

CHA Series

RF & Microwave Capacitors, RoHS Compliant

DESCRIPTION

Low ESR, Ultra High-Q
 Highest working voltage in class - 200V
 Porcelain Capacitors
 Laser Marked (optional)
 High Self-Resonance Frequencies



APPLICATIONS

- Cellular Base Station Amplifiers
- Industrial
- Medical (MRI)
- Scientific

CIRCUIT APPLICATIONS

- DC to RF Conversion
- Matching Networks
- Tuning, Coupling and DC Blocking

I. ELECTRICAL SPECIFICATIONS

Parameter	Value
Capacitance	0.1 to 100 pF
Tolerances	A, B, C, D below 10 pF F, G, J, K, M above 10 pF
Working Voltage (WVDC)	see Capacitance Value chart
Temperature Coefficient	100 +/-30ppm/°C, -55°C to +125°C
Insulation Resistance	10 ⁶ MΩ min
Dielectric Withstanding (test voltage applied for 5 seconds)	2.5 x WVDC for WVDC ≤ 500V
Aging	none
Piezo Effects	none

II. MECHANICAL SPECIFICATIONS

Parameter	Value	Comment
Case Size	A	0505

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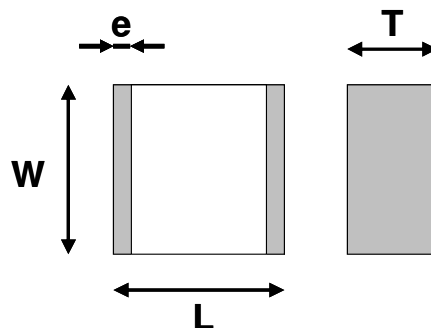
Termination Type	Code	CHA
Standard (tin-plated nickel)	S	AVAILABLE
Non-magnetic (tin-plated copper)	C	AVAILABLE

III. ENVIRONMENTAL SPECIFICATIONS

Parameter	Value
Life Test	2'000 hours, +125°C at 2.0 x WVDC (standard WVDC range)
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

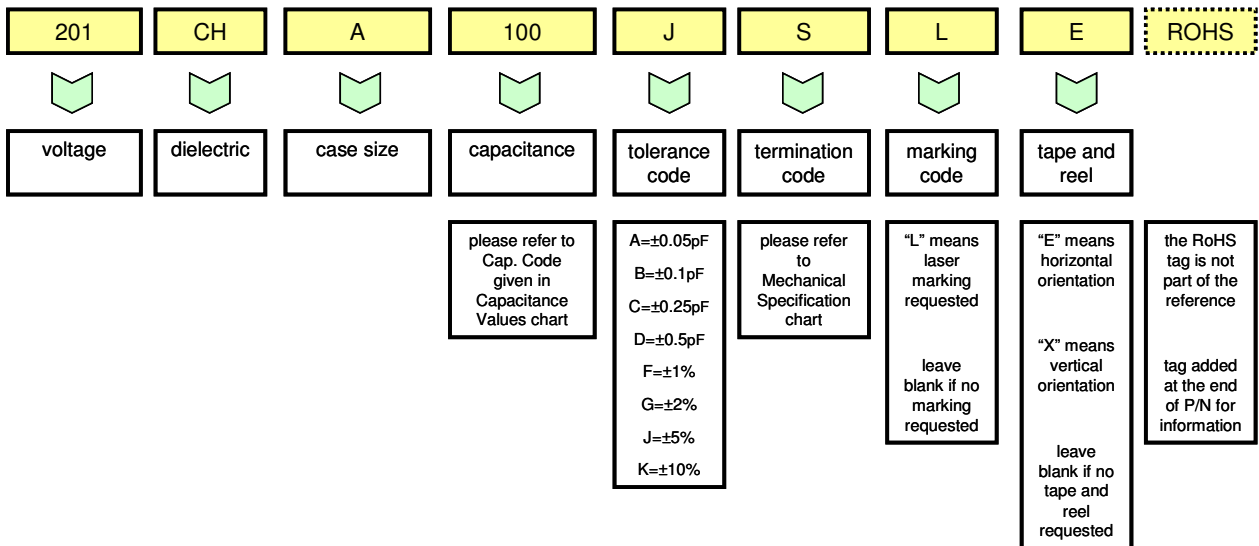
Parameter	A (0505)
Length (L)	1.40 ±0.25mm
Width (W)	1.40 ±0.25mm
Thickness (T)	1.40 mm (max.)
End-Band (e)	0.25 ±0.15mm



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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.

	CHA
Parts per Reel	3'000

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VII. CAPACITANCE VALUES

Value (pF)	Cap. Code	A (0505)	Value (pF)	Cap. Code	A (0505)
0.1	0R1	200V	5.6	5R6	200V
0.2	0R2		6.2	6R2	
0.3	0R3		6.8	6R8	
0.4	0R4		7.5	7R5	
0.5	0R5		8.2	8R2	
0.6	0R6		9.1	9R1	
0.7	0R7		10	100	
0.8	0R8		11	110	
0.9	0R9		12	120	
1.0	1R0		13	130	
1.1	1R1		15	150	
1.2	1R2		16	160	
1.3	1R3		18	180	
1.4	1R4		20	200	
1.5	1R5		22	220	
1.6	1R6		24	240	
1.7	1R7		27	270	
1.8	1R8		30	300	
1.9	1R9		33	330	
2.0	2R0		36	360	
2.1	2R1		39	390	
2.2	2R2		43	430	
2.4	2R4		47	470	
2.7	2R7		51	510	
3.0	3R0		56	560	
3.3	3R3		62	620	
3.6	3R6		68	680	
3.9	3R9		75	750	
4.3	4R3		82	820	
4.7	4R7		91	910	
5.1	5R1	100	101		

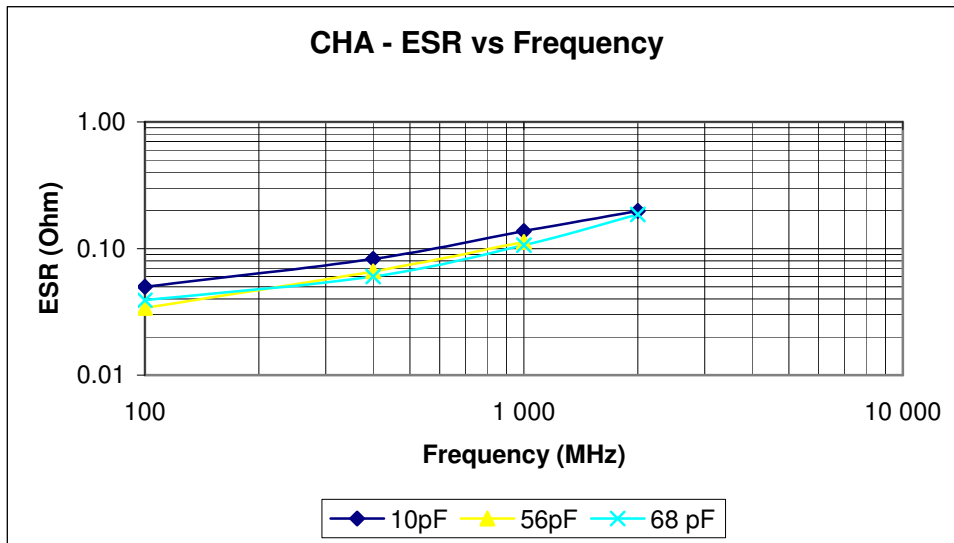
NB: special values, tolerances, higher WVDC and matching available, please consult factory.

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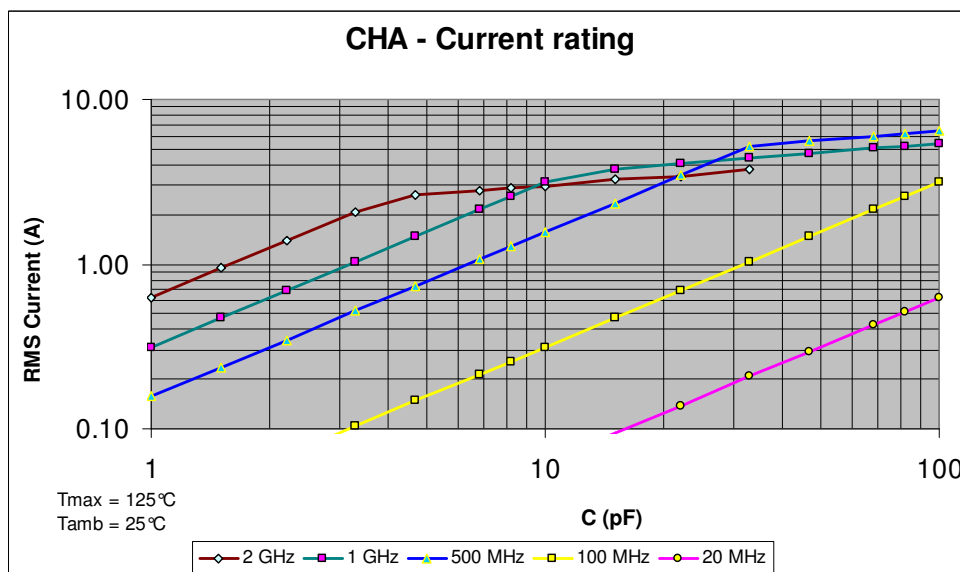
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VIII. PERFORMANCE DATA

VIII.1. ESR



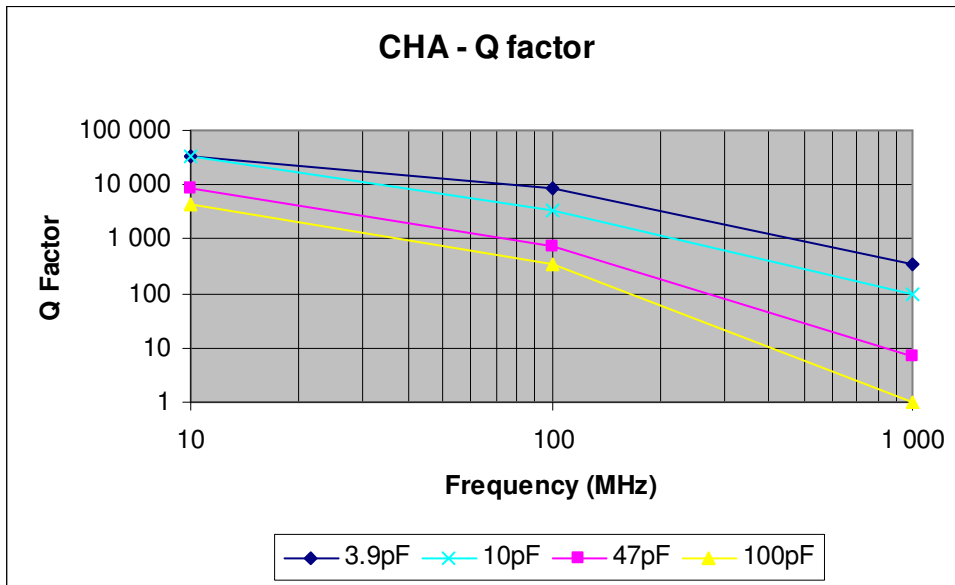
VIII.2. Current Rating



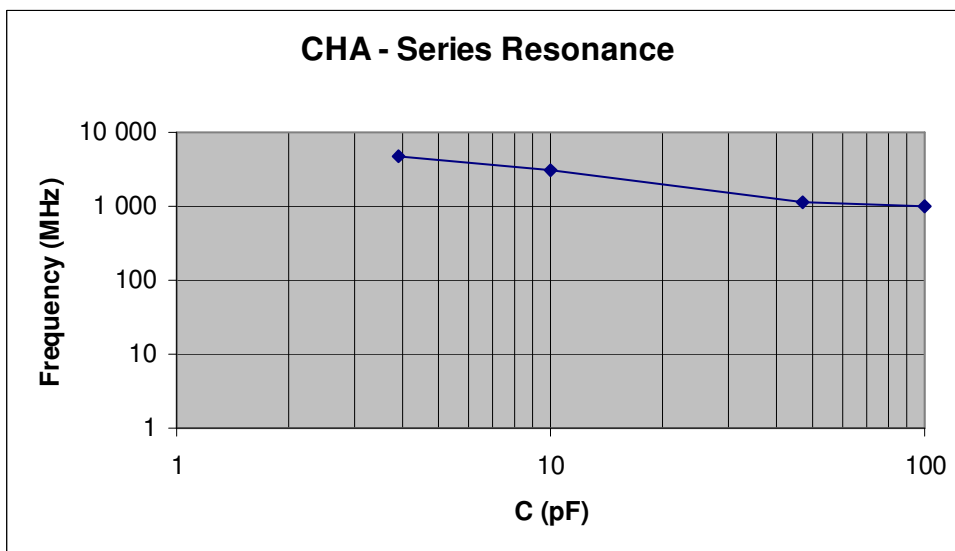
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VIII.3. Q Factor



VIII.4. Series Resonance Frequency



TEMEX CERAMICS reserves the right to modify herein specifications and information at any time when necessary to provide optimum performance and cost.