

0805C(.080 x .050)

◆ Product Features

High Q, High Power, Low ESR/ESL, low Noise, High Self-Resonance,
Ultra-Stable Performance.



◆ 0805C Capacitance Table

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

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

◆ 0805C Chip Dimensions

unit:inch(millimeter)

	Length	width	Thickness
0805C Chip Dimensions	0.08 ± .010 (2.0 ± 0.25)	.050 ± .010 (1.2 ± 0.25)	.057(1.45)max

◆ Performance

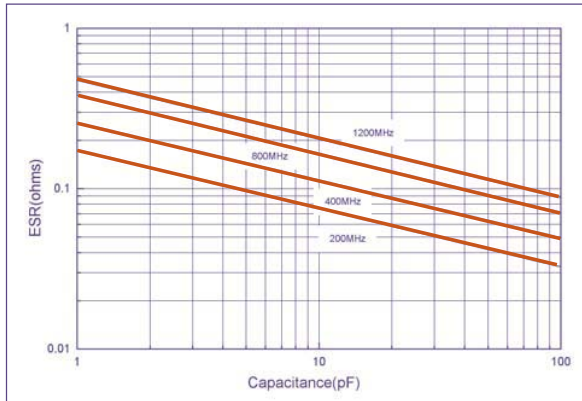
Item	Specifications
Quality Factor (Q)	greater than 10,000 at 1 MHz
Insulation Resistance (IR)	10 ⁶ Megohms min. @ +25 °C at rated WVDC. 10 ⁵ Megohms min. @ +125 °C at rated WVDC.
Rated Voltage	See Rated Voltage Table
Dielectric Withstanding Voltage(DWV)	250% of rated Voltage for 5 seconds.
Operating Temperature Range	-55 °C to +125C
Temperature Coefficient (TC)	+20~+70ppm/°C
Capacitance Drift	± 0.02% or ± 0.02pF, whichever is greater.
Piezoelectric Effects	None
Termination Type	See Termination Type Table

◆ Environmental Tests

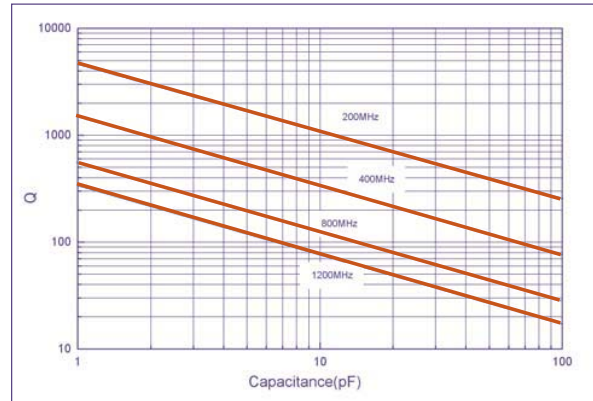
Item	Specifications	Method
Thermal shock	DWV: the initial value IR: Shall be not less than 30% the initial value Capacitance change: no more than 0.5% or 0.5pF.	MIL-STD-202, Method 107, Condition A. At the maximum rated temperature(-55 °C and 125 °C) stay 30 minutes, The time of removing shall be not more than 3 minutes. Perform the five cycles.
Moisture resistance		MIL-STD-202, Method 106.
Humidity (steady state)	DWV: the initial value IR: the initial value Capacitance change: no more than 0.3% or 0.3pF.	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	IR: Shall be not less than 30% the initial value Capacitance change: no more than 0.2%	MIL-STD-202, Method 108, for 2000 hours, at 125 °C. 200% Rated voltage D.C. applied.

◆ 0805C Performance Curve

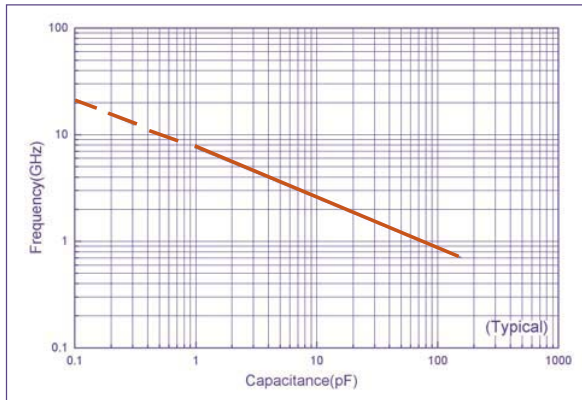
ESR VS Capacitance



Q VS Capacitance



Series resonance VS Capacitance



NPO TC

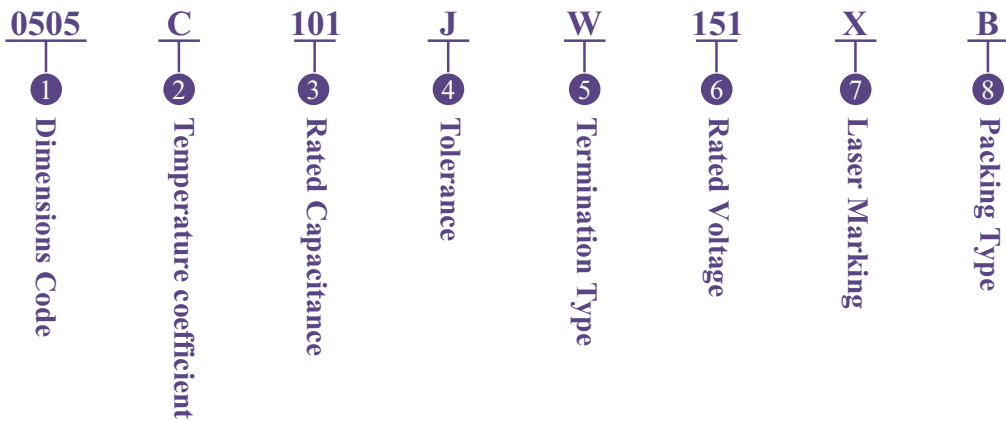
◆ **Product Features**

High Q, High Power, Low ESR/ESL, low Noise, High Self-Resonance,
Ultra-Stable Performance.

◆ **Typical applications field**

Wireless Broadcasting Equipment, Mobile Base Stations, GPS Portables,
Medical (MRI coils), Radar.

◆ **Part Numbering**



① **Dimensions Code**

unit:inch(millimeter)

	0505	0805	1111	2225	3838
Length	0.055 +.015~- .010 (1.4 +0.38~-0.25)	0.08 ±0.010 (2.0 +0.25~-0.25)	0.110 +.020~- .010 (2.79 +0.51~-0.25)	0.230 +.020~- .010 (5.84 +0.51~-0.25)	0.380 +.015~- .010 (9.65 +0.38~-0.25)
width	.055 ± .010 (1.4 ± 0.25)	.05 ± .010 (1.2 ± 0.25)	.110 ± .010 (2.79 ± 0.25)	.250 ± .015 (6.35 ± 0.38)	.380 ± .010 (9.65 ± 0.25)
Thickness	.057(1.45)max	.057(1.45)max	.10(2.6)max	.165(4.19)max	0.177(4.5)max

② **Temperature coefficient: 0 ± 30ppm/°C**

③ **Rated Capacitance**

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

Capacitance is not less than 10F; 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	P	C	MS	AR	RR	AW	RW
Type	Nickel, Plated 100% Sn(RoHS)	Non-magnetic Copper Plated 100% Sn(RoHS)	Palladium Silver	Microstrip	Axial Ribbon	Radial Ribbon	Axial Wire	Radial wire

Code	MN	AN	FN	BN	RN
Type	Non-mag Microstrip	Non-mag Axial Ribbon	Non-mag Radial Ribbon	Non-mag Axial Wire	Non-mag Radial Wire

⑥ Rated voltage

Code	Rated Voltage	Code	Rated Voltage
500	50V	102	1000V
101	100V	152	1500V
151	150V	202	2000V
201	200V	252	2500V
301	300V	362	3600V
501	500V		

⑦ Laser Marking

X denote Marking; N denote No-Marking.

Capacitance is less than 10pF; for example: The marking of 1.0pF is 1R0.

Capacitance is not less than 10pF; for example: The marking of 100pF is 101.

⑧ Packaging Type

	0505	0805	1111	2225	3838
T:Tape carrier packaging	√	√	√	√	
B:Bulk packaging in a bag	√	√	√	√	√
C:Gridiron packaging		√		√	√
I:Special packaging	Consult with PASSIVE PLUS				

Quantity per Reel: 0505: 500,1000,2000,3000pcs/reel; 1111: 500,1000,2000pcs/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.