CC4,CT4 Series

- Miniature size,wide capacitance,tape and reel packaging available for auto-placement.
- Coating by epoxy resin,creates the excellent humidity resistance and preventsbody from damaging during aoldering and washing.

■ Brief

T.C	NOP/COG	X7R(B)	Y5V(Y/F)	Z5U(E)
Dielectrictype	Stable class Ⅰ dielectric	Stable class Ⅱ dielectric		
Electrical properties	With negligible dependence of electrical properties on temperature,voltage, frequency and time.	With predictable change of properties with temperature,voltage, frequency and time,this dielectric is ferroelectric and offers higher capcitance ranges than class Ⅰ	With high twist dielectric constant and greater variation of properties with temperature and test conditions,very high capacitance per unit volume.	
Application	Use in ciprcuits requiring stable performance.	Use as blocking,coupling,by--passing discriminating element.	Suited for by--passing and coupling application such as store power and memory circuit.	
Capacitance range	1pf ---10nF	100pf---5uF	1nF---14.7uF	
Operating temperature	0±30ppm/℃ -55℃~+125℃	±15% -55℃~+125℃	±30%~-80% -25℃~+85℃	±22%~-56% -10℃~+85℃

■ Electrical Properties Standard

Item	Test standard		
	NPO(N)	X7R(B)	Z5U,Y5V(Y)
Capacitance	Within the tolerance	Within the tolerance	Within the tolerance
Dissipaton Factor	≤0.15%	≤3.5%	≤5.0%(below 220nF) ≤7.0%(220nF~470nF) ≤7.0%(220nF~470nF)
Insulation Resistance	C≤10nF IR>10000MΩ ; C>10nF R.C>500ΩF	C≤25nF IR>4000MΩ ; C>25nF R.C>100ΩF	
Voltage Test	Voltage Test:2.5.rated voltage the charging current may not exceed 50mA.Duration of test:5 seconds.		
Test Conditon			
Frequency	1M HZ (C>1000pF,1KHz)	1M HZ	
Test Voltage	1.0VDC		0.5VDC
Test Voltage pf IR	The measuring voltage isequal to the rated voltage.The charging current may not exceed 50 mA.		
Test Environment Conditions	**Temperature:** 23±2℃, **Relatively Humidity:** Below 75%, **Notice:** If test were processed under No-Standard Test Environment Conditions,test result would he error.Please deposit testing capacitors under standard Test Environment Conditions for at least 20 mins,then start to test.		

■ Quality Item & Reliability Inspection

Item	Test specifications			Test methods
Solderability	Termination area shall be at least 75% covered with a new solder coating			The lead wire of a capacitor shall be dipped into a 25% methanol solution of rosin and then into molten solder of 235℃±5℃ for 2±0.5 seconds,in both cases the depth of dipping is up to about 2.5 to 3.0mm from the root of lead.
Resistance to soldering heat	There shall be no evidence of damage or flash over during the test and sign in focus.	T.C	△C/C≤	The lead wire shall be immersed into the melted solder of 260℃±5℃,up to about 2.5 to 3.0mm from the main body for 5±0.5 seconds and the specified items shall be measured after leaving for 24±2 hours.
		NPO	0.5% or 0.5pF	
		B	±10%	
	D.F,IR value are equal to original datas.	Y(F)/E	±20%	
Life test	Appearance	There shall be no evidence of damage or flash over during the test and sign in focus.		Condition: NPO / X7R / Y5V / Z5U Temperature: 125℃ / 85℃ Time: T=1000h Voltage: V=1.5Vr Recovery time: 24±1h
	Value variable	NPO:≤3%; X7R:≤20%; Y5V:≤30%		
	D.F	≤2 times of original data		
	IR	R.C>25Ω.F		

CT4-0805-Y-104-M-50-P
CC4-0805-Y-104-M-50-P

■ How To Order

CT4 (A) 0805 (B) Y (C) 104 (D) M (E) 50 (F) P (G)

A:

Product type	
Code	Type
CC4	Class Ⅰ dielectric radial leads
CT4	Class Ⅱ dielectric radial leads

B: Unit: Inches

Cmos chip size(L×W)	
Code	Chip size
0805	0.06×0.03/0.08×0.05
1206	0.12×0.06
1210	0.12×0.10
1812	0.18×0.12
2225	0.22×0.25
3035	0.30×0.35

C:

Temperature characteristics			
N	COG(NPO)	0±30ppm/℃	(-55~+125℃)
X	X7R	±15%	(-55~+125℃)
Y(F)	Y5V	+30%~-80%	(-25~+85℃)
Z	Z5U	+22%~-56%	(+10~+85℃)

D:

Capacitance
First two digits are significant third digit is is number of zeros.
For example:104=100000pf 5R6=5.6pF

E:

Tolerance	
B	±0.10pF
C	±0.25pF
D	±0.5pF
F	±1.0%
G	±2.0%
J	±5.0%
K	±10%
M	±20%
N	±30%
S	+50%~-20%
Z	+80%~-20%
P	+100%~-0%

B,C,D For C<10pF
NPO:B,C,D,F,G,J,K,M
X7R:K,M,S,Z
Y5V/Z5U:M,S,Z,P

F:

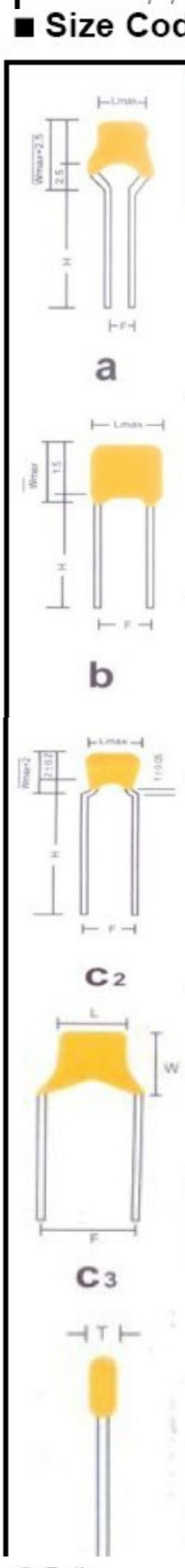
Rated voltage
The code meaning is same as capacitance For example: 25=25V 50=50V 100=100V

G:

Packaging style		
Tape & Reel	P	Ammo
	T	Reel
Bulk	F1	2.54mm
	F2	3.5mm
	F3	5.08mm

(F1,F2,F3 is pitch size)

■ Size Code,Capacitance And Voltage



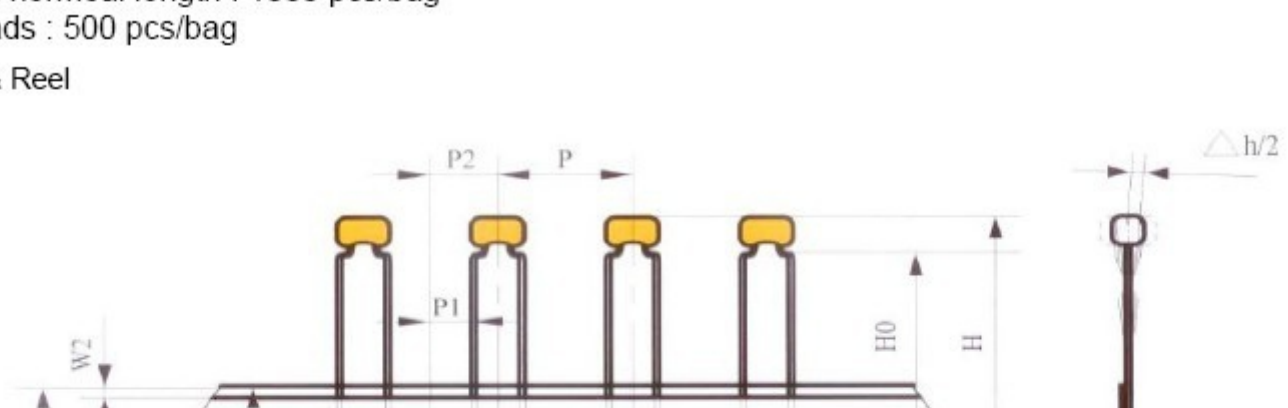
Size code	shape	Dimensions(mm) F(±0.5)	L max	W max	T max	Voltage	Capacitance(pF) NPO	X7R	Y5V
0805	b	2.54	4.2	3.8	3.0	25V	OR5~103	101~105	103~475
	C2	5.08				50V	OR5~103	101~474	103~105
	C3	5.08				100v	OR5~103	101~104	103~104
1206	a	2.54	5.0	4.5	3.5	25V	OR5~104	101~225	103~106
	b	3.5				50V	OR5~473	101~225	103~106
	C2	5.08				100v	OR5~473	101~105	103~155
1210	a	2.54	5.0	4.5	3.5	25V	OR5~104	101~106	103~106
	b	3.5				50V	OR5~473	101~475	103~106
	C2	5.08				100v	OR5~473	101~105	103~155
1812	b	5.08	7.0	6.0	4.0	25V	OR5~104	101~106	103~106
						50V	OR5~104	101~106	103~106
						100v	OR5~473	101~105	103~155
2225	b	5.5	10.0	9.0	4.5	25V	OR5~104	101~106	103~106
						50V	OR5~104	101~106	103~106
						100v	OR5~473	101~105	103~155
3035	b	7.5	12.0	10.0	4.5	25V	OR5~104	101~106	103~106
						50V	OR5~104	101~106	103~106
						100v	OR5~473	101~105	103~155

Notice1: Normal length of lead is 10mm(±1), it can be adjusted to 3.0~25mm as per customer's requested.
Notice2: The diameter of lead is ø0.5±0.05mm.

- Bulk

Leads in normoal length : 1000 pcs/bag
Long leads : 500 pcs/bag

- Tape & Reel



* Note: P1=3.85mm for F=5.0mm P1=5.1mm for F=2.5mm

Code	P	P0	P1	P2	d	H	W	W0	W1	W2	△h	H0	l	D	t
Dim	12.7	12.7	3.85 5.1	6.35	0.5	32.25	18.5	12	9	1.5	0	15-20	1.0	4.0	0.7
Tol	±0.2	±0.2	0.7	±1.3	±0.1	Max	±1	±1	±0.5	±1.5	±2	±0.5	Max	±0.2	Max

- Ammo packaging
- Reel packaging