

Radial Multilayer Ceramic Capacitors



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 prevents body from damaging during soldering and washing.



Brief

T.C	NOP/COG	X7R(B)	Y5V(Y/F)
Dielectric type	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 capacitance ranges than class I	With high twist dielectric, greater variation of temperature and temperature coefficient of capacitance per unit
Application	Use in circuits requiring stable performance.	Use as blocking, coupling, bypassing discriminating element.	Suited for bypassing such as store power
Capacitance range	1pf ---10nF	100pf---5uF	1nF---14.7uF
Operating temperature	0±30ppm/°C -55°C~+125°C	±15% -55°C~+125°C	±30%~-80% -25°C~+85°C

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°C±5°C 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.	The lead wire shall be immersed into the melted solder of 260°C±5°C, 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.
	D.F, IR value are equal to original datas.	
Life test	Appearance	There shall be no evidence of damage or flash over during the test and sign in focus.
	Value variable	NPO: ≤3%; X7R: ≤20%; Y5V: ≤30%
	D.F	≤2 times of original data
	IR	R.C>25Ω.F

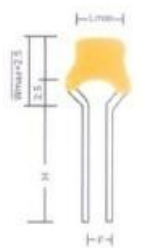
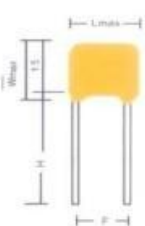
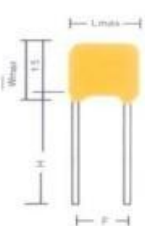
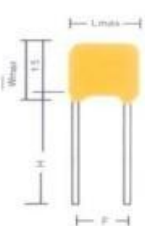
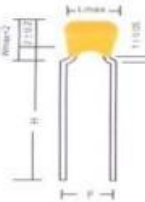


Electrical Properties Standard

Item	Test standard		
	NPO(N)	X7R(B)	Z5U, Y5V(Y)
Capacitance	Within the tolerance	Within the tolerance	Within the tolerance
Dissipation 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 Condition			
Frequency	1M HZ (C>1000pF, 1KHz)		1M HZ
Test Voltage	1.0VDC		0.5VDC
Test Voltage pf IR	The measuring voltage is equal to the rated voltage. The charging current may not exceed 50 mA.		
Test Environment Conditions	Temperature: 23±2°C, Relatively Humidity: Below 75%, Notice: If test were processed under No-Standard Test Environment Conditions, test result would be error. Please deposit testing capacitors under standard Test Environment Conditions for at least 20 mins, then start to test.		

KLS12-CT4-0805-Y-104-M-50-P

KLS12-CC4-0805-Y-104-M-50-P

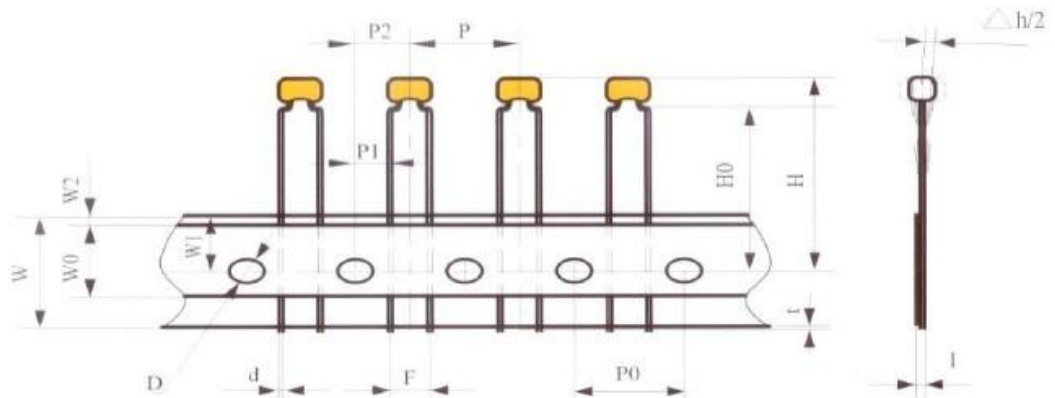
■ Size Code, Capacitance And Voltage

 a	Size code	shape	Dimensions(mm)				Voltage	Capacitance(pF)			
			F(±0.5)	L max	W max	T max		NPO	X7R	Y5V	
 b	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	
 b	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	
 b	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	1812	b	C2	5.08	7.0	6.0	4.0	100v	OR5~473	101~105	103~155
			25V	OR5~104				101~106	103~106		
			50V	OR5~104				101~106	103~106		
 C3	2225	b	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
 C3	3035	b	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 $\phi 0.5 \pm 0.05$ mm.

- Bulk
Leads in normal 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	Δh	H0	I	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