

1111N(.110 x .110)
◆ 1111N Capacitance & Rated Voltage Table

Cap.pF	Code	Tol.	WVDC V	Cap.pF	Code	Tol.	WVDC V	Cap.pF	Code	Tol.	WVDC V	Cap.pF	Code	Tol.	WVDC V
0.5	0R5			3.3	3R3			24	240			180	181		300
0.6	0R6			3.6	3R6			27	270			200	201		Code 301
0.7	0R7			3.9	3R9			30	300			220	221		
0.8	0R8			4.3	4R3			33	330			240	241		
0.9	0R9			4.7	4R7	A,		36	360			270	271		200
1.0	1R0			5.1	5R1	B,		39	390			300	301		Code
1.1	1R1			5.6	5R6	C,		43	430			330	331		201
1.2	1R2			6.2	6R2	D		47	470	F,	500	360	361		
1.3	1R3		500	6.8	6R8		500	51	510	G,	Code	390	391		
1.4	1R4	A,	501	7.5	7R5		501	56	560	J,	501	430	431		
1.5	1R5	B,		8.2	8R2			62	620	K,		470	471	F,	
1.6	1R6	C,		9.1	9R1			68	680	M		510	511	G,	100
1.7	1R7	D		10	100			75	750			560	561	J,	Code
1.8	1R8			11	110	F,		82	820			620	621	K,	101
1.9	1R9			12	120	G,		91	910			680	681	M	
2.0	2R0			13	130	J,		100	101			750	751		50
2.1	2R1			15	150	K,		110	111			820	821		Code
2.2	2R2			16	160	M		120	121		300	910	911		500
2.4	2R4			18	180			130	131		301	1000	102		
2.7	2R7			20	200			150	151						
3.0	3R0			22	220			160	161						

Remark: special capacitance, tolerances and WVDC are available, consult with PASSIVE PLUS.

◆ Performance

Quality Factor (Q)	2,000 min.
Insulation Resistance (IR)	10 ⁵ Megohms min. @ +25°C at rated WVDC. 10 ⁴ Megohms min. @ +125°C at rated WVDC.
Rated Voltage	250V
Dielectric Withstanding Voltage(DWV)	250% of rated Voltage for 5 seconds.
Operating Temperature Range	-55°C to +125°C
Temperature Coefficient (TC)	0 ± 30ppm/°C
Capacitance Drift	± 0.02% or ± 0.02pF, whichever is greater.
Piezoelectric Effects	None

◆ Environmental Tests

Item	Specifications	Method
Terminal Adhesion	Termination should not pull off, Ceramic should remain undamaged.	Linear pull force exerted on axial leads soldered to each terminal. 2.0lbs.
Resistance to soldering heat	No mechanical damage Capacitance change: - 1.0% ~ +2.0% Q>500 I.R. >10 G Ohms Breakdown voltage: 2.5 x WVDC	Preheat device to 150°C-180°C for 60 sec. Dip in 260°±5°C solder for 10±1 sec. Measure after 24±2 hour cooling period
Thermal shock	No mechanical damage Capacitance change:±0.5% or 0.5pF max Q>500 I.R. >10 G Ohms Breakdown voltage: 2.5 x WVDC	MIL-STD-202, Method 107, Condition A. At the maximum rated temperature(-55°C and 125°C) stay 30 minutes, The time of removing shall be not more than 3 minutes. Perform the five cycles.
Humidity, Steady state	No mechanical damage Capacitance change: ±0.5% or 0.5pF max. Q>300 I.R. >1 G Ohms Breakdown voltage: 2.5 x WVDC	MIL-STD-202, Method 106.
Low voltage humidity	No mechanical damage Capacitance change: ±0.3% or 0.3pF max. Q>300 I.R. >1 G Ohms Breakdown voltage: 2.5 x WVDC	MIL-STD-202, Method 103, Condition A, with 1.5 Volts D.C. applied while subjected to an environment of 85°C with 85% relative humidity for 240 hours min.
Life	No mechanical damage Capacitance change: ±2.0% or 0.5pF max. Q>500 I.R. >1 G Ohms Breakdown voltage: 2.5 x WVDC	MIL-STD-202, Method 108, for 1000 hours, at 125°C. 200% Rated voltage D.C. applied.

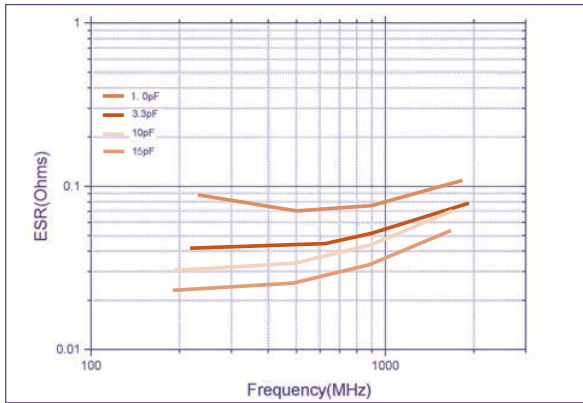
◆ 1111N Chip Dimensions

unit:inch(millimeter)

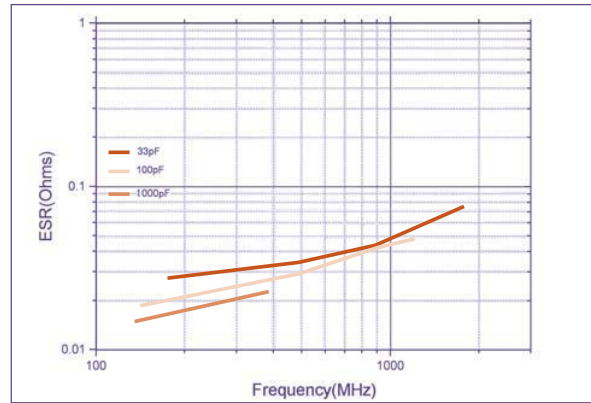
	Length	width	Thickness
1111N Chip Dimensions	.080 ± .01 (2.0+0.25~-0.25)	.050 ± .01 (1.2 ± 0.25)	.057(1.45) max

◆ 1111N Performance Curve

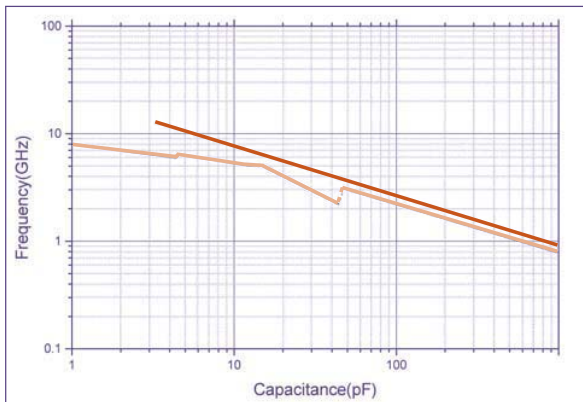
ESR VS Frequency



ESR VS Frequency



Series Resonant Frequency VS Capacitor



Ultra Low ESR



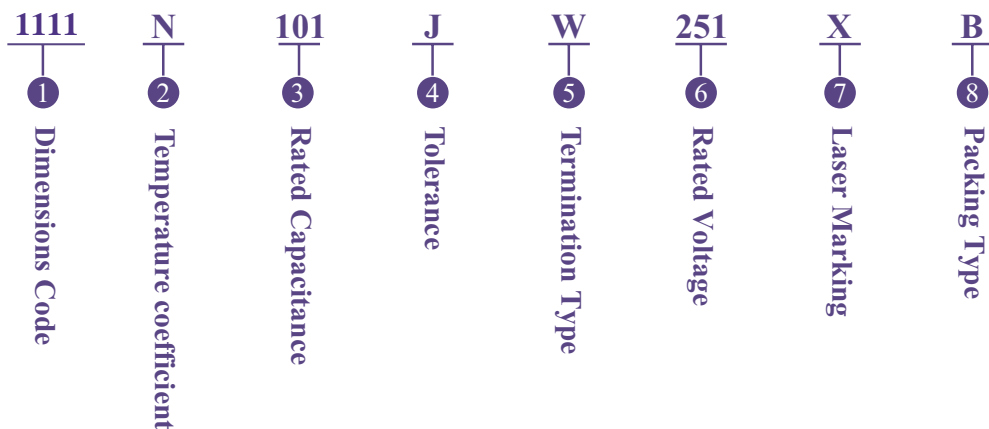
◆ Product Features

Lowest ESR, Highest working voltage, High self resonance frequencies (to25GHz).

◆ Product Application

Base station Products, L/C Filter.

◆ Part Numbering



① Dimensions Code

unit: inch(millimeter)

	0402N	0603N	0805N	1111N
Length	.040 ± .004 (1.02 ± 0.1)	.06 ± .006 (1.52 ± 0.15)	.08 ± .010 (2.0+0.25~-0.25)	0.110 +.020~- .010 (2.79 +0.51~-0.25)
width	.020 ± .004 (0.51 ± 0.1)	.030 ± .006 (0.81 ± 0.15)	.05 ± .010 (1.2 ± 0.25)	.110 ± .010 (2.79 ± 0.25)
Thickness	.020 ± .004 (0.51 ± 0.1)	.03+.005~- .003 (0.76+0.13~ -0.08)	.057(1.45)max	.10(2.6)max

② Temperature coefficient: 0 ± 30ppm/°C

③ Rated Capacitance

Capacitance is less than 10pF; for example: 1R0=1.0pF, R denote point.

Capacitance is not less than 10pF; for example: 101=100pF, The third number is the power of 10.

④ Tolerance

Code	A	B	C	D	F	G	J	K	M
Tolerance	± 0.05pF	± 0.1pF	± 0.25pF	± 0.5pF	± 1%	± 2%	± 5%	± 10%	± 20%

⑤ Termination Type

Code	W
Type	Nickel, Plated 100% Sn(RoHS)

⑥ Rated voltage

Code	Rated Voltage
500	50V
251	250V

⑦ Laser Marking

X denote Marking; N denote No-Marking.

⑧ Packaging Type

	0402N	0603N	0805N	1111N
T:Tape carrier packaging	√	√	√	√
B:Bulk packaging in a bag		√	√	√

Quantity per Reel:1000,2000,3000,4000pcs/reel

◆ Performance Requirements

Capacitors are designed and manufactured to meet the requirements of MIL-C-55681 and MIL-C-123.

◆ All of products are in compliance with RoHS instruction.