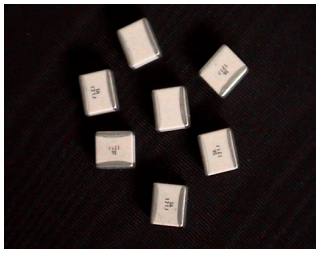
CLX Series

RF Power Capacitors, Ultra Stability

DESCRIPTION

Low ESR/ESL
NP0 Porcelain Capacitors
Excellent characteristics in current, voltage and power with high Q factor



APPLICATIONS

- RF Power Amplifiers
- Industrial (Plasma Chamber)
- Medical (MRI Coils)

CIRCUIT APPLICATIONS

- DC Blocking
- Matching Networks
- Tuning and Coupling

I. ELECTRICAL SPECIFICATIONS

Parameter	*Value*
Capacitance	1 to 2'700 pF
Tolerances	B, C, D below 10 pF F, G, J, K, M above 10 pF
Working Voltage (WVDC)	see Capacitance Value chart
Temperature Coefficient	0 +/-30ppm/°C, -55°C to +125°C
Insulation Resistance	10^5 MΩ min @ 25°C at rated WVDC 10^4 MΩ min @ 125°C at rated WVDC
Dielectric Withstanding (test voltage applied for 5 seconds)	2.0 x WVDC for WVDC ≤ 500V 1.5 x WVDC for 500V < WVDC ≤ 2'500V 1.3 x WVDC for WVDC > 2'500V
Aging	none
Piezo Effects	none

II. MECHANICAL SPECIFICATIONS

Parameter	*Value*	*Comment*
Case Size	X	2225

NB:
- all the terminations are backward compatible and lead-free.
- the non-magnetic terminations are all Magnetism-free Rated.

MR certified®

ITAR Free®

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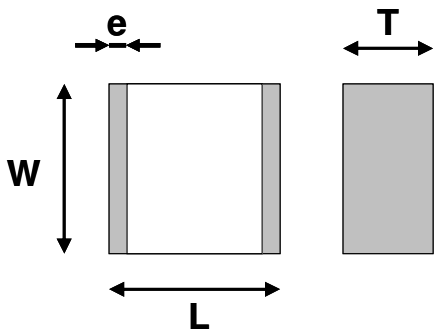
Termination Type	Code	CLX
Standard (tin-plated nickel)	S	**AVAILABLE**
Non-magnetic (tin-plated copper)	C	**AVAILABLE**

III. ENVIRONMENTAL SPECIFICATIONS

Parameter	Value
Life Test	2'000 hours, +125°C at 1.5 x WVDC (WVDC≤500V) at 1.3 x WVDC (500V<WVDC<1'250V) at 1.0 x WVDC (1'250V≤WVDC)
Moisture Resistance Test 1	240 hours, 85% relative humidity at +85°C (ESA/SCC n°3009)
Moisture Resistance Test 2	56 days, 93% relative humidity at +40°C 0V, 5V, WVDC

IV. OUTLINE DIMENSIONS

Parameter	X (2225)
Length (L)	6.20 ±0.50 mm
Width (W)	6.60 ±0.50 mm
Thickness (T)	3.80 mm (max.)
End-Band (e)	0.80 ±0.60mm



CLX Series

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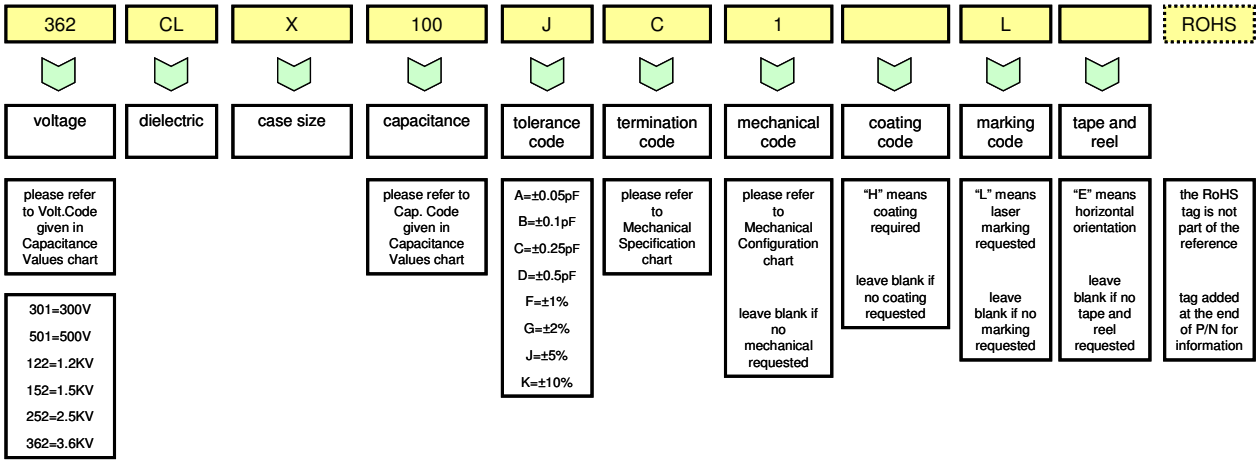
V. How to order



NB:
- for capacitance values lower than 10pF, tolerances A, B, C and D apply. For capacitance values equal to or higher than 10pF, tolerances F, G, J and K apply.

VI. Tape and Reel

The following chart gives the number of components per reel.

	CLX
Parts per Reel	500

CLX Series

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VII. Capacitance Values

Value (pF)	Cap. Code	X (2225)		Value (pF)	Cap. Code	X (2225)	
		Standard	Extended			Standard	Extended
1.0	1R0	2500V	3600V	56	560	2500V	3600V
1.1	1R1			62	620		
1.2	1R2			68	680		
1.3	1R3			75	750		
1.4	1R4			82	820		
1.5	1R5			91	910		
1.6	1R6			100	101		
1.7	1R7			110	111		
1.8	1R8			120	121		
1.9	1R9			130	131		
2.0	2R0			150	151		
2.1	2R1			160	161		
2.2	2R2			180	181		
2.4	2R4			200	201		
2.7	2R7			220	221		
3.0	3R0			240	241		
3.3	3R3			270	271		
3.6	3R6			300	301	1500V	
3.9	3R9			330	331		
4.3	4R3			360	361		
4.7	4R7			390	391		
5.1	5R1			430	431		
5.6	5R6			470	471		
6.2	6R2			510	511	1200V	
6.8	6R8			560	561		
7.5	7R5			620	621		
8.2	8R2			680	681		
9.1	9R1			750	751		
10	100			820	821		
11	110			910	911		
12	120			1 000	102		
13	130			1 100	112		
15	150			1 200	122		
16	160			1 500	152	500V	
18	180			1 800	182		
20	200			2 200	222	300V	
22	220			2 700	272		
24	240			3 000	302		
27	270			3 300	332		
30	300			3 900	392		
33	330			4 700	472		
36	360			5 100	512		
39	390			5 600	562		
43	430			6 800	682		
47	470			8 200	822		
51	510			10 000	103		

NB: special values, tolerances, higher WVDC and matching available, please consult factory.

CLX Series

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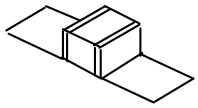
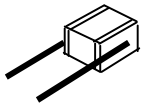
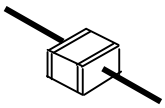
VIII. MECHANICAL CONFIGURATIONS

VIII.1. Lead/Ribbon and Wire Types

Configuration Type	Code	Description
	1	Micro-strip Ribbon
	6	Radial Wire
	7	Axial Wire

NB: when coding ribbons or wires for the description of the part, the termination has to be mentionned for $MR_{certified}$ types to ensure that only non-magnetic materials are used.

Examples :	252 CLX 470 J1L	any termination material could be used
	252 CLX 470 JC1L	only non-magnetic termination materials could be used

CLX Series

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VIII.2. Lead/Ribbon and Wire Matrix

Termination Type	*Code*	*CLX*
Micro-strip Ribbon	1	**AVAILABLE**
Radial Wire	6	**AVAILABLE**
Axial Wire	7	**AVAILABLE**

VIII.3. Leads/Ribbons and Wires Dimensions

Within each cell, first the length and then the width/diameter of any single ribbon or wire are given.

Termination Type	*Code*	*CLX*
Micro-strip Ribbon	1	12.00 5.40
Radial Wire	6	30.00 0.60
Axial Wire	7	30.00 0.60

NB: dimensions are in mm.

CLX Series

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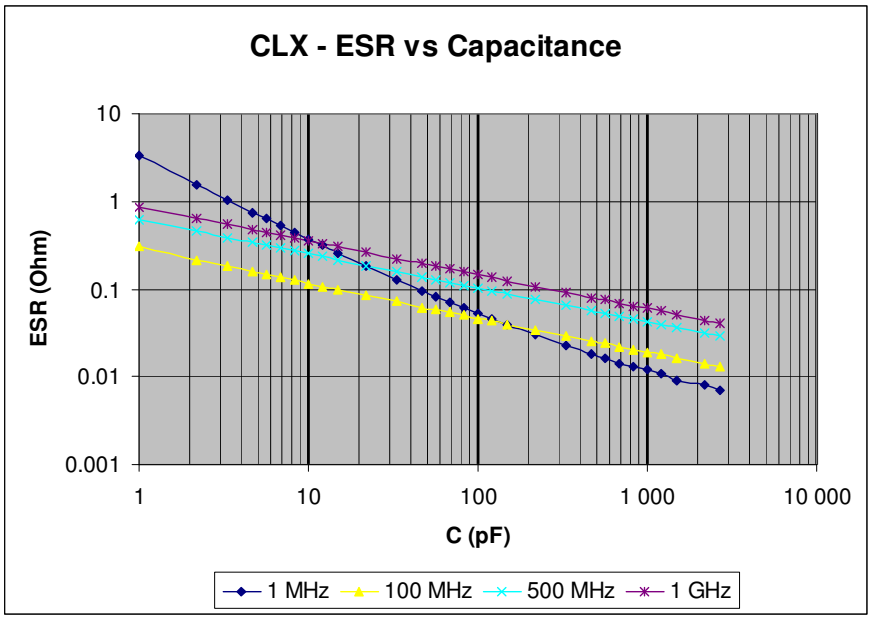
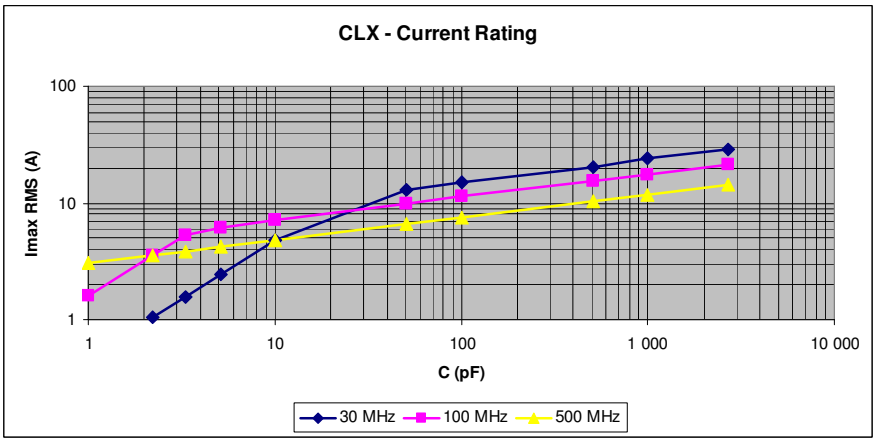
IX. Performance Data

IX.1. ESR



IX.2. Current Rating



CLX Series

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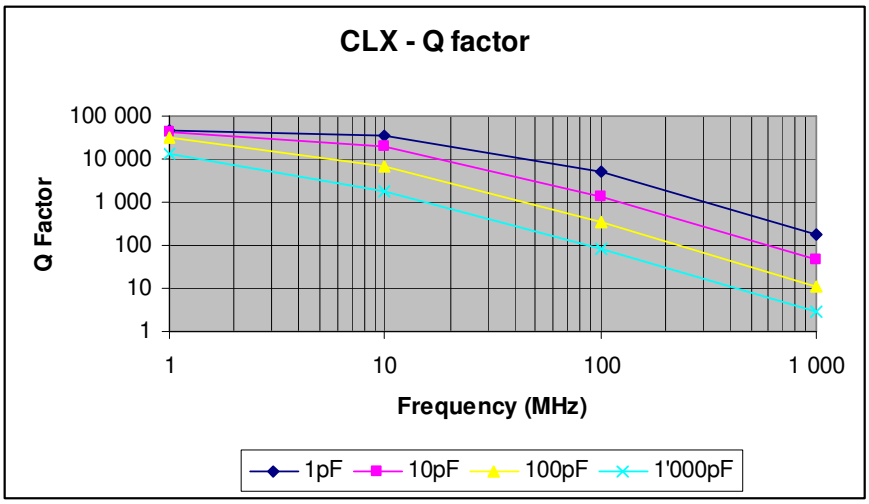
IX.3. Q Factor



IX.4. Series Resonance Frequency