ABCO Multilayer Ceramic Capacitor

CMC2012-00 for Ceramic Capacitor Series

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▣ Types of Capacitor and Dielectric Material

1. C0G

The capacitor of this kind dielectric material is considered as Class I capacitor, including general capacitor and high frequency C0G capacitor. The electrical properties of C0G capacitor are the most stable one and have little change with temperature, voltage and time. They are suited for applications where low-losses and high-stability are required, such as filters, oscillators, and timing circuits.

2. X7R、X5R

The capacitor of this kind dielectric material has high dielectric constant. The capacitor made of this kind material is considered as Class Ⅱ capacitor whose capacitance is higher than that of class Ⅰ. These capacitors are classified as having a semi-stable temperature characteristic and used over a wide temperature range, such in these kinds of circuits, DC-blocking, decoupling, bypassing, frequency discriminating etc.

3. Y5V

The capacitor made of this kind of material is the highest dielectric constant of all ceramic capacitors. They are used over a moderate temperature range in application where high capacitance is required because of its unstable temperature coefficient, but where moderate losses and capacitance changes can be tolerated. Its capacitance and dissipation factors are sensible to measuring conditions, such as temperature and voltage, etc

CMC Series

http://www.abco.co.kr

▣ Ordering Code

CMC	2012	B	P	-	100	J	C0G	251	-	00
①	②	③	④		⑤	⑥	⑦	⑧		⑨

① Type
CMC

② Dimensions(mm)
2012 : 2.00(L) × 1.25(W)

③ Thickness(mm)	
B	0.60(T)
D	0.85(T)
F	1.25(T)

④ Packing	
P	Paper Tape
E	Plastic Tape

⑤ Capacitance	
0R5	0.5pF
1R0	1pF
100	10pF
101	100pF
102	1000pF
103	0.01μF
104	0.1μF
105	1.0μF
106	10μF

⑥ Tolerance	
B	±0.1pF
C	±0.25pF
D	±0.5pF
F	±1%
G	±2%
J	±5%
K	±10%
M	±20%
Z	-20/80%

⑦ Dielectrics		
Material	Temperature Range	Capacitance change
C0G	-55℃~+125℃	0±30ppm/℃
X7R	-55℃~+125℃	±15%
X5R	-55℃~+85℃	±15%
Y5V	-30℃~+85℃	+22/-82%

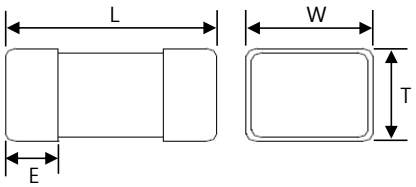
⑧ Rated voltage	
6R3	6.3V_{DC}
100	10V_{DC}
160	16V_{DC}
250	25V_{DC}
500	50V_{DC}
101	100V_{DC}
201	200V_{DC}
251	250V_{DC}

⑨ Internal Code
00

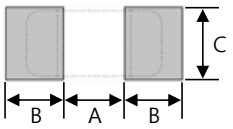
CMC2012-00 Series

http://www.abco.co.kr

▣ Dimensions



▣ Recommended PC Board Pattern



Series	L(mm)	W(mm)	T(mm)			E(mm)
CMC2012-00	2.00±0.10	1.25±0.10	0.60±0.10	0.85±0.10	1.25±0.20	0.2~0.7
CMC2012-00*	2.00±0.20	1.25±0.20	0.60±0.10	0.85±0.10	1.25±0.20	0.2~0.7

* The product size of 1uF and above.

A(mm)	B(mm)	C(mm)
0.8~1.2	0.8~1.2	0.9~1.6

▣ Electrical Characteristics

1) C0G type.

Part No.	Capacitance	Thickness (mm)	Tol.[1]	Temperature Range (℃)	Rated Voltage[2] (V_{DC})
CMC2012BP - 0R5B[1]C0G251[2] - 00	0.5pF	B=0.6±0.10	B=±0.1pF C=±0.25pF	-55℃~+125℃, 0±30ppm/℃	160=16V_{DC} 250=25V_{DC} 500=50V_{DC} 101=100V_{DC} 251=250V_{DC}
CMC2012BP - 1R0B[1]C0G251[2] - 00	1.0pF				
CMC2012BP - 2R0B[1]C0G251[2] - 00	2.0pF				
CMC2012BP - 3R0B[1]C0G251[2] - 00	3.0pF				
CMC2012BP - 4R0B[1]C0G251[2] - 00	4.0pF				
CMC2012BP - 5R0D[1]C0G251[2] - 00	5.0pF		D=±0.5pF		
CMC2012BP - 6R0D[1]C0G251[2] - 00	6.0pF				
CMC2012BP - 7R0D[1]C0G251[2] - 00	7.0pF				
CMC2012BP - 8R0D[1]C0G251[2] - 00	8.0pF				
CMC2012BP - 9R0D[1]C0G251[2] - 00	9.0pF				
CMC2012BP - 100J[1]C0G251[2] - 00	10pF		F=±1% G=±2% J=±5% K=±10%		
CMC2012BP - 120J[1]C0G251[2] - 00	12pF				
CMC2012BP - 150J[1]C0G251[2] - 00	15pF				
CMC2012BP - 180J[1]C0G251[2] - 00	18pF				
CMC2012BP - 200J[1]C0G251[2] - 00	20pF				
CMC2012BP - 220J[1]C0G251[2] - 00	22pF				
CMC2012BP - 270J[1]C0G251[2] - 00	27pF				
CMC2012BP - 300J[1]C0G251[2] - 00	30pF				
CMC2012BP - 330J[1]C0G251[2] - 00	33pF				
CMC2012BP - 390J[1]C0G251[2] - 00	39pF				
CMC2012BP - 470J[1]C0G251[2] - 00	47pF				
CMC2012BP - 560J[1]C0G251[2] - 00	56pF				
CMC2012BP - 680J[1]C0G251[2] - 00	68pF				
CMC2012BP - 820J[1]C0G251[2] - 00	82pF				
CMC2012BP - 101J[1]C0G251[2] - 00	100pF				
CMC2012BP - 121J[1]C0G251[2] - 00	120pF				
CMC2012BP - 151J[1]C0G251[2] - 00	150pF				
CMC2012BP - 181J[1]C0G251[2] - 00	180pF				

▣ Electrical Characteristics

1) C0G type.

Part No.	Capacitance	Thickness (mm)	Tol.[1]	Temperature Range (℃)	Rated Voltage[2] (V_{DC})
CMC2012BP - 201J[1]C0G251[2] - 00	200pF	B=0.6±0.10	F=±1% G=±2% J=±5% K=±10%	-55℃~+125℃, 0±30ppm/℃	160=16V_{DC} 250=25V_{DC} 500=50V_{DC} 101=100V_{DC} 251=250V_{DC}
CMC2012BP - 221J[1]C0G251[2] - 00	220pF				
CMC2012BP - 271J[1]C0G251[2] - 00	270pF				
CMC2012BP - 331J[1]C0G251[2] - 00	330pF				
CMC2012BP - 391J[1]C0G251[2] - 00	390pF				
CMC2012BP - 471J[1]C0G251[2] - 00	470pF				
CMC2012BP - 561J[1]C0G251[2] - 00	560pF				
CMC2012BP - 681J[1]C0G251[2] - 00	680pF				
CMC2012BP - 821J[1]C0G251[2] - 00	820pF				
CMC2012BP - 102J[1]C0G251[2] - 00	1000pF				
CMC2012BP - 152J[1]C0G251[2] - 00	1500pF				
CMC2012BP - 182J[1]C0G101[2] - 00	1800pF				160=16V_{DC}, 250=25V_{DC} 500= 50V_{DC}, 101=100V_{DC}
CMC2012BP - 222J[1]C0G101[2] - 00	2200pF				
CMC2012BP - 272J[1]C0G500[2] - 00	2700pF				160=16V_{DC}, 250= 25V_{DC} 500= 50V_{DC}
CMC2012DP - 332J[1]C0G250[2] - 00	3300pF	D=0.85±0.10			160=16V_{DC} 250=25V_{DC}
CMC2012DP - 472J[1]C0G250[2] - 00	4700pF				
CMC2012DP - 562J[1]C0G250[2] - 00	5600pF				
CMC2012DP - 682J[1]C0G160[2] - 00	6800pF				160=16V_{DC}

2) X7R(Thickness : B) type

Part No.	Capacitance	Thickness (mm)	Tol.[1]	Temperature Range (℃)	Rated Voltage[2] (V_{DC})
CMC2012BP - 101J[1]X7R251[2] - 00	100pF	B=0.6±0.10	J=±5% K=±10% M=±20%	-55℃~+125℃, ±15%	101=100V_{DC} 251=250V_{DC}
CMC2012BP - 121J[1]X7R251[2] - 00	120pF				
CMC2012BP - 151J[1]X7R251[2] - 00	150pF				
CMC2012BP - 181J[1]X7R251[2] - 00	180pF				
CMC2012BP - 201J[1]X7R251[2] - 00	200pF				
CMC2012BP - 331J[1]X7R500[2] - 00	330pF				6R3=6.3V_{DC} 100=10V_{DC} 160=16V_{DC} 250=25V_{DC} 500=50V_{DC}
CMC2012BP - 391J[1]X7R500[2] - 00	390pF				
CMC2012BP - 471J[1]X7R500[2] - 00	470pF				
CMC2012BP - 561J[1]X7R500[2] - 00	560pF				
CMC2012BP - 681J[1]X7R500[2] - 00	680pF				
CMC2012BP - 821J[1]X7R500[2] - 00	820pF				
CMC2012BP - 102J[1]X7R500[2] - 00	1000pF				

▣ Electrical Characteristics

3) X7R(Thickness : D) type

Part No.	Capacitance	Thickness (mm)	Tol.[1]	Temperature Range (℃)	Rated Voltage[2] (V_{DC})
CMC2012DP - 221J[1]X7R251[2] - 00	220pF	D=0.85±0.10	J=±5% K=±10% M=±20%	-55℃~+125℃, ±15%	6R3=6.3V_{DC} 100=10V_{DC} 160=16V_{DC} 250=25V_{DC} 500=50V_{DC} 101=100V_{DC} 251=250V_{DC}
CMC2012DP - 271J[1]X7R251[2] - 00	270pF				
CMC2012DP - 331J[1]X7R251[2] - 00	330pF				
CMC2012DP - 391J[1]X7R251[2] - 00	390pF				
CMC2012DP - 471J[1]X7R251[2] - 00	470pF				
CMC2012DP - 561J[1]X7R251[2] - 00	560pF				
CMC2012DP - 681J[1]X7R251[2] - 00	680pF				
CMC2012DP - 821J[1]X7R251[2] - 00	820pF				
CMC2012DP - 102J[1]X7R251[2] - 00	1000pF				
CMC2012DP - 152J[1]X7R251[2] - 00	1500pF				
CMC2012DP - 182J[1]X7R251[2] - 00	1800pF				
CMC2012DP - 222J[1]X7R251[2] - 00	2200pF				
CMC2012DP - 272J[1]X7R251[2] - 00	2700pF				
CMC2012DP - 332J[1]X7R251[2] - 00	3300pF				
CMC2012DP - 472J[1]X7R101[2] - 00	4700pF				6R3=6.3V_{DC} 100=10V_{DC} 160=16V_{DC} 250=25V_{DC} 500=50V_{DC} 101=100V_{DC}
CMC2012DP - 562J[1]X7R101[2] - 00	5600pF				
CMC2012DP - 682J[1]X7R101[2] - 00	6800pF				
CMC2012DP - 103J[1]X7R101[2] - 00	0.010μF				
CMC2012DP - 153J[1]X7R101[2] - 00	0.015μF				
CMC2012DP - 183J[1]X7R101[2] - 00	0.018μF				
CMC2012DP - 223J[1]X7R101[2] - 00	0.022μF				
CMC2012DP - 273J[1]X7R101[2] - 00	0.027μF				
CMC2012DP - 333J[1]X7R101[2] - 00	0.033μF				
CMC2012DP - 393J[1]X7R101[2] - 00	0.039μF				
CMC2012DP - 473J[1]X7R101[2] - 00	0.047μF				
CMC2012DP - 563J[1]X7R101[2] - 00	0.056μF				
CMC2012DP - 683J[1]X7R101[2] - 00	0.068μF				
CMC2012DP - 104J[1]X7R101[2] - 00	0.10μF				
CMC2012DP - 154J[1]X7R500[2] - 00	0.15μF				6R3=6.3V_{DC} 100=10V_{DC} 160=16V_{DC} 250=25V_{DC} 500=50V_{DC}
CMC2012DP - 184J[1]X7R500[2] - 00	0.18μF				
CMC2012DP - 224J[1]X7R500[2] - 00	0.22μF				
CMC2012DP - 274J[1]X7R500[2] - 00	0.27μF				
CMC2012DP - 334J[1]X7R500[2] - 00	0.33μF				
CMC2012DP - 474J[1]X7R500[2] - 00	0.47μF				
CMC2012DP - 684J[1]X7R500[2] - 00	0.68μF				
CMC2012DP - 105J[1]X7R250[2] - 00	1.00μF				6R3=6.3V_{DC}, 100=10V_{DC} 160=16V_{DC}, 250=25V_{DC}

▣ Electrical Characteristics

4) X7R(Thickness : F) type

Part No.	Capacitance	Thickness (mm)	Tol.[1]	Temperature Range (℃)	Rated Voltage[2] (V_{DC})
CMC2012FP - 331J[1]X7R251[2] - 00	330pF	F=1.25±0.20	J=±5% K=±10% M=±20%	-55℃~+125℃, ±15%	101=100V_{DC} 251=250V_{DC}
CMC2012FP - 391J[1]X7R251[2] - 00	390pF				
CMC2012FP - 471J[1]X7R251[2] - 00	470pF				
CMC2012FP - 561J[1]X7R251[2] - 00	560pF				
CMC2012FP - 681J[1]X7R251[2] - 00	680pF				
CMC2012FP - 821J[1]X7R251[2] - 00	820pF				
CMC2012FP - 102J[1]X7R251[2] - 00	1000pF				
CMC2012FP - 152J[1]X7R251[2] - 00	1500pF				
CMC2012FP - 182J[1]X7R251[2] - 00	1800pF				
CMC2012FP - 222J[1]X7R251[2] - 00	2200pF				
CMC2012FP - 272J[1]X7R251[2] - 00	2700pF				
CMC2012FP - 332J[1]X7R251[2] - 00	3300pF				
CMC2012FP - 472J[1]X7R251[2] - 00	4700pF				
CMC2012FP - 562J[1]X7R251[2] - 00	5600pF				
CMC2012FP - 682J[1]X7R251[2] - 00	6800pF				
CMC2012FP - 103J[1]X7R251[2] - 00	0.010μF				
CMC2012FP - 153J[1]X7R251[2] - 00	0.015μF				
CMC2012FP - 183J[1]X7R251[2] - 00	0.018μF				
CMC2012FP - 223J[1]X7R251[2] - 00	0.022μF				
CMC2012FP - 273J[1]X7R251[2] - 00	0.027μF				
CMC2012FP - 333J[1]X7R251[2] - 00	0.033μF				
CMC2012FP - 393J[1]X7R251[2] - 00	0.039μF				
CMC2012FP - 473J[1]X7R251[2] - 00	0.047μF				
CMC2012FP - 563J[1]X7R101[2] - 00	0.056μF				101=100V_{DC}
CMC2012FP - 683J[1]X7R101[2] - 00	0.068μF				
CMC2012FP - 104J[1]X7R101[2] - 00	0.10μF				
CMC2012FP - 224J[1]X7R500[2] - 00	0.22μF				500=50V_{DC}
CMC2012FP - 274J[1]X7R500[2] - 00	0.27μF				
CMC2012FP - 334J[1]X7R500[2] - 00	0.33μF				
CMC2012FP - 474J[1]X7R500[2] - 00	0.47μF				160=16V_{DC}, 250=25V_{DC} 500=50V_{DC}
CMC2012FP - 684J[1]X7R250[2] - 00	0.68μF				160=16V_{DC}, 250=25V_{DC}
CMC2012FP - 105J[1]X7R500[2] - 00	1.00μF				160=16V_{DC}, 250=25V_{DC} 500=50V_{DC}
CMC2012FP - 225J[1]X7R250[2] - 00	2.20μF				6R3=6.3V_{DC}, 100=10V_{DC} 160=16V_{DC}, 250=25V_{DC}
CMC2012FP - 475J[1]X7R250[2] - 00	4.70μF				
CMC2012FP - 106J[1]X7R160[2] - 00	10μF				6R3=6.3V_{DC}, 100=10V_{DC} 160=16V_{DC}
CMC2012FP - 226J[1]X7R100[2] - 00	22μF				6R3=6.3V_{DC}, 100=10V_{DC}
CMC2012FP - 476J[1]X7R6R3[2] - 00	47μF				6R3=6.3V_{DC}

▣ Electrical Characteristics

5) X5R(Thickness : B) type

Part No.	Capacitance	Thickness (mm)	Tol.[1]	Temperature Range (℃)	Rated Voltage[2] (V_{DC})
CMC2012BP - 331J[1]X5R500[2] - 00	330pF	B=0.6±0.10	J=±5% K=±10% M=±20%	-55℃~+85℃, ±15%	6R3=6.3V_{DC} 100=10V_{DC} 160=16V_{DC} 250=25V_{DC} 500=50V_{DC}
CMC2012BP - 391J[1]X5R500[2] - 00	390pF				
CMC2012BP - 471J[1]X5R500[2] - 00	470pF				
CMC2012BP - 561J[1]X5R500[2] - 00	560pF				
CMC2012BP - 681J[1]X5R500[2] - 00	680pF				
CMC2012BP - 821J[1]X5R500[2] - 00	820pF				
CMC2012BP - 102J[1]X5R500[2] - 00	1000pF				

6) X5R(Thickness : D) type

Part No.	Capacitance	Thickness (mm)	Tol.[1]	Temperature Range (℃)	Rated Voltage[2] (V_{DC})
CMC2012DP - 221J[1]X5R500[2] - 00	220pF	D=0.85±0.10	J=±5% K=±10% M=±20%	-55℃~+85℃, ±15%	6R3=6.3V_{DC} 100=10V_{DC} 160=16V_{DC} 250=25V_{DC} 500=50V_{DC}
CMC2012DP - 271J[1]X5R500[2] - 00	270pF				
CMC2012DP - 331J[1]X5R500[2] - 00	330pF				
CMC2012DP - 391J[1]X5R500[2] - 00	390pF				
CMC2012DP - 471J[1]X5R500[2] - 00	470pF				
CMC2012DP - 561J[1]X5R500[2] - 00	560pF				
CMC2012DP - 681J[1]X5R500[2] - 00	680pF				
CMC2012DP - 821J[1]X5R500[2] - 00	820pF				
CMC2012DP - 102J[1]X5R500[2] - 00	1000pF				
CMC2012DP - 152J[1]X5R500[2] - 00	1500pF				
CMC2012DP - 182J[1]X5R500[2] - 00	1800pF				
CMC2012DP - 222J[1]X5R500[2] - 00	2200pF				
CMC2012DP - 272J[1]X5R500[2] - 00	2700pF				
CMC2012DP - 332J[1]X5R500[2] - 00	3300pF				
CMC2012DP - 472J[1]X5R500[2] - 00	4700pF				
CMC2012DP - 562J[1]X5R500[2] - 00	5600pF				
CMC2012DP - 682J[1]X5R500[2] - 00	6800pF				
CMC2012DP - 103J[1]X5R500[2] - 00	0.010μF				
CMC2012DP - 153J[1]X5R500[2] - 00	0.015μF				
CMC2012DP - 183J[1]X5R500[2] - 00	0.018μF				
CMC2012DP - 223J[1]X5R500[2] - 00	0.022μF				
CMC2012DP - 273J[1]X5R500[2] - 00	0.027μF				
CMC2012DP - 333J[1]X5R500[2] - 00	0.033μF				
CMC2012DP - 393J[1]X5R500[2] - 00	0.039μF				
CMC2012DP - 473J[1]X5R500[2] - 00	0.047μF				
CMC2012DP - 563J[1]X5R500[2] - 00	0.056μF				
CMC2012DP - 683J[1]X5R500[2] - 00	0.068μF				

▣ Electrical Characteristics

6) X5R(Thickness : D) type

Part No.	Capacitance	Thickness (mm)	Tol.[1]	Temperature Range (℃)	Rated Voltage[2] (V_{DC})
CMC2012DP - 104J[1]X5R500[2] - 00	0.10μF	D=0.85±0.10	J=±5% K=±10% M=±20%	-55℃~+85℃, ±15%	6R3=6.3V_{DC} 100=10V_{DC} 160=16V_{DC} 250=25V_{DC} 500=50V_{DC}
CMC2012DP - 154J[1]X5R500[2] - 00	0.15μF				
CMC2012DP - 184J[1]X5R500[2] - 00	0.18μF				
CMC2012DP - 224J[1]X5R500[2] - 00	0.22μF				
CMC2012DP - 274J[1]X5R500[2] - 00	0.27μF				
CMC2012DP - 334J[1]X5R500[2] - 00	0.33μF				
CMC2012DP - 474J[1]X5R500[2] - 00	0.47μF				
CMC2012DP - 684J[1]X5R500[2] - 00	0.68μF				
CMC2012DP - 105J[1]X5R250[2] - 00	1.00μF				6R3=6.3V_{DC}, 100=10V_{DC} 160=16V_{DC}, 250=25V_{DC}

7) X5R(Thickness : F) type

Part No.	Capacitance	Thickness (mm)	Tol.[1]	Temperature Range (℃)	Rated Voltage[2] (V_{DC})
CMC2012FP - 224J[1]X5R500[2] - 00	0.22μF	F=1.25±0.20	J=±5% K=±10% M=±20%	-55℃~+85℃, ±15%	500= 50V_{DC}
CMC2012FP - 274J[1]X5R500[2] - 00	0.27μF				
CMC2012FP - 334J[1]X5R500[2] - 00	0.33μF				
CMC2012FP - 474J[1]X5R500[2] - 00	0.47μF				160=16V_{DC}, 250=25V_{DC} 500=50V_{DC}
CMC2012FP - 684J[1]X5R250[2] - 00	0.68μF				160=16V_{DC}, 250=25V_{DC}
CMC2012FP - 105J[1]X5R500[2] - 00	1.00μF				160=16V_{DC}, 250=25V_{DC} 500= 50V_{DC}
CMC2012FP - 225J[1]X5R250[2] - 00	2.20μF				6R3=6.3V_{DC}, 100=10V_{DC} 160=16V_{DC}, 250=25V_{DC}
CMC2012FP - 475J[1]X5R250[2] - 00	4.70μF				
CMC2012FP - 106J[1]X5R160[2] - 00	10μF				6R3=6.3V_{DC}, 100=10V_{DC} 160=16V_{DC}
CMC2012FP - 226J[1]X5R100[2] - 00	22μF				6R3=6.3V_{DC}, 100=10V_{DC}
CMC2012FP - 476J[1]X5R6R3[2] - 00	47μF				6R3=6.3V_{DC}

8) Y5V(Thickness : D) type

Part No.	Capacitance	Thickness (mm)	Tol.[1]	Temperature Range (℃)	Rated Voltage[2] (V_{DC})
CMC2012DP - 102M[1]Y5V500[2] - 00	1000pF	D=0.85±0.10	M=±20% Z=-20/+80%	-30℃~+85℃, +22/-82%	6R3=6.3V_{DC} 100=10V_{DC} 160=16V_{DC} 250=25V_{DC} 500=50V_{DC}
CMC2012DP - 152M[1]Y5V500[2] - 00	1500pF				
CMC2012DP - 182M[1]Y5V500[2] - 00	1800pF				
CMC2012DP - 222M[1]Y5V500[2] - 00	2200pF				
CMC2012DP - 272M[1]Y5V500[2] - 00	2700pF				
CMC2012DP - 332M[1]Y5V500[2] - 00	3300pF				
CMC2012DP - 472M[1]Y5V500[2] - 00	4700pF				
CMC2012DP - 562M[1]Y5V500[2] - 00	5600pF				
CMC2012DP - 682M[1]Y5V500[2] - 00	6800pF				
CMC2012DP - 103M[1]Y5V500[2] - 00	0.010μF				

▣ Electrical Characteristics

8) Y5V(Thickness : D) type

Part No.	Capacitance	Thickness (mm)	Tol.[1]	Temperature Range (℃)	Rated Voltage[2] (V_{DC})
CMC2012DP - 153M[1]Y5V500[2] - 00	0.015μF	D=0.85±0.10	M=±20% Z=-20/+80%	-30℃~+85℃, +22/-82%	6R3=6.3V_{DC} 100=10V_{DC} 160=16V_{DC} 250=25V_{DC} 500=50V_{DC}
CMC2012DP - 183M[1]Y5V500[2] - 00	0.018μF				
CMC2012DP - 223M[1]Y5V500[2] - 00	0.022μF				
CMC2012DP - 273M[1]Y5V500[2] - 00	0.027μF				
CMC2012DP - 333M[1]Y5V500[2] - 00	0.033μF				
CMC2012DP - 393M[1]Y5V500[2] - 00	0.039μF				
CMC2012DP - 473M[1]Y5V500[2] - 00	0.047μF				
CMC2012DP - 563M[1]Y5V500[2] - 00	0.056μF				
CMC2012DP - 683M[1]Y5V500[2] - 00	0.068μF				
CMC2012DP - 104M[1]Y5V500[2] - 00	0.10μF				
CMC2012DP - 154M[1]Y5V500[2] - 00	0.15μF				
CMC2012DP - 184M[1]Y5V500[2] - 00	0.18μF				
CMC2012DP - 224M[1]Y5V500[2] - 00	0.22μF				
CMC2012DP - 274M[1]Y5V500[2] - 00	0.27μF				
CMC2012DP - 334M[1]Y5V500[2] - 00	0.33μF				
CMC2012DP - 474M[1]Y5V500[2] - 00	0.47μF				
CMC2012DP - 684M[1]Y5V500[2] - 00	0.68μF				
CMC2012DP - 105M[1]Y5V250[2] - 00	1.00μF				6R3=6.3V_{DC}, 100=10V_{DC} 160=16V_{DC}, 250=25V_{DC}

9) Y5V(Thickness : F) type

Part No.	Capacitance	Thickness (mm)	Tol.[1]	Temperature Range (℃)	Rated Voltage[2] (V_{DC})
CMC2012FP - 224M[1]Y5V500[2] - 00	0.22μF	F=1.25±0.20	M=±20% Z=-20/+80%	-30℃~+85℃, +22/-82%	500=50V_{DC}
CMC2012FP - 274M[1]Y5V500[2] - 00	0.27μF				
CMC2012FP - 334M[1]Y5V500[2] - 00	0.33μF				
CMC2012FP - 474M[1]Y5V500[2] - 00	0.47μF				160=16V_{DC}, 250=25V_{DC} 500=50V_{DC}
CMC2012FP - 684M[1]Y5V250[2] - 00	0.68μF				160=16V_{DC}, 250=25V_{DC}
CMC2012FP - 105M[1]Y5V500[2] - 00	1.00μF				160=16V_{DC}, 250=25V_{DC} 500=50V_{DC}
CMC2012FP - 225M[1]Y5V250[2] - 00	2.20μF				6R3=6.3V_{DC}, 100=10V_{DC} 160=16V_{DC}, 250=25V_{DC}
CMC2012FP - 475M[1]Y5V160[2] - 00	4.70μF				6R3=6.3V_{DC}, 100=10V_{DC} 160=16V_{DC}
CMC2012FP - 106M[1]Y5V100[2] - 00	10.0μF				6R3=6.3V_{DC}, 100=10V_{DC}
CMC2012FP - 226M[1]Y5V6R3[2] - 00	22.0μF				6R3=6.3V_{DC}

1. Test Methods
   - Capacitance

Dielectrics	Specification	Testing Condition
C0G	Within the specified tolerance A : ±0.05pF, B : ±0.1pF, C : ±0.25pF, D : ±0.5pF, J : ±5%	1.0±0.2Vrms, 1MHz±10% (C>1000 pF, 1.0±0.2Vrms, 1KHz±10%)
X7R, X5R	Within the specified tolerance J : ±5%, K : ±10%, M : ±20%	1.0±0.2Vrms, 1MHz±10% (Cp > 10uF, 0.5±0.1Vrms, 120±24Hz)
Y5V	Within the specified tolerance M : ±20%, Z : -20%/+80%	1.0±0.2Vrms, 1MHz±10% (Cp > 10uF, 0.5±0.1Vrms, 120±24Hz)
Note : Test temperature 25℃+3℃, Test humidity <70%RH. ClassⅡ capacitor need de-aging treatment. (Condition: capacitor in 150℃ heat treatment for 1 hour, measure placed after 48h.)		