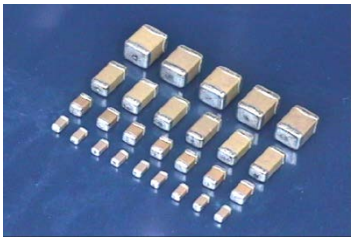
THE DATASHEET OF

C1210X225K101T

Holy Stone

Multilayer Ceramic Chip Capacitors
[High Capacitance MLCC – 1.0uF and above]
HCC Series



◆ Features

- ❑ Surface mount suitable for wave and reflow soldering
- ❑ High reliability
- ❑ Small size and high capacitance value
- ❑ Excellent high frequency characteristics

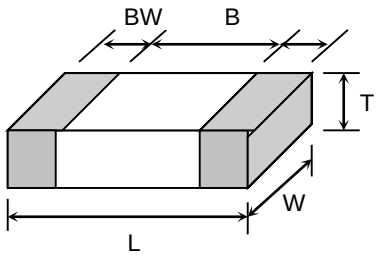
◆ Applications

- ❑ Ideal for smoothing and decoupling circuits
- ❑ Suitable for DC-DC converter, personal computer and peripherals, telecommunication and general electronic equipment
- ❑ RoHS compliant

◆ Summary of Specifications

Operation Temperature	NP0 / X7R / X7S : -55° ℃ ~ +125 ℃ , X6S : -55 ℃ ~ +105 ℃; X5R : -55 ℃ ~ +85° ℃ , Y5V : -30° ℃ ~ +85° ℃
Rated Voltage	4.0Vdc to 50Vdc
Temperature Coefficient	X7R : ≤ ± 15% , -55° ℃ ~ +125 ℃ (EIA Class Ⅱ)
	X7S : ≤ ± 22% , -55° ℃ ~ +125 ℃ (EIA Class Ⅱ)
	X6S : ≤ ± 22% , -55 ℃ ~ +105 ℃ (EIA Class Ⅱ)
	X5R : ≤ ± 15% , -55 ℃ ~ +85 ℃ (EIA Class Ⅱ)
	Y5V : +22%/-82% , -30 ℃ ~ +85 ℃ (EIA Class Ⅱ)
Dissipation Factor	X7R, X5R, X6S, X7S : Max. 0.15; Y5V: Max 0.2
Insulation Resistance	10GΩ or 500/CΩ whichever is smaller (C in Farads)
Aging	X7S/X7R/X6S/X5R : typically 1.0% and Y5V ≤ 7% per decade of time
Dielectric Strength	250% Rated Voltage

◆ Dimension



TYPE	L	W	T (max)	B (min)	BW (min)
0201	0.60±0.03 [.024±.001]	0.30±0.03 [.011 ±.001]	0.33 [.013]	0.20 [.008]	0.10 [.004]
0402	1.00±0.05 [.039±.002]	0.50±0.05 [.020 ±.002]	0.55 [.022]	0.30 [.012]	0.15 [.006]
0603	1.60±0.10 [.063±.004]	0.80±0.10 [.031 ±.004]	0.95 [.037]	0.40 [.016]	0.15 [.006]
0805	2.00±0.20 [.079±.012]	1.25±0.20 [.049 ±.008]	1.45 [.057]	0.70 [.028]	0.20 [.008]
1206	3.20±0.30 [.126±.012]	1.60±0.20 [.126±.012]	1.80 [.071]	1.50 [.059]	0.30 [.012]
1210	3.20±0.30 [.126±.012]	2.50±0.20 [.098±.008]	2.70 [.105]	1.60 [.063]	0.30 [.012]
1812	4.60±0.3 [.181±.012]	3.20±0.3 [.126±.012]	3.00 [.118]	2.50 [.098]	0.30 [.012]
2220	5.7±0.40 [.220±.016]	5.00±0.40 [.197±.016]	3.00 [.118]	3.50 [.137]	0.30 [.012]

◆ How To Order

C	0805	B	106	K	010	T	Y

Product Code	Chip Size	Dielectric	Capacitance Unit : pF	Tolerance	Rated Voltage	Packaging	Suffix Code
C: MLCC (Multilayer Ceramic Capacitor)	Ex. 0402 / 0603 0805 / 1206 1210 / 1812 2220	Ex.: X:X7R S:X6S B:X5R Y:Y5V R:X7S	Ex.: 105:10×10^5 106:10×10^6 226:22×10^6	Ex.: J : +/- 5% K: +/- 10% M: +/- 20% Z :+80/-20%	Ex.: 004: 4Vdc 007: 6.3Vdc 010: 10Vdc 025: 25Vdc 050: 50Vdc	T: T&R 7” R: T&R 13” B: Bulk	Y

◆ Capacitance Range

X7R (X) Series

Size	0402		0603					0805						1206						1210					1812		2220	
Code	4V	6.3V	6.3V	10V	16V	25V	50V	6.3V	10V	16V	25V	35V	50V	6.3V	10V	16V	25V	35V	50V	10V	16V	25V	35V	50V	25V	50V	25V	50V
105	O	O	B	B	B	B	B	D	D	D	D	D	D	D	D	D/E	D/E	D/E	D/E	D	D	D	D	E	F	F	F	F
155																										F		
225			B	B				D	D	D	D	D	D	E	E	E	E	E	E	F	F	F	F	F	F	F	F	F
335														E	E	E	E									F		
475								D	D	D	D			E	E	E	E	E	E	F	F	F	F	F	F	F	F	F
106								D	D	D				E	E	E	E	E		F	F	F	F	F/G	F/G	F/G	G	G
226														E	E					G	G	G						
476																				G								

X7S (R) Series

Size	0402		0603			0805		1206	1210
Code	6.3V	10V	10V	16V	25V	25V	50V	16V	6.3V
105		O							
155									
225	O	O		B	B				
335									
475			B	B			D		
106						D			
226								E	
476									
107									G

Y5V (Y) Series

Size	0402		0603				0805					1206			1210			
Code	6.3V	10V	6.3	10V	16V	25V	6.3V	10V	16V	25V	50V	10V	16V	25V	10V	16V	25V	35V
105	O	O		B	B	B			B	B	D							
225			B	B	B		D	D	D	D								
475			B	B			D	D	D									
106							D	D	D			D	D/E	E		F	F	F
226							D	D				D/E	D/E		F	F		

X6S (S) Series

Size	0201		0402				0603						0805							1206							1210					
Code	4V	6.3V	6.3V	10V	16V	25V	4V	6.3V	10V	16V	25V	50V	4V	6.3V	10V	16V	25V	35V	50V	4V	6.3V	10V	16V	25V	35V	50V	6.3V	10V	16V	25V	35V	50V
105	S	S	O	O	O	O		B	B	B	B	B				D	D	D	D						E	E						E
225			O	O	O	O		B	B	B	B				D	D	D	D	D				E	E	E	E			F	F	F	F
475			O					B	B	B	B			D	D	D	D	D	D			E	E	E	E	E		F	F	F	F	F
106			O				B	B	B	B				D	D	D	D	D			E	E	E	E	E		F	F	F	F	F	F/G
226							B	B					D	D	D	D				E	E	E	E	E			G	G	G		
476													D							E	E						G	G	G			
107																											G					
227																											G					

X5R (B) Series

Size	0201			0402					0603						0805							1206					1210				
Code	4V	6.3V	10V	6.3V	10V	16V	25V	35V	6.3V	10V	16V	25V	35V	50V	4V	6.3V	10V	16V	25V	35V	50V	6.3V	10V	16V	25V	50V	6.3V	10V	16V	25V	50V
105		S	S	O	O	O	O	O	B	B	B	B	B	B		D	D	D	D	D	D			E	E	E	F	F	F	F	F
225	S	S		O	O	O	O	O	B	B	B	B	B	B		D	D	D	D	D	D		E	E	E	E	F	F	F	F	F
335																	D	D													
475				O	O	O			B	B	B	B	B			D	D	D	D	D	D		E	E	E	E	F	F	F	F	F
106				O	O				B	B	B	B	B			D	D	D	D	D	D	E	E	E	E	E	F	F	F	F	F/G
226									B	B						D	D	D	D			E	E	E	E		G	G	G	G	
476									B						D	D	D					E	E	E	E		G	G	G		
107															D	D						E					F/G	F/G	G		
227																											G				

- ***The yellow indication denotes values that are under development. Please contact Holy Stone office for further details***
- ***Other dimensions, capacitance values and voltages ratings are available on request. Please contact Holy Stone.***

◆ Thickness Specification

Symbol Code	S	O	A	B	C	D	E	F	G	H
Thickness(mm)	0.3±0.03	0.5±0.05	0.6±0.1	0.85±0.15	1.0+0.1/-0.05	1.25±0.20	1.6±0.2	2.0±0.2	2.4±0.2	2.8±0.2

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