

# SHS Series

## RF & Microwave Capacitors, NP0, RoHS

### DESCRIPTION

Lowest ESR in class  
 Highest working voltage in class - 250V  
 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	0.2 to 100 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	S	0603

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	SHS
Standard (tin-plated nickel)	S	AVAILABLE
Non-magnetic (tin-plated copper)	C	AVAILABLE <sup>(1)</sup>

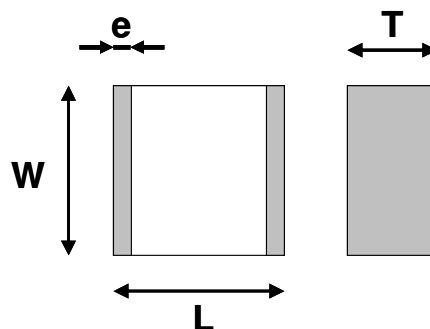
(1): limited range up to 39pF for SHS with copper terminations. For higher capacitance values, please consult factory.

### 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

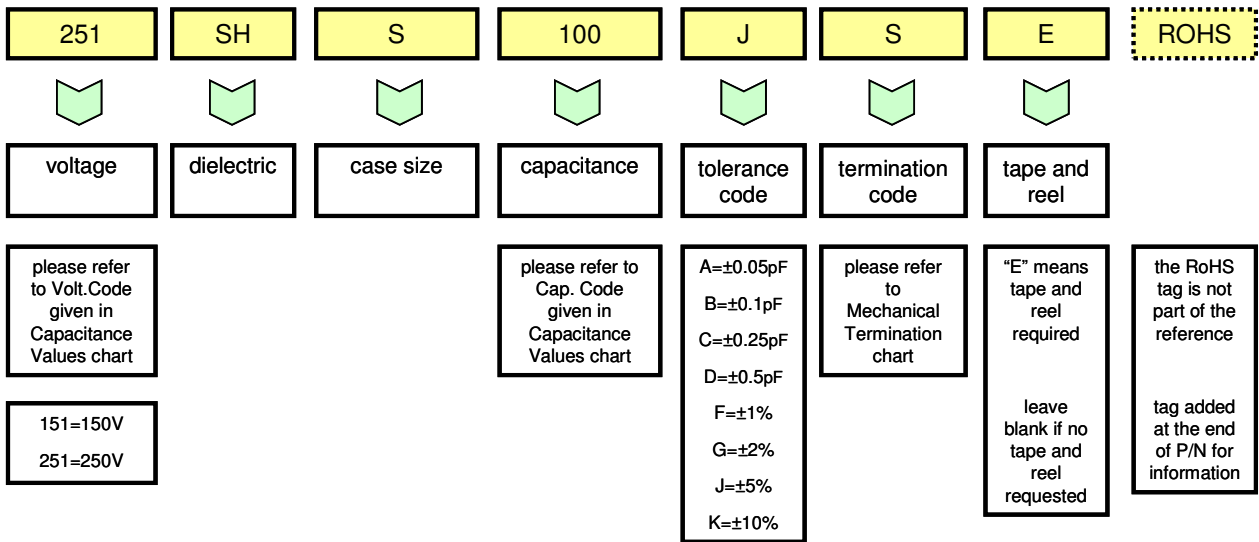
Parameter	S (0603)
Length (L)	1.60 ±0.25mm
Width (W)	0.80 ±0.25mm
Thickness (T)	0.90 mm (max.)
End-Band (e)	0.35 ±0.20mm



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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.

	SHS
Parts per Reel	4'000

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### VII. CAPACITANCE VALUES

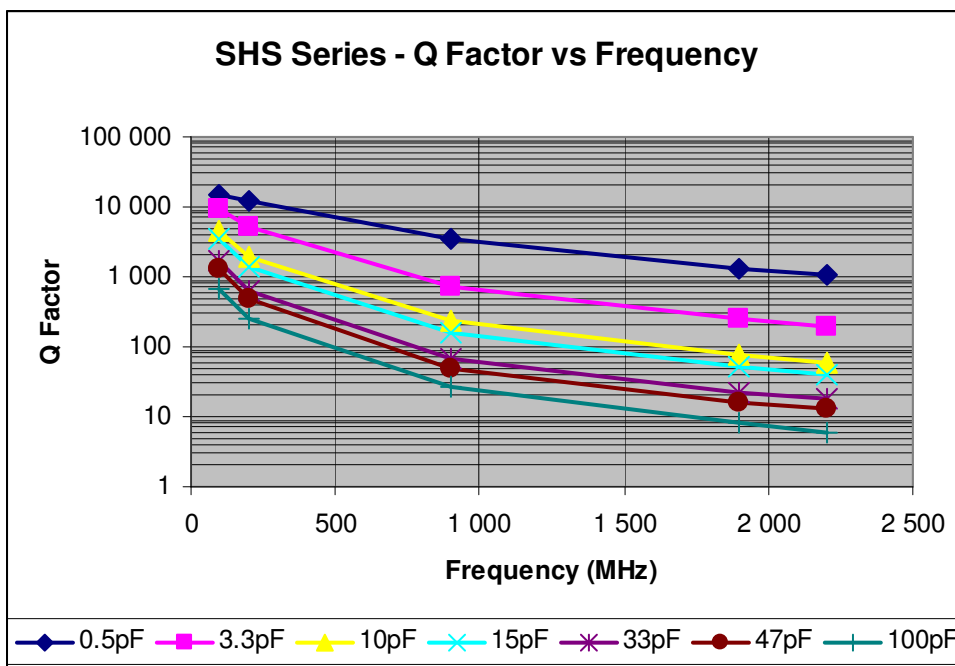
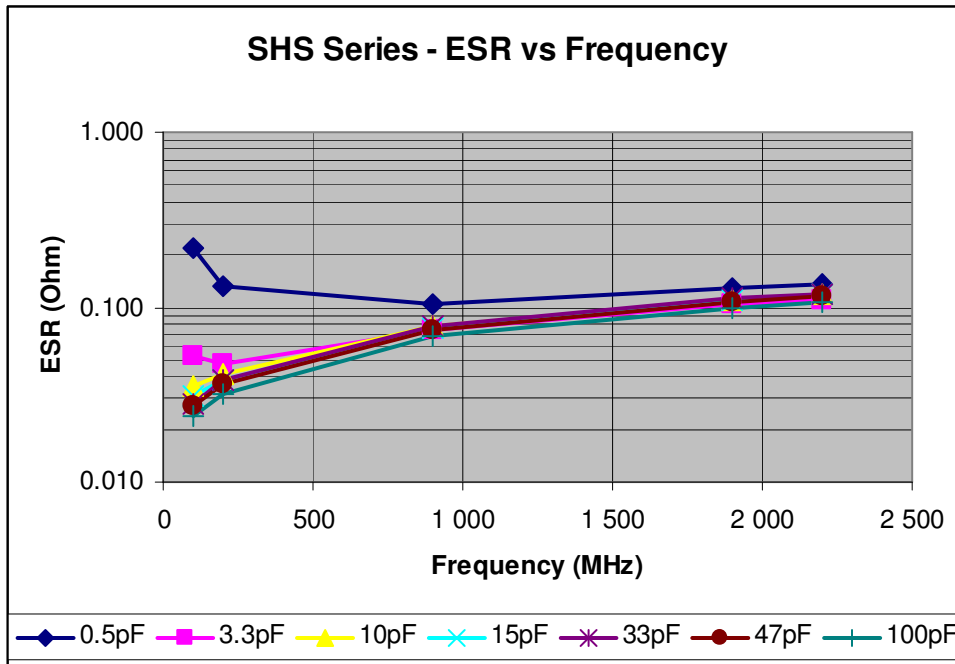
Value (pF)	Cap. Code	S (0603)	Value (pF)	Cap. Code	S (0603)
0.2	0R2	250V	5.6	5R6	250V
0.3	0R3		6.2	6R2	
0.4	0R4		6.8	6R8	
0.5	0R5		7.5	7R5	
0.6	0R6		8.2	8R2	
0.7	0R7		9.1	9R1	
0.8	0R8		10	100	
0.9	0R9		11	110	
1.0	1R0		12	120	
1.1	1R1		15	150	
1.2	1R2		16	160	
1.3	1R3		18	180	
1.4	1R4		20	200	
1.5	1R5		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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### 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.