

# SHF Series

## RF & Microwave Capacitors, NP0, RoHS

### DESCRIPTION

Lowest ESR in class  
 Highest working voltage in class - 500V  
 Standard EIA size  
 High Self Resonance Frequencies



### APPLICATIONS

- Cellular Base Station Equipment
- Broadband Wireless Service
- Point to Point/Multipoint Radios
- RF Generators (NMR...)

### CIRCUIT APPLICATIONS

- Filter Networks
- Matching Networks
- Tuning, Coupling and DC Blocking

## I. ELECTRICAL SPECIFICATIONS

Parameter	Value
Capacitance	0.3 to 220 pF
Tolerances	A, B, C, D below 10 pF F, G, J, K above 10 pF
Working Voltage (WVDC)	see Capacitance Value chart
Temperature Coefficient	0 +/-30ppm/°C, -55°C to +125°C
Insulation Resistance	10 <sup>5</sup> MΩ min
Dielectric Withstanding	2.5 x WVDC for 5 seconds
Aging	none
Piezo Effects	none

## II. MECHANICAL SPECIFICATIONS

Parameter	Value	Comment
Case Size	F	0805

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	SHF
Standard (tin-plated nickel)	S	AVAILABLE
Non-magnetic (silver-palladium)	A	AVAILABLE <sup>(1)</sup>

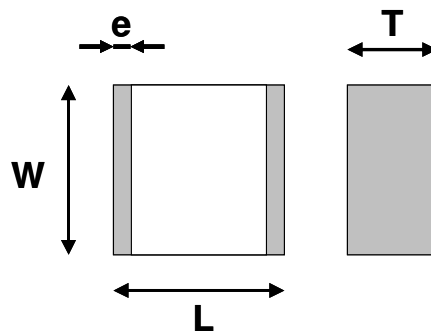
(1): limited range between 0.5pF and 150pF. For higher capacitance values, please consult factory.

### III. ENVIRONMENTAL SPECIFICATIONS

Parameter	Value
Life Test	1'000 hours, +125 °C at 2.0 x 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

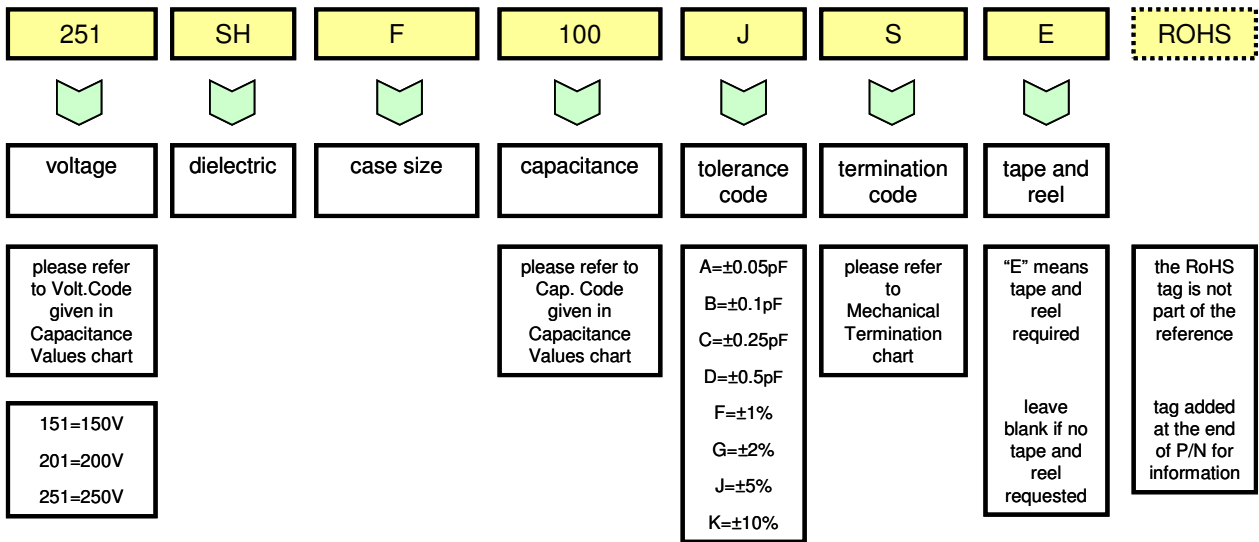
Parameter	F (0805)
Length (L)	2.03 ±0.25mm
Width (W)	1.27 ±0.25mm
Thickness (T)	1.27 mm (max.)
End-Band (e)	0.50 ±0.30mm



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### V. HOW TO ORDER



NB:

- for capacitance values lower than 10pF, tolerances B, C and D apply. For capacitance values equal to or higher than 10pF, tolerances F, G, J and K apply. Also, the A tolerance is only available up to 2pF inclusive (please consult us for specific requirements).

### VI. TAPE AND REEL

The following chart gives the number of components per reel.

	SHF
Parts per Reel	4'000

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### VII. CAPACITANCE VALUES

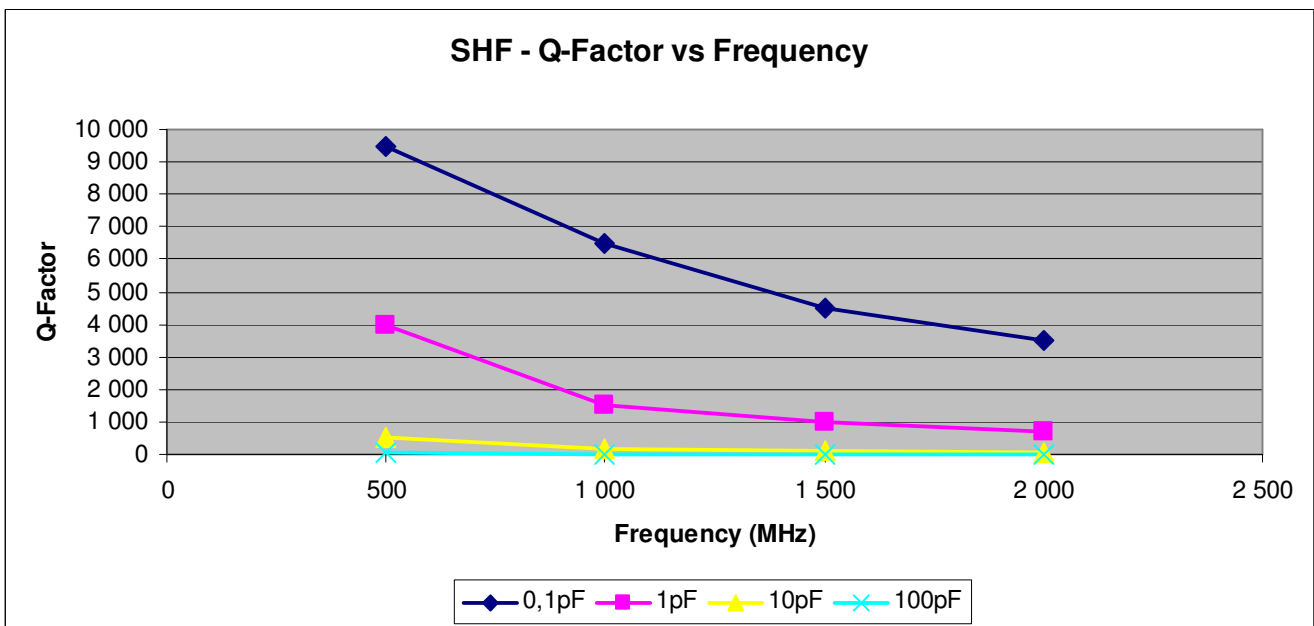
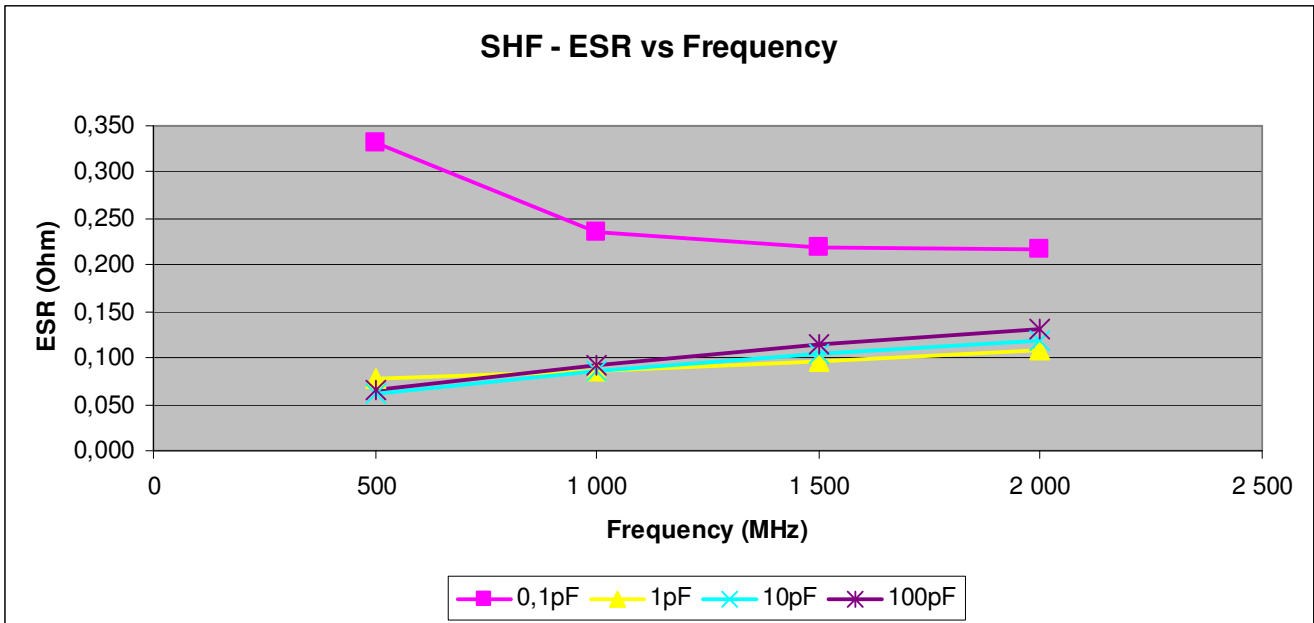
Value (pF)	Cap. Code	F (0805)	Value (pF)	Cap. Code	F (0805)
0.3	0R3	250V	9.1	9R1	250V
0.4	0R4		10	100	
0.5	0R5		11	110	
0.6	0R6		12	120	
0.7	0R7		13	130	
0.8	0R8		15	150	
0.9	0R9		16	160	
1.0	1R0		18	180	
1.1	1R1		20	200	
1.2	1R2		22	220	
1.3	1R3		24	240	
1.4	1R4		27	270	
1.5	1R5		30	300	
1.6	1R6		33	330	
1.7	1R7		36	360	
1.8	1R8		39	390	
1.9	1R9		43	430	
2.0	2R0		47	470	
2.1	2R1		51	510	
2.2	2R2		56	560	
2.4	2R4		62	620	
2.7	2R7		68	680	
3.0	3R0		75	750	
3.3	3R3		82	820	
3.6	3R6		91	910	
3.9	3R9		100	101	
4.3	4R3		110	111	
4.7	4R7		120	121	
5.1	5R1		130	131	
5.6	5R6		150	151	
6.2	6R2		160	161	
6.8	6R8		180	181	
7.5	7R5	200	201		
8.2	8R2	220	221		

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

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### VIII. TYPICAL PERFORMANCE DATA



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