

1111N (.110 x .110)

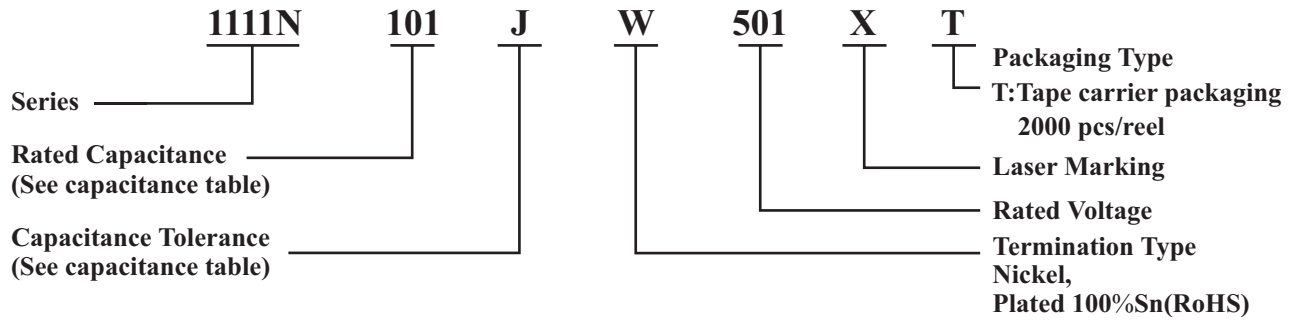


◆1111N Capacitance & Rated Voltage Table

Cap.pF	Code	Tol.	WVDC V	Cap.pF	Code	Tol.	WVDC V	Cap.pF	Code	Tol.	WVDC V	Cap.pF	Code	Tol.	WVDC V
0.2	0R2	A, B, C, D	500V Code 501 or 1000V Code 102	2.7	2R7	A, B, C, D	500V Code 501 or 1000V Code 102	22	220	F, G, J, K, M	500V Code 501 or 1000V Code 102	180	181	F, G, J, K, M	300 Code 301
0.3	0R3			3.0	3R0			24	240			200	201		200V Code 201
0.4	0R4			3.3	3R3			27	270			220	221		
0.5	0R5			3.6	3R6			30	300			240	241		
0.6	0R6			3.9	3R9			33	330			270	271		
0.7	0R7			4.3	4R3			36	360			300	301		
0.8	0R8			4.7	4R7			39	390			330	331		
0.9	0R9			5.1	5R1			43	430			360	361		
1.0	1R0			5.6	5R6			47	470			390	391		
1.1	1R1			6.2	6R2			51	510			430	431		
1.2	1R2			6.8	6R8			56	560			470	471		
1.3	1R3			7.5	7R5			62	620			510	511		100V Code 101
1.4	1R4			8.2	8R2			68	680			560	561		
1.5	1R5			9.1	9R1			75	750			620	621		
1.6	1R6			10	100			82	820			680	681		
1.7	1R7	11	110	91	910	750	751	50V Code 500							
1.8	1R8	12	120	100	101	820	821								
1.9	1R9	13	130	110	111	910	911								
2.0	2R0	15	150	120	121	1000	102								
2.1	2R1	16	160	130	131										
2.2	2R2	18	180	150	151										
2.4	2R4	20	200	160	161										

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


◆Part Numbering



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

◆1111N Chip Dimensions

unit:inch(millimeter)

Series	Term. Code	Type / Outlines	Capacitor Dimensions			Plated Material
			Length (L _c)	Width (W _c)	Thickness (T _c)	
1111N	W	 Chip	0.110+.020~ -.010 (2.79+0.51~ -.25)	.110±.010 (2.79±0.25)	.10(2.6) max	Sn/Ni (RoHS)

Remark: for Non-Magnetic NP0 products please refer to page 81.

◆ Performance

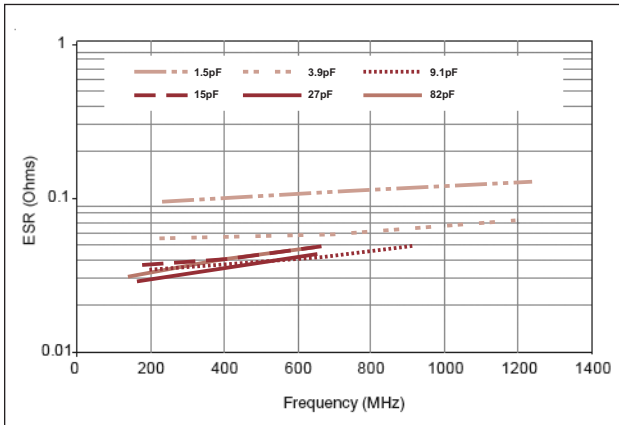
Quality Factor (Q)	2,000 min.
Insulation Resistance (IR)	10 ⁵ Megohms min. @ +25°C at rated WVDC. 10 ⁴ Megohms min. @ +125°C at rated WVDC.
Rated Voltage	See Capacitance Table
Dielectric Withstanding Voltage (DWV)	250% of Voltage for 5 seconds, Rated Voltage ≤ 500VDC 150% of Voltage for 5 seconds, 500VDC < Rated Voltage ≤ 1250VDC 120% of Voltage for 5 seconds, Rated Voltage > 1250VDC
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

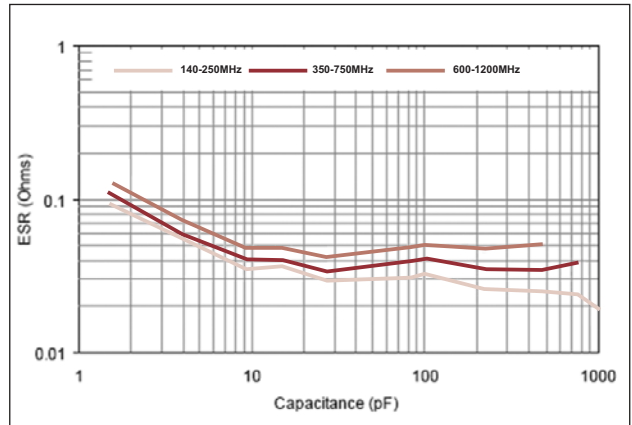
Item	Specifications	Method
Terminal Adhesion	Termination should not pull off. Ceramic should remain undamaged.	Linear pull force exerted on axial leads soldered to each terminal. 2.0lbs.
Resistance to soldering heat	No mechanical damage Capacitance change: - 1.0% ~ +2.0% Q>500 I.R. >10 G Ohms Breakdown 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 not be 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 minimum.
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% of Voltage for Capacitors, Rated Voltage ≤ 500VDC 120% of Voltage for Capacitors, 500VDC < Rated Voltage ≤ 1250VDC 100% of Voltage for Capacitors, Rated Voltage > 1250VDC

◆ 1111N Performance Curve

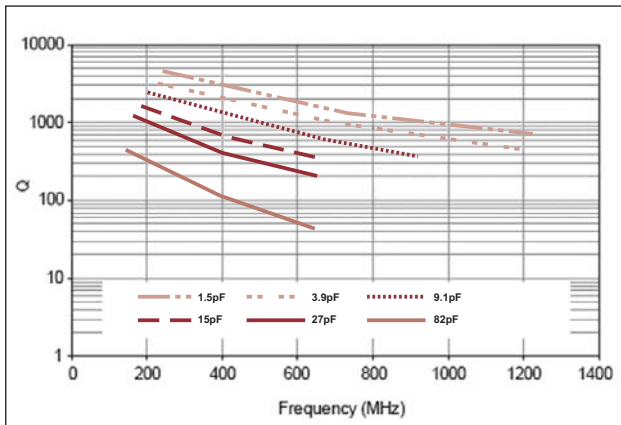
ESR vs Frequency



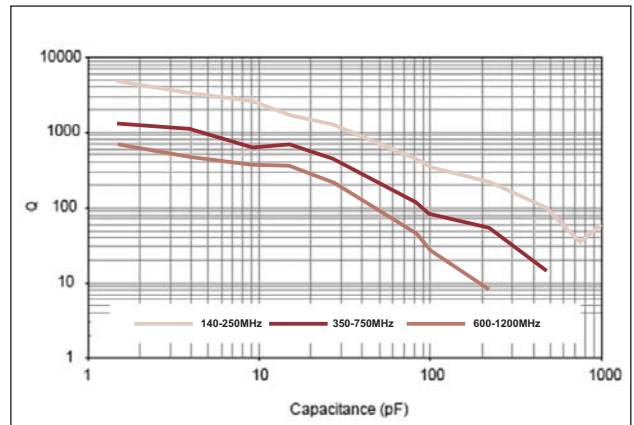
ESR vs Capacitance



Q vs Frequency



Q vs Capacitance



Series Resonant Frequency vs Capacitance

