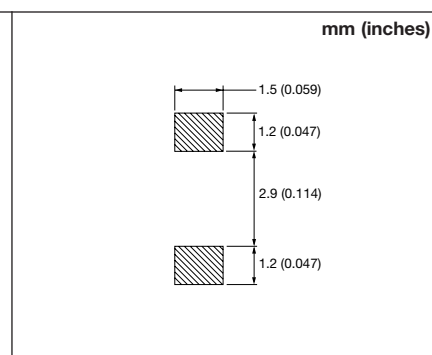
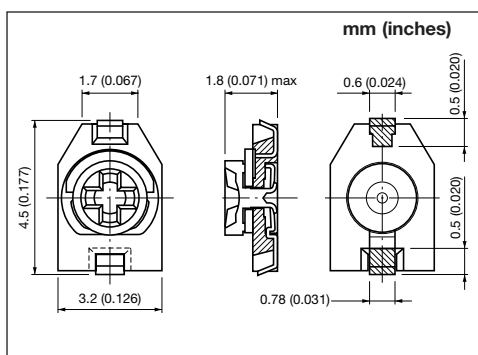
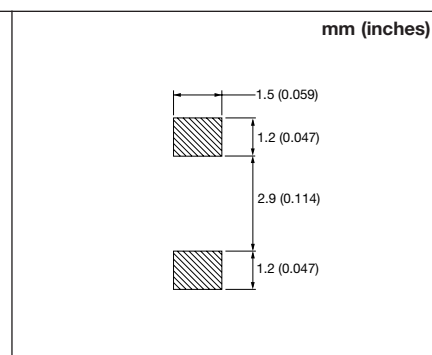
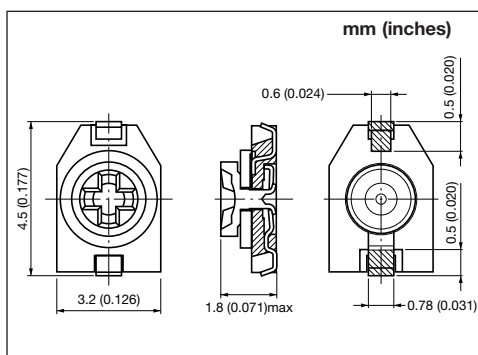
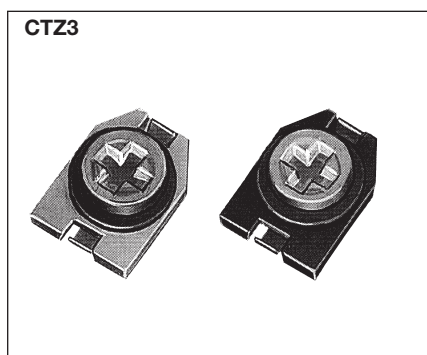
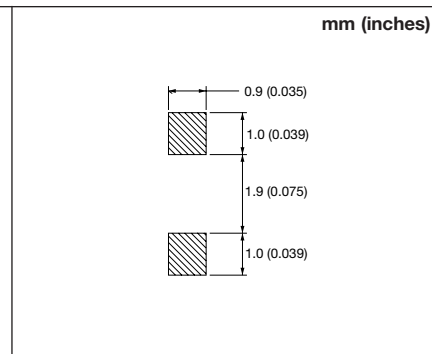
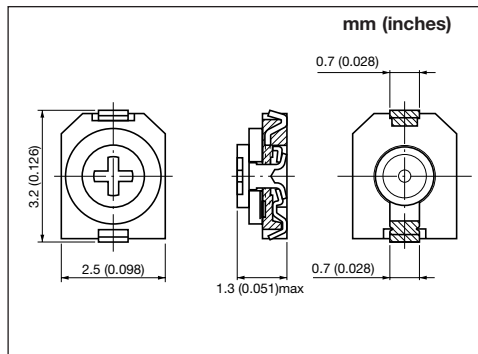


CTZ2, CTZ3 Series

SERIES

Dimensions

Recommended Land Pattern



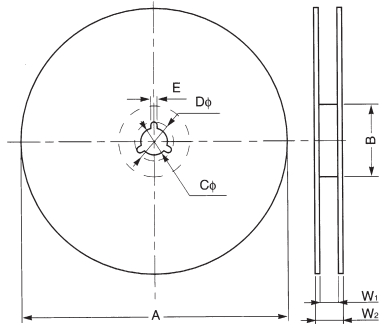
Trimmer Capacitors



CTZ2, CTZ3 Series

TAPE AND REEL

millimeters (inches)

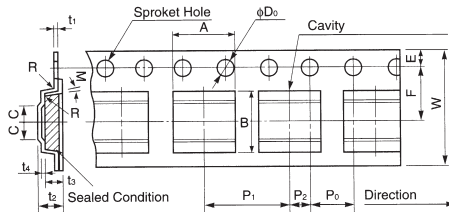


	A	B	C	D	E	W ₁	W ₂
CTZ2 Series (2,000 pcs)	180 ^{+0.00} _{-3.00} (7.087 ^{+0.000} _{-0.118})	60.0 ^{+1.00} _{-0.60} (2.362 ^{+0.000} _{-0.118})	13.0±0.20 (0.512±0.008)	21.0±0.80 (0.827±0.031)	2.00±0.50 (0.079±0.020)	13.0±0.30 (0.512±0.012)	15.4±1.00 (0.606±0.039)
CTZ3 Series (1,000 pcs)							
CTZ3 Series (5,000 pcs)	420±2.00 (16.535±0.079)	80.0±2.00 (3.150±0.079)	13.0±0.50 (0.512±0.020)	21.0±1.00 (0.827±0.039)	2.00±0.50 (0.079±0.020)	14.0±2.00 (0.551±0.079)	16.0±2.50 (0.630±0.098)

CARRIER TAPE

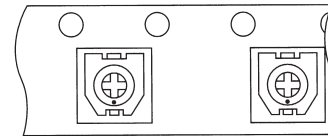
millimeters (inches)

TAPE LOADING

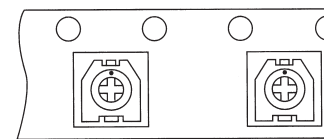


W Direction – Standard

X Direction – Option



→ Direction of feed
W Direction — Standard



→ Direction of feed
X Direction — Option

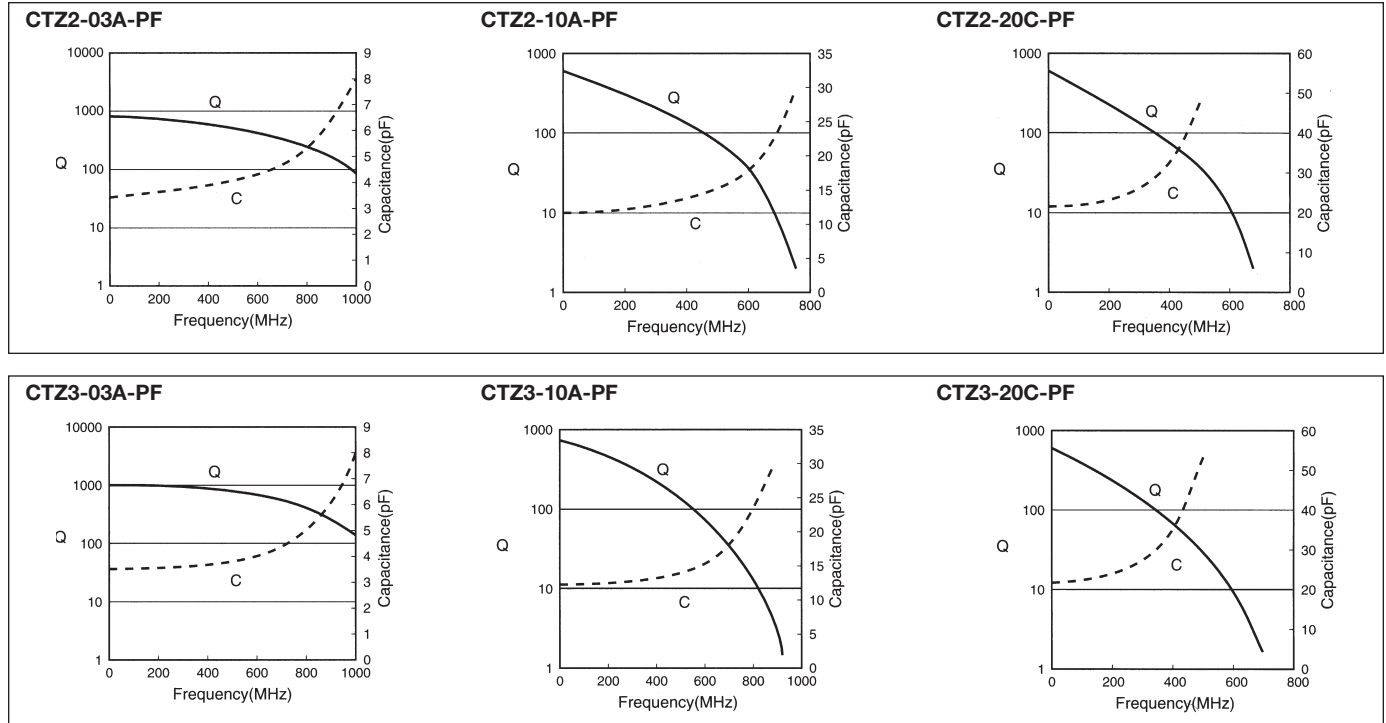
Code	CTZ2 Series		CTZ3 Series	
	Standard	Reverse	Standard	Reverse
A	2.70±0.10 (0.106±0.004)	2.90±0.10 (0.114±0.004)	3.35±0.10 (0.132±0.004)	3.60±0.10 (0.142±0.004)
B	3.20±0.10 (0.126±0.004)	4.90±0.10 (0.193±0.004)	4.60 ^{+0.20} _{-0.00} (0.181 ^{+0.008} _{-0.000})	7.2±0.10 (0.283±0.004)
W	12.0±0.30 (0.472±0.012)	12.0±0.30 (0.472±0.012)	12.0±0.30 (0.472±0.012)	12.0±0.30 (0.472±0.012)
F	5.50±0.05 (0.217±0.002)	5.50±0.05 (0.217±0.002)	5.50±0.05 (0.217±0.002)	5.50±0.05 (0.217±0.002)
E	1.75±0.10 (0.069±0.004)	1.75±0.10 (0.069±0.004)	1.75±0.10 (0.069±0.004)	1.75±0.10 (0.069±0.004)
P0	4.00±0.10 (0.157±0.004)	4.00±0.10 (0.157±0.004)	4.00±0.10 (0.157±0.004)	4.00±0.10 (0.157±0.004)
P1	4.00±0.10 (0.157±0.004)	4.00±0.10 (0.157±0.004)	8.00±0.10 (0.315±0.004)	8.00±0.10 (0.315±0.004)
P2	2.00±0.05 (0.079±0.002)	2.00±0.05 (0.079±0.002)	2.00±0.05 (0.079±0.002)	2.00±0.05 (0.079±0.002)
øD0	1.50 ^{+0.10} _{-0.00} (0.059 ^{+0.004} _{-0.000})	1.50 ^{+0.10} _{-0.00} (0.059 ^{+0.004} _{-0.000})	1.50 ^{+0.10} _{-0.00} (0.059 ^{+0.004} _{-0.000})	1.50 ^{+0.10} _{-0.00} (0.059 ^{+0.004} _{-0.000})
t1	0.30±0.10 (0.012±0.004)	0.30±0.10 (0.012±0.004)	0.30±0.10 (0.012±0.004)	0.30±0.10 (0.012±0.004)
t2	2.00±0.10 (0.079±0.004)	1.50 ^{+0.20} _{-0.00} (0.059 ^{+0.008} _{-0.000})	2.50±0.10 (0.098±0.004)	2.20±0.10 (0.087±0.004)
t3	1.30 ^{+0.15} _{-0.00} (0.051 ^{+0.006} _{-0.000})	0.80 ^{+0.10} _{-0.00} (0.031 ^{+0.004} _{-0.000})	2.00±0.10 (0.079±0.004)	1.00±0.10 (0.039±0.004)
t4	0.30±0.10 (0.012±0.004)	—	0.30±0.05 (0.012±0.002)	—
C	2.06±0.10 (0.081±0.004)	2.50±0.10 (0.098±0.004)	2.70±0.10 (0.106±0.004)	2.00±0.10 (0.079±0.004)

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FREQUENCY CHARACTERISTICS

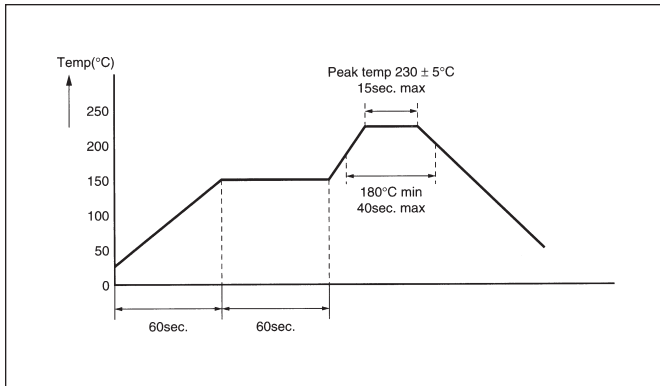


PCB MOUNTING

- Please use mounting hole suitable for lead dimension of trimmer capacitor.
- When our recommended land pattern 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.
- Please find below recommended solder profile.



STORAGE CONDITIONS

- Please do not store chlorine and sulfides in same atmosphere.
- Storage life 6 months.

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

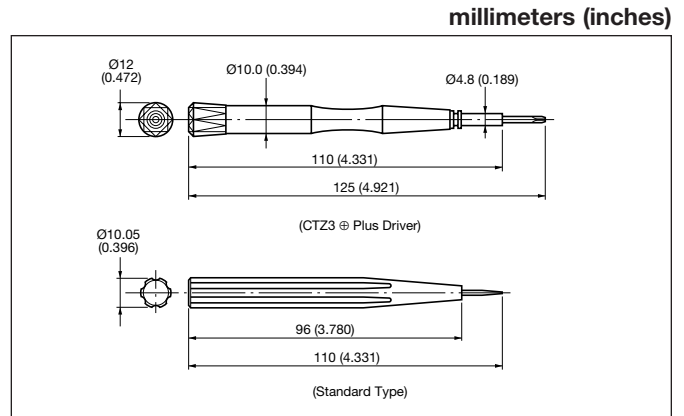
Pin Head

- ⊕ = CTZ-3 Plus Ceramic Driver
- ⊖ = CTZ-3 Minus Ceramic Driver

CTZ-2

Pin Head

- ⊕ = CTZ-2 Plus Ceramic Driver
- ⊖ = CTZ-2 Minus Ceramic Driver



DRIVER HEAD TYPE

	millimeters (inches)	
CTZ3 Plus 	CTZ2 Plus 	
CTZ3 Minus 	CTZ2 Minus 	