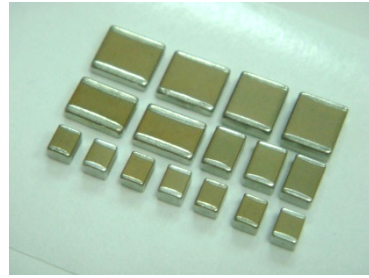


Multilayer Ceramic Chip Capacitors [High Cap. X7R]

HCX Series



◆ Features

- Rated working voltage of 50Vdc and 100Vdc
- Small size & high capacitance
- Excellent Bias, high temperature stability & low Tan δ
- Low ESR and excellent ripple current characteristics
- RoHS compliant

◆ Applications

- DC-DC Converters (filter)
- Industrial controls
- Power supplies
- Surge protection

◆ Summary of Specifications

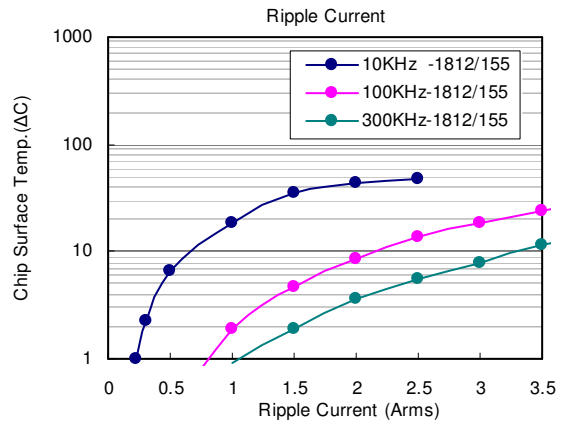
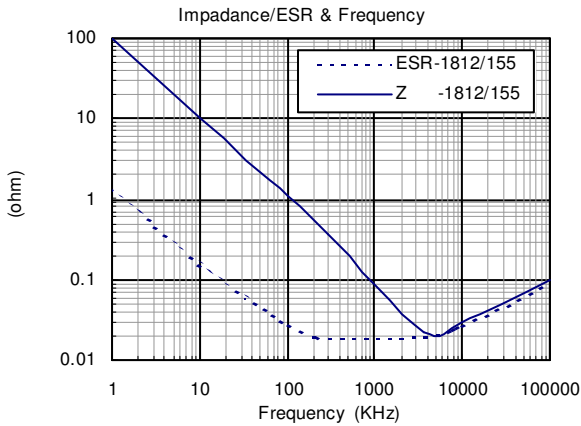
Operation Temperature	-55 °C ~ +125 °C
Rated Voltage	50Vdc to 100Vdc
Temperature Coefficient	X7R : $\leq \pm 15\%$ at -55 °C ~ +125 °C (EIA Class II)
Capacitance Range	100nF ~ 10uF
Dissipation Factor	2.5% max. at 1KHz 25 °C
Insulation Resistance	10G Ω or 500/C Ω whichever is smaller (C in Farad)
Dielectric Strength	50V : 250% Rated Voltage for 5 second @ 50mA max. current
	100V : 200% Rated Voltage for 5 second @ 50mA max. current
Capacitance Tolerance	$\pm 10\%$, $\pm 20\%$
Aging	1.0% per decade hr., typical

◆ How To Order

C
1210
X
225
K
101
T
X

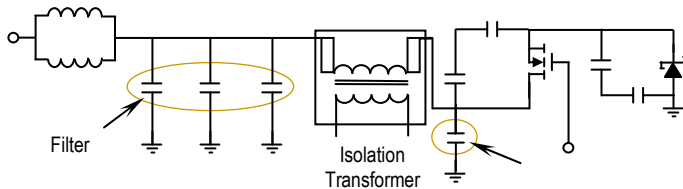
Product Code	Chip Size	Dielectric	Capacitance Unit : pF	Tolerance	Rated Voltage	Packaging	Special Requirement
C: MLCC (Multilayer Ceramic Chip of Capacitor)	Ex.: 1210 1812 1825 2220 2225	X: X7R	Ex.: 102 : 10 \times 10 ² 224 : 22 \times 10 ⁴ 105 : 10 \times 10 ⁵	Ex.: K : +/- 10% M : +/- 20%	Ex.: 050 : 50Vdc 101 : 100Vdc	T: T&R 7" R: T&R 13" B: Bulk	Ex.: O: Arc Prevention Coating X: Cushion Termination (Super Term)

◆ Characteristics

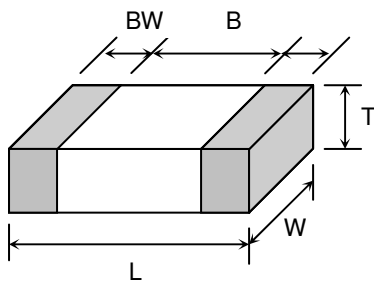


◆ Application Example Circuit

DC-DC Converter



◆ Dimensions



Unit : mm [inches]

TYPE	L	W	T (max)	B (min)	BW (min)
1210	3.20±0.30 [.126±.012]	2.50±0.20 [.098±.008]	2.60 [.102]	1.60 [.063]	0.30 [.012]
1812	4.60±0.30 [.181±.012]	3.20±0.30 [.126±.012]	3.00 [.118]	2.50 [.098]	0.30 [.012]
1825	4.60±0.30 [.181±.012]	6.35±0.40 [.250±.016]	3.00 [.118]	2.50 [.098]	0.30 [.012]
2220	5.70±0.40 [.220±.016]	5.00±0.40 [.197±.016]	3.00 [.118]	3.50 [.137]	0.30 [.012]
2225	5.70±0.40 [.220±.016]	6.35±0.40 [.250±.016]	3.00 [.118]	3.50 [.137]	0.30 [.012]

◆ Capacitance Range

Size		1210		1812		1825		2220		2225	
Code	WVDC	50V	100V	50V	100V	50V	100V	50V	100V	50V	100V
104	100nF	■	■	■	■	■	■				
154	150nF	■	■	■	■	■	■				
224	220nF	■	■	■	■	■	■				
334	330nF	■	■	■	■	■	■				
474	470nF	■	■	■	■	■	■				
564	560nF	■	■	■	■	■	■	■	■	■	■
684	680nF	■	■	■	■	■	■	■	■	■	■
105	1uF	■	■	■	■	■	■	■	■	■	■
155	1.5uF	■	■	■	■	■	■	■	■	■	■
225	2.2uF	■	■	■	■	■	■	■	■	■	■
335	3.3uF	■	■	■	■	■	■	■	■	■	■
475	4.7uF	■	■	■	■	■	■	■	■	■	■
685	6.8uF							■	■	■	■
106	10uF							■	■	■	■

■ Other dimensions, capacitance values and voltages rating are available. Please contact Holy Stone.