

Reverse-Geometry, Ultra Low ESL, NP0

RF & Microwave Capacitors, RoHS Compliant

DESCRIPTION

Reverse-Geometry MLCC
 Lowest ESR in class
 Highest working voltage in class - 500V
 Laser Marked (optional)
 Very High Self Resonance Frequencies



APPLICATIONS

- Cellular Base Station Equipment
- Broadband Wireless Service
- Point to Point/Multipoint Radios
- Broadcasting Equipment

CIRCUIT APPLICATIONS

- Impedance Matching
- Bypass, Feedback
- Tuning, Coupling and DC Blocking

I. ELECTRICAL SPECIFICATIONS

Parameter	Value
Capacitance	0.5 to 100 pF
Tolerances	B, C, D below 10 pF 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
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	R	0709

NB: all the terminations are backward compatible and lead-free.

Termination Type	Code	SHR
Standard (tin-plated nickel)	S	AVAILABLE

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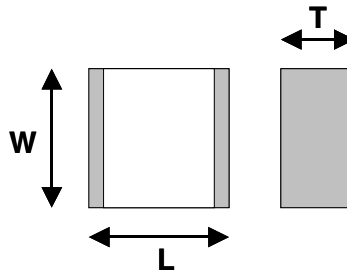
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III. ENVIRONMENTAL SPECIFICATIONS

Parameter	Value
Life Test	2'000 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	R (0709)
Length (L)	1.78 ±0.38mm
Width (W)	2.29 ±0.25mm
Thickness (T)	2.67 mm (max.)



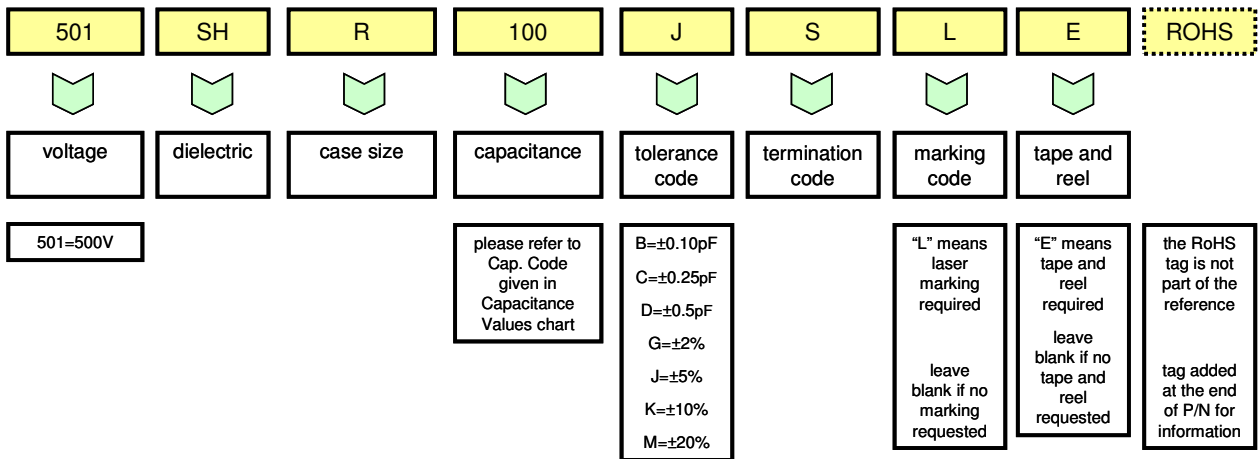
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V. HOW TO ORDER



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

VI. TAPE AND REEL

The following chart gives the number of components per reel.

	SHR
Parts per Reel	1'000

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VII. CAPACITANCE VALUES

Value (pF)	Cap. Code	R (0709)
0.5	0R5	500V
0.6	0R6	
0.7	0R7	
0.8	0R8	
0.9	0R9	
1.0	1R0	
1.1	1R1	
1.2	1R2	
1.3	1R3	
1.4	1R4	
1.5	1R5	
1.6	1R6	
1.7	1R7	
1.8	1R8	
1.9	1R9	
2.0	2R0	
2.1	2R1	
2.2	2R2	
2.4	2R4	
2.7	2R7	
3.0	3R0	
3.3	3R3	
3.6	3R6	
3.9	3R9	
4.3	4R3	
4.7	4R7	
5.1	5R1	
5.6	5R6	
6.2	6R2	
6.8	6R8	
7.5	7R5	
8.2	8R2	
9.1	9R1	
10	100	
11	110	
12	120	
15	150	
16	160	
18	180	
20	200	
22	220	
24	240	
27	270	
30	300	
33	330	
36	360	
39	390	
43	430	
47	470	
51	510	
56	560	
62	620	
68	680	
75	750	
82	820	
91	910	
100	101	

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

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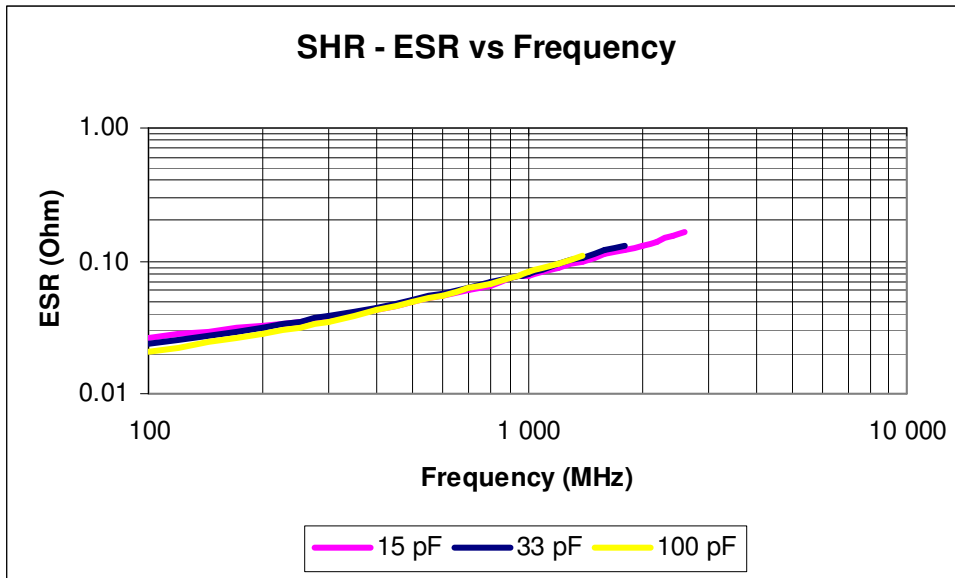
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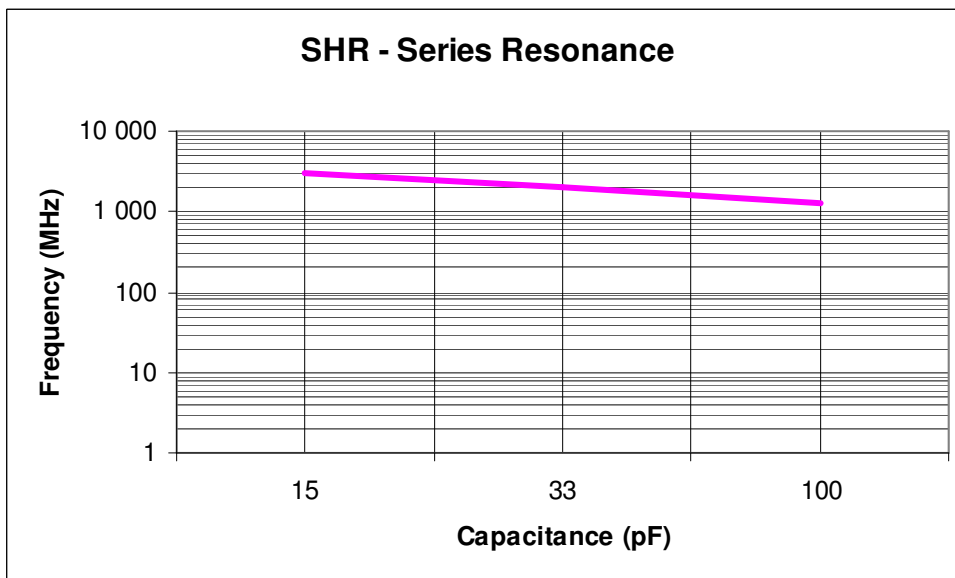
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VIII. TYPICAL PERFORMANCE DATA

VIII.1. CAPACITANCE IN R SIZE (0709): EQUIVALENT SERIES RESISTANCE



VIII.2. CAPACITANCE IN R SIZE (0709): SERIES RESONANCE FREQUENCY



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