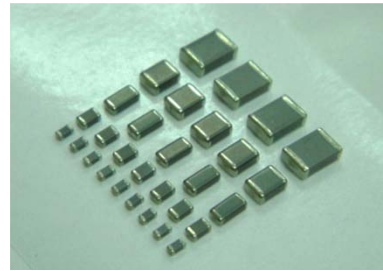


HCN Series High Capacitance NP0 - 1nF and above



◆ Features

- Small size & high capacitance.
- Suitable for wave and reflow soldering.
- Excellent characteristics and tight tolerance.
- Excellent bias, high temperature stability & low $\tan \delta$.
- Replace film capacitors.
- RoHS compliant.

◆ Application

- Suitable for ADSL filter circuits, cable modem and coupling circuits, general telecommunications use, power (inverter for oscillation circuit) and audio circuits.

◆ Summary of Specifications

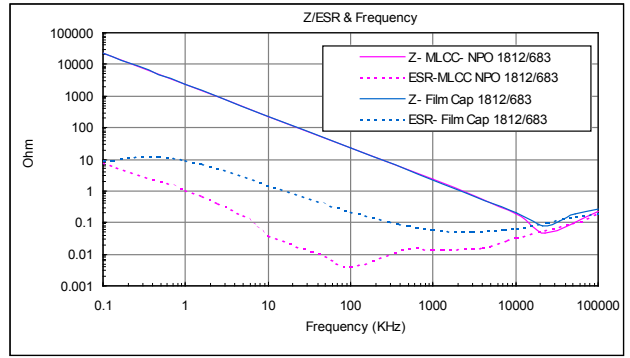
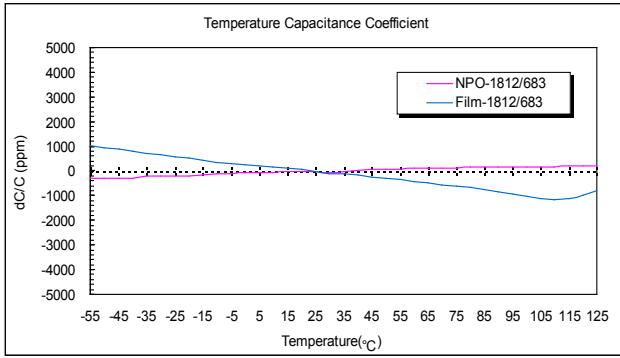
Operating Temperature	-55~+125 °C
Rated Voltage	16V to 50Vdc
Temperature Coefficient	NP0 : $\leq 30\text{ppm}/^\circ\text{C}$, -55~+125 °C (EIA Class I)
Capacitance Range	1nF ~ 220nF
Dissipation Factor	$Q \geq 1000$ at 1KHz 20°C
Insulation Resistance	10GΩ or 500/C Ω whichever is smaller (C in Farad)
Dielectric Strength	250% rated voltage for 5 second @ 50mA max. current
Ageing	0% per decade hr

◆ How To Order

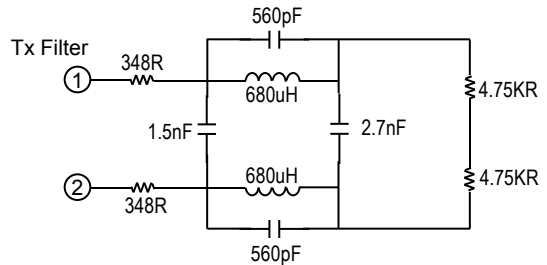
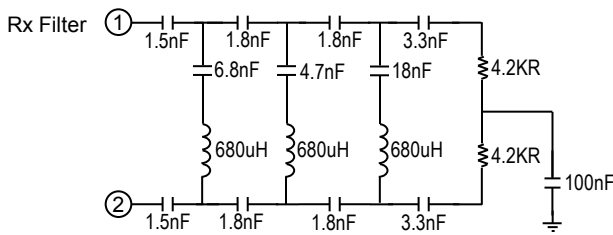
C	1206	N	103	J	025	T
Product Code	Chip Size	Dielectric	Capacitance Unit : pF	Tolerance	Rated Voltage	Packaging
C : MLCC Multilayer Ceramic Capacitor	0603 0805 1206 1210 1812	N : NP0	Ex. : 102 : 10×10^2 103 : 10×10^3 124 : 12×10^4	Ex. : F : +/- 1% G : +/- 2% J : +/- 5%	Ex. : 016 : 16Vdc 025 : 25Vdc 050 : 50Vdc	T : Tape & Reel B : Bulk

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◆ Characteristics

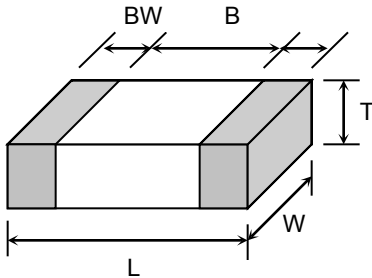


◆ Application Example Circuits



◆ Dimensions

Unit : mm [inches]



TYPE	L	W	T (max)	B (min)	BW (min)
0603	1.60±0.1 [.063±.004]	0.80±0.1 [.031±.004]	0.90 [.039]	0.40 [.016]	0.15 [.006]
0805	2.00±0.2 [.079±.008]	1.25±0.2 [.049±.008]	1.40 [.055]	0.70 [.028]	0.20 [.008]
1206	3.20±0.3 [.126±.012]	1.60±0.2 [.063±.008]	1.80 [.071]	1.50 [.059]	0.30 [.012]
1210	3.20±0.3 [.126±.012]	2.50±0.2 [.098±.008]	2.20 [.087]	1.60 [.063]	0.30 [.012]
1812	4.60±0.3 [.181±.012]	3.20±0.3 [.126±.012]	2.20 [.087]	4.00 [.157]	0.20 [.008]

◆ Capacitance Range

Dielectric Characteristic	Size	Voltage	Capacitance Range																													
			102	122	152	182	222	272	332	392	472	562	682	822	103	123	153	183	223	273	333	393	473	563	683	823	104	124	154	224		
NPO	0603	16V	B	B	B	B	B	B	B																							
		25V	B	B	B	B	B	B	B																							
		50V	B	B	B	B	B	B	B																							
	0805	16V	B	B	B	B	C/D	D	D	D	D	D	D	D	D																	
		25V	B	B	B	B	C/D	D	D	D	D	D	D	D	D																	
		50V	B	B	B	B	C/D	D	D	D	D	D	D	D	D																	
	1206	16V	B	B	B	B	B	B	B	B	B	B	B	B	B	D	D	D	D	D	D	E										
		25V	B	B	B	B	B	B	B	B	B	B	B	B	B	D	D	D	D	D	D											
		50V	B	B	B	B	B	B	B	B	B	B	B	B	B	D	D	D	D	D	D											
	1210	16V	C	C	C	C	C	C	C	C	C	C	C	C	C	D	D	D	D	D	D	E	E	E	E	E						
		25V	C	C	C	C	C	C	C	C	C	C	C	C	C	D	E	E	E	F												
		50V	C	C	C	C	C	C	C	C	C	C	C	C	C	D	E	E	F													
1812	16V	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	E	F	F	F	F	F	F	
	25V	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	F							
	50V	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	F								
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±0.1	1.0±0.1	1.25±0.15	1.6±0.2	2.0±0.2	2.4±0.2	2.8±0.2																						

■ Other dimensions, capacitance values and voltage ratings are available. Please contact HEC.