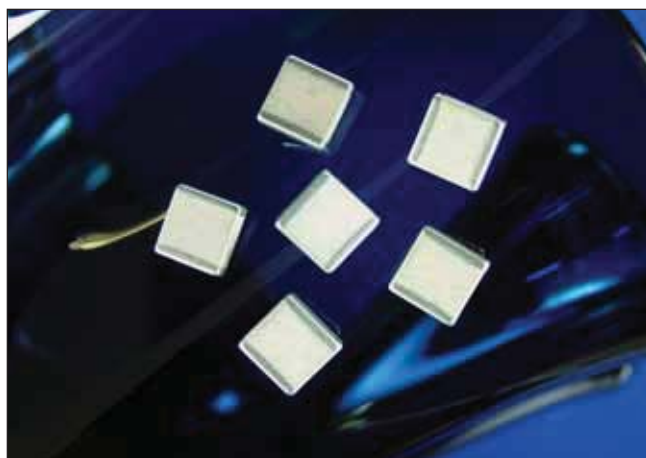


High Q Porcelain Capacitors - CF Series



Description

- High Q Porcelain Capacitors • SMD Compatibility
- Ultra Temperature Stable • Low ESR, High Q
- Capacitance range 0.1 - 5100 pF
- Operating Range -55° to +125°C • High Voltage
- High Self-resonance • Low Noise • Established Reliability

Functional Applications

- Impedance Matching • Power Handling • DC Blocking
- Bypass • Coupling • Tuning and Feedback
- Amplifier Matching Networks • VCO Frequency Stabilization
- Filtering, Diplexers and Antenna Matching
- High RF Power Circuits • Oscillators • Timing Circuits
- Filters • RF Power Amplifiers and Delay Lines

Dielectric characteristics

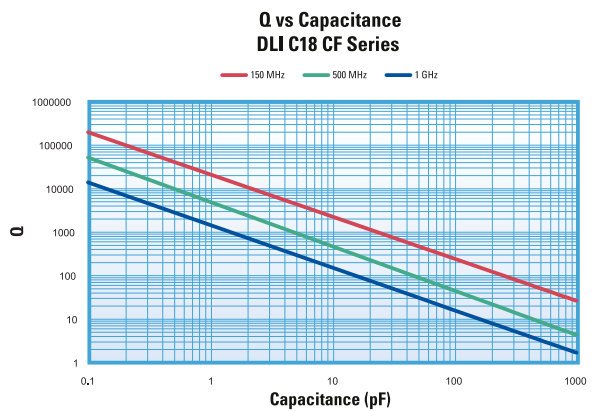
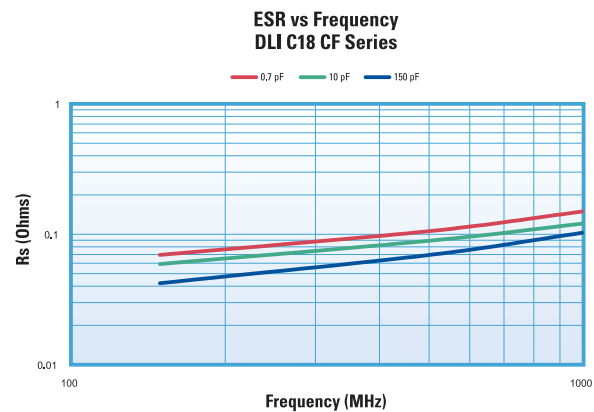
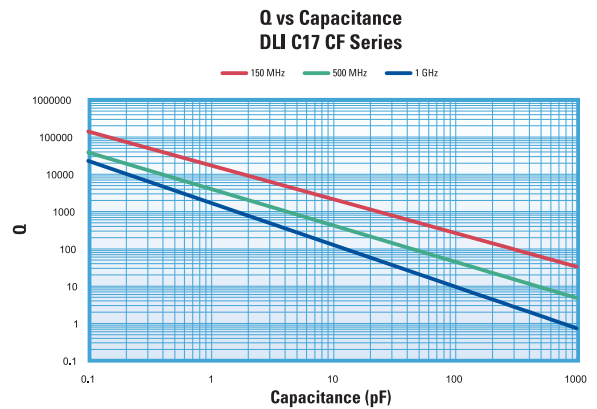
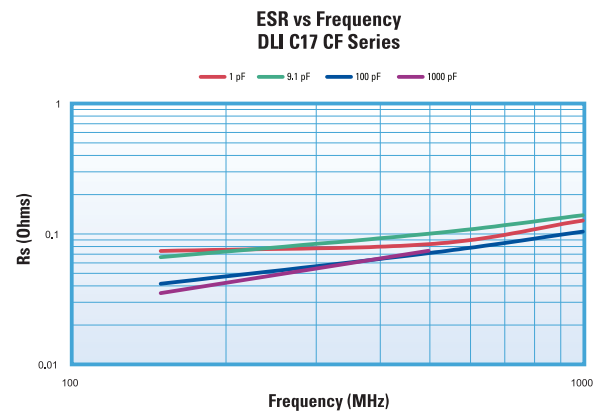
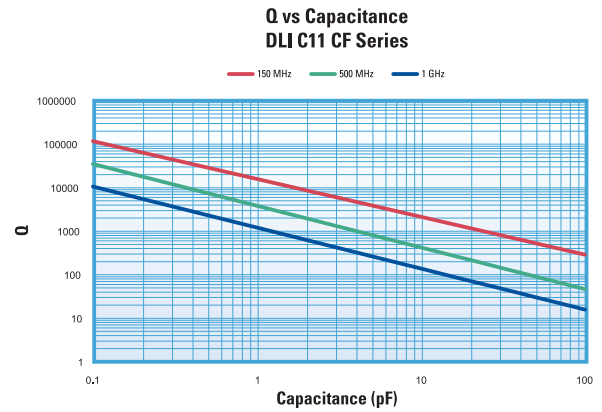
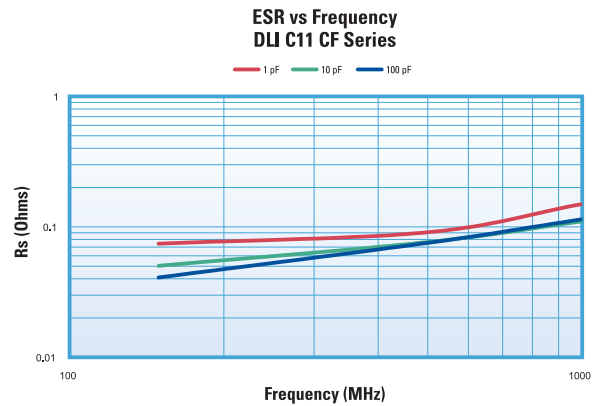
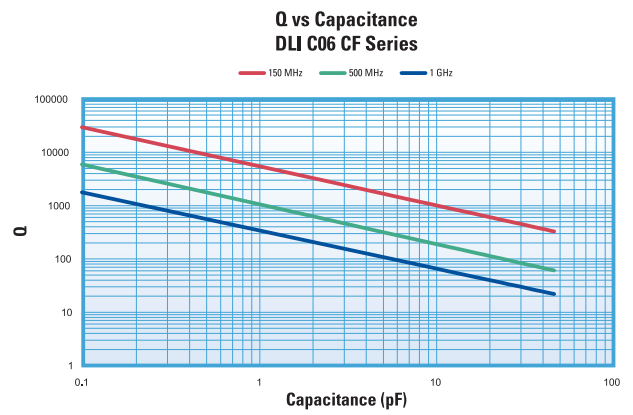
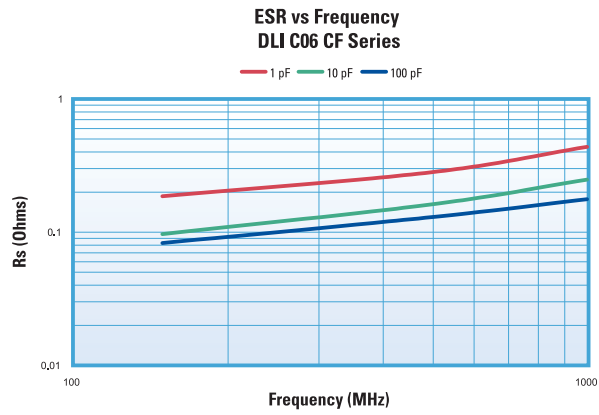
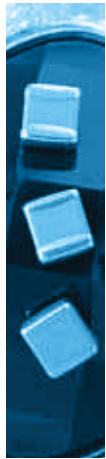
Dielectric Material (Code)	C0G/NP0 (CF)	
Temperature Coefficient (ppm/°C)	0 ± 15	
Dissipation Factor (% @ 1MHz Maximum)	0.05	
Dielectric Withstanding Voltage	Voltage Rating (Volts)	Refer to table
	DWV (Volts)	250% of rated
Insulation Resistance (MΩ Minimum)	@ +25°C	10 ⁶ MΩ min
	@ +125°C	10 ⁵ MΩ min
Ageing	None	
Piezoelectric Effects	None	
Dielectric Absorption	None	

Capacitance and Voltage Table

Cap Code	Cap (PF)	C06 0603	C11 0505	Case Size C17 1111	C18 1111	C22 2225	C40 3838
0R1	0.1						
0R2	0.2						
0R3	0.3						
0R4	0.4						
0R5	0.5						
0R6	0.6						
0R7	0.7						
0R8	0.8						
0R9	0.9						
1R0	1.0						
1R1	1.1						
1R3	1.3						
1R4	1.4						
1R5	1.5						
1R6	1.6						
1R7	1.7						
1R8	1.8						
1R9	1.9						
2R0	2.0						
2R1	2.1						
2R2	2.2						
2R4	2.4						
2R7	2.7						
3R0	3.0						
3R3	3.3						
3R6	3.6						
3R9	3.9						
4R3	4.3						
4R7	4.7						
5R1	5.1						
5R6	5.6						
6R2	6.2						
6R8	6.8						
7R5	7.5						
8R2	8.2						
9R1	9.1						
100	10						
110	11						
120	12						
130	13						
150	15						
160	16						
180	18						
200	20						
220	22						
240	24						
270	27						
300	30						
330	33						
360	36						
390	39						
430	43						
470	47						
510	51						
560	56						
620	62						
680	68						
750	75						
820	82						
910	91						
101	100						
111	110						
121	120						
131	130						
151	150						
161	160						
181	180						
201	200						
221	220						
241	240						
271	270						
301	300						
331	330						
361	360						
391	390						
431	430						
471	470						
511	510						
561	560						
621	620						
681	680						
751	750						
821	820						
911	910						
102	1000						
122	1200						
152	1500						
182	1800						
222	2200						
272	2700						
332	3300						
392	3900						
472	4700						
512	5100						
Reel QTY		4000	3500	2350	2350	500	250

Special capacitance values available upon request.

High Q Porcelain Capacitors - CF Series



Note: This information represents typical device performance.



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DLI•JohansonMFG•Novacap•Syfer•Voltronics

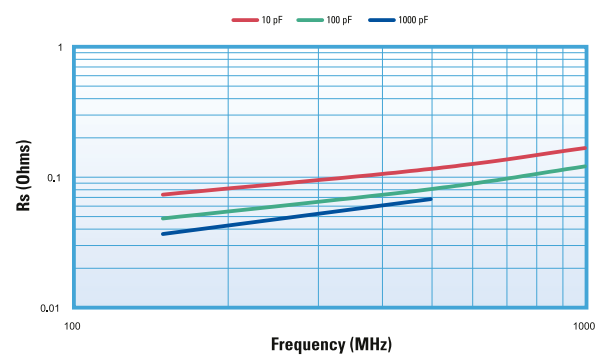
Should be ordered as DLI parts

www.knowlescapacitors.com

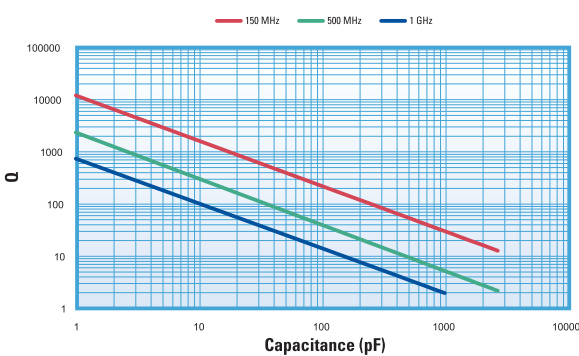
High Q Porcelain Capacitors - CF Series



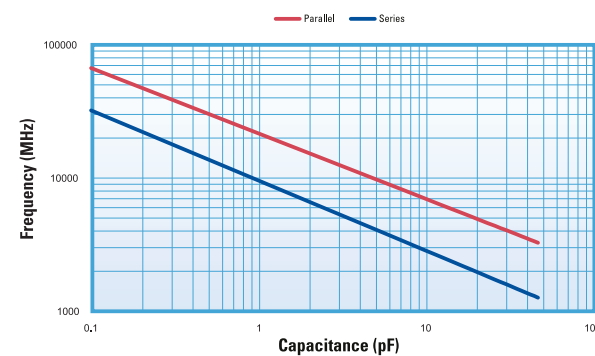
ESR vs Frequency
DLI C22 CF Series



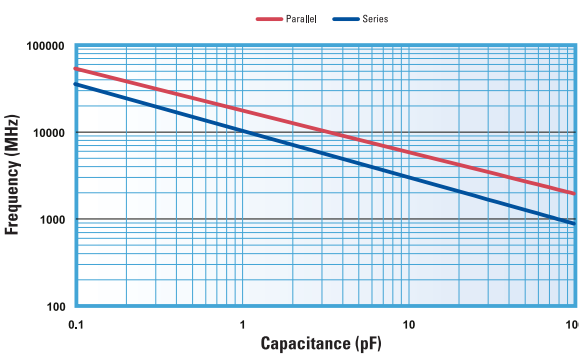
Q vs Capacitance
DLI C22 CF Series



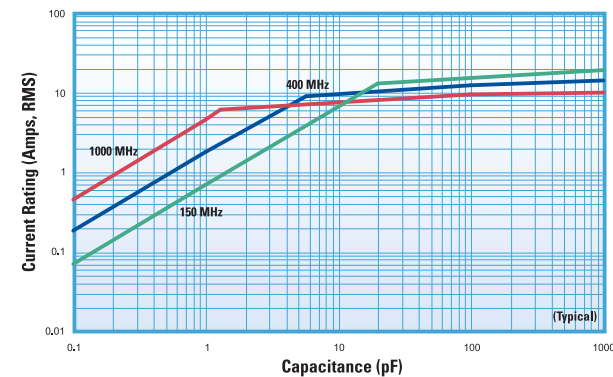
Resonant Frequency vs Capacitance
DLI C06 CF Series



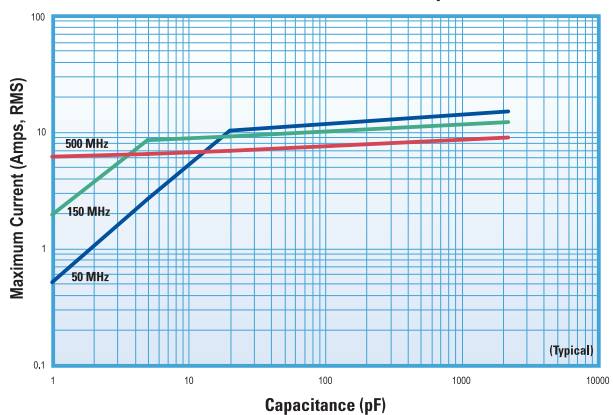
Resonant Frequency vs Capacitance
DLI C11 CF Series



Current Rating vs. Capacitance,
(infinite heat sink, 25°C ambient temperature)
DLI C17CF Series



DLI C22CF Series Current Rating vs. Capacitance,
(infinite heat sink, 25°C ambient temperature)



Note: This information represents typical device performance.

Ordering information - CF Series - See Page 21 for complete part number system.

C17	CF	620	J	-	7	U	N	-	X	0	T
Chip size	Dielectric	Capacitance Code (pF)	Capacitance tolerance		Voltage Code	Termination	Lead Type		Test Level	Marking	Packaging
C06 C11 C17 C18 C22 C40	CF = COG/NPO High Q	1 st two digits are significant figures of capacitance, 3 rd digit denotes number of zeros, R = decimal point. Examples: 1R0 = 1.0pF 471 = 471pF	<10pF A = ±0.05pF B = ±0.1pF C = ±0.25pF D = ±0.5pF ≥10pF F = ±1% G = ±2% J = ±5% K = ±10% M = ±20% X = GMV S = Special		5 = 50V 1 = 100V 6 = 200V 9 = 250V 4 = 500V 7 = 1kV A = 1.5kV G = 2kV B = 2.5kV D = 3.6kV H = 7.2kV	C06 U, S, Z, E, P, Q, Y, W, H, V, R C11/17 T, U, S, Z, E, P, Q, Y, W, H, V, R C18 U, Q, Y, V, W, H, Z C22 U, S, Z, E, P, Q, Y, W, H, V, R C40 T, U, S, P, Q, Y, W, H, V, R	A = Axial ribbon B = Radial ribbon C = Center ribbon D = Special E = Axial wire F = Radial wire N = Chip Note: C06 only available as N (Chip)		X = Standard Y = Reduced Visual A = MIL-PRF-55681 Group A C = MIL-PRF-55681 Group C D = Customer Specified	C06 0, 1, 2, 5 C11 0 C17 0, 1, 2, 5 C18/22/40 0, 1	C06 T, W, B, S C11/17/18 T, V, W, B, P, S C22 T, B, P, S C40 T, B, P, S, R