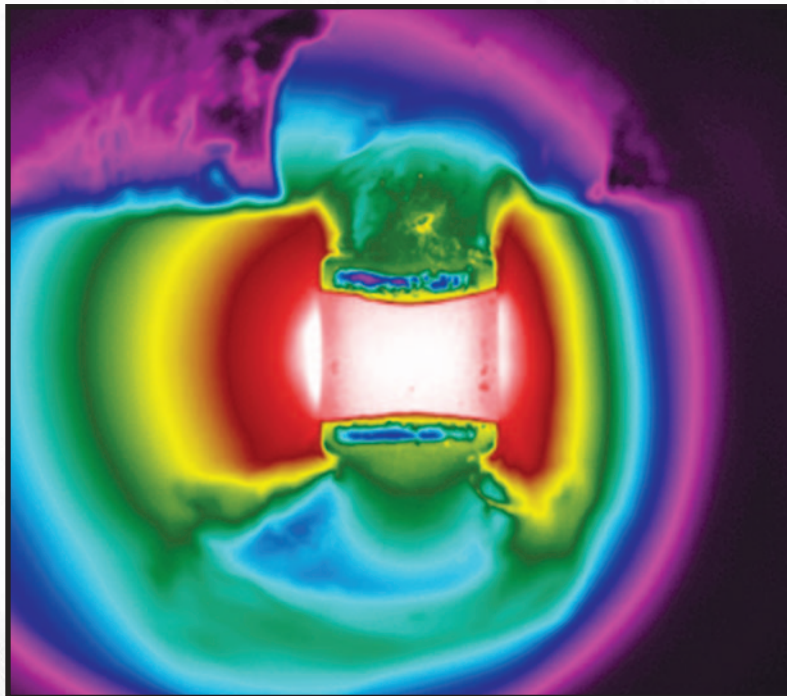




HIGH Q NPO CERAMIC CAPACITORS FOR RF & MICROWAVE



- **Low ESR, High Q**
- **$Q = 10,000$ at 1 MHz**
- **100% Made in U.S.A.**
- **For Use Up to Ku-Band**
- **Superior Mechanical Strength**
- **Suitable for Military & Space**

SURFACE MOUNT (0201 to 7676+) HIGH Q NPO CAPACITORS

PRESIDIO ADVANTAGE

- Low ESR, High Q
- $Q = 10,000$ at 1 MHz
- 100% Made in U.S.A.
- For Use Up to Ku-Band
- Superior Mechanical Strength
- Suitable for Military and Space
- Matching Oscillator Design
- Typical Designs from DC to Ku-Band

DIELECTRICS

Ceramic NPO: Extremely Low ESR & Very High Q. Ultra temperature stable. Most economical.

Ceramic UP: Extremely low ESR & Highest Q. Ultra temperature stable. Best for very high power applications.

TYPICAL APPLICATIONS

Filter Capacitors

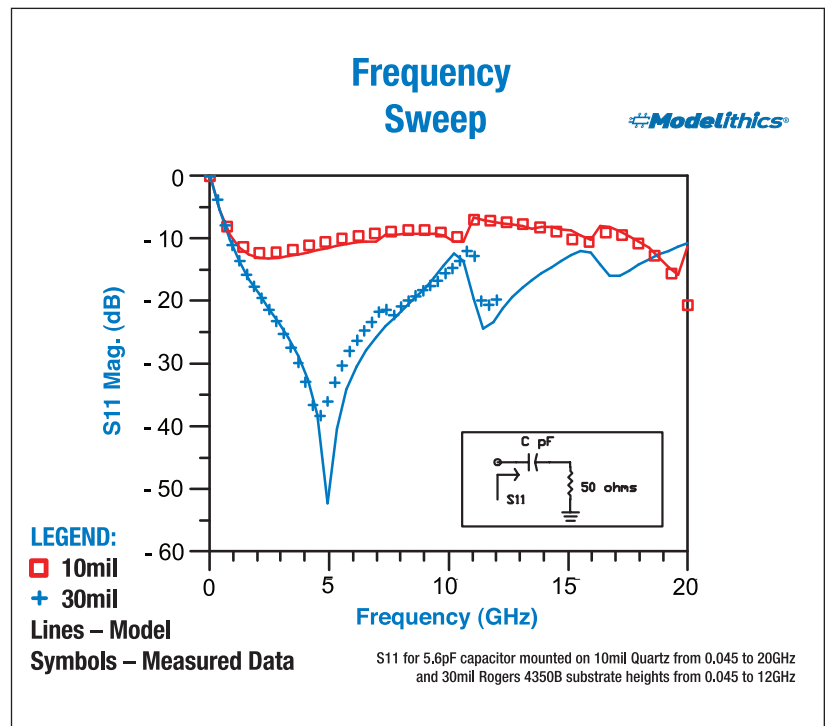
A filter design requires a specific capacitance value, cF, and at the upper end of the filter response, fF, the effective capacity must not exceed cF by more than a specified amount of delta C. Once cF is determined, case size, voltage rating and temperature characteristics can be selected.

DC Block and RF Bypass

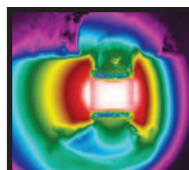
The bandwidth over which the insertion loss meets specification is determined by the location of parallel resonances. Minimum insertion loss at the band center is achieved by choosing a capacitor whose lowest series resonance is approximately at this frequency. Low impedance is typically more important than the capacitance value.

Low Noise Applications

Dissipation loss is the consideration. ESR is very small at the series resonance, very large at the parallel resonance. The neighboring parallel resonances determine the bandwidth.



Presidio's capacitors are available in various screening levels from Industrial to Space Grade (See Page 18).



Front Cover: Thermal image of
0505 10pF during
RF Power Test



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HIGH Q NPO PART NUMBERS RF, MICROWAVE & POWER

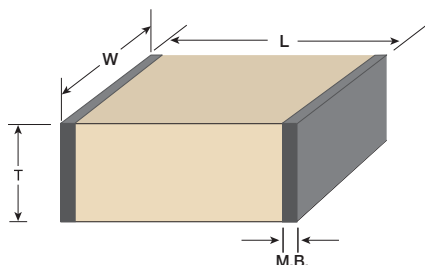
Specifications

ELECTRICAL SPECIFICATIONS	Dielectric Code: NPO & UP	Testing Method MIL-STD-55681
Temperature Coefficient of Capacitance, 0 Volt	0 ± 30 ppm/°C	Para 3.23
Typical Q for NPO (1 MHz): Typical Q for UP (1 MHz):	10,000 20,000	
Rated Operating Temperature Range	-55° to +200° C	Para 3.14
Capacitance up to 1000pF	1 MHz, 1.0 V AC RMS	Para 3.7
Capacitance >1000pF	1 kHz, 1.0 V AC RMS	
Insulation Resistance @ +25° C at WVDC	100,000 MΩ min.	Para 3.9
Insulation Resistance @ +125° C at WVDC	10,000 MΩ min.	Para 3.12
Dielectric Withstanding Voltage (DWV)	250% of WVDC ≤ 300V 200% of WVDC = 500V	
Aging Effects	None	

MIL-STD-790 DLA APPROVED FACILITY AND TEST LAB CAGE CODE: 60212

The current product code for the High Q series is “NPO,” but two older names for this series are equivalent and still supported: “UP” and “NPQ.”
Consult factory for details.

PART NUMBER CODES AND DIMENSIONS



Capacitance Codes for Multilayer Capacitor

First Two Digits = Significant Figures of Capacitance in Picofarads

Third Digit = Additional Number of Zeros

Example: R05 = 0.05 pF
OR1 = 0.1 pF
1R0 = 1 pF
100 = 10 pF
101 = 100 pF
102 = 1,000 pF
103 = 10,000 pF

Capacitance Tolerance Codes

Code	Tolerance	Cap Range
3	± 0.01 pF	≤ 2 pF
4	± 0.02 pF	≤ 2 pF
5	± 0.03 pF	≤ 3 pF
A	± 0.05 pF	< 10 pF
B	± 0.1 pF	< 10 pF
C	± 0.25 pF	< 10 pF
D	± 0.5 pF	< 10 pF
E	± 0.5%	≥ 10 pF
F	± 1%	≥ 10 pF
G	± 2%	≥ 10 pF
J	± 5%	≥ 10 pF
K	± 10%	≥ 10 pF
M	± 20%	≥ 10 pF

Termination Codes (Not available for all sizes)

Code	RoHS Comp.	Typical Application	Termination Build up	Recommended Reflow Temp.
N	No	Solder Reflow	90% Tin/10% Lead Plated Nickel Barrier/Silver Base	220°C to 260°C Typical
T	Yes	Solder Reflow	100% Tin Plated Nickel Barrier/Silver Base	220°C to 260°C Typical
C	No	Solder Reflow	90% Tin/10% Lead Plated Nickel Barrier Flexible Base	220°C to 260°C Typical
G	Yes	Conductive Epoxy, Wire Bondable	50 μ" Gold Typical Nickel Barrier/Silver Base	Cure Epoxy as per Manufacturer's Spec.
P	Yes	Conductive Epoxy	Palladium-Silver Non-Magnetic	Cure Epoxy as per Manufacturer's Spec.
X	Yes	Solder Reflow	100% Tin Plated Non-Magnetic Barrier Silver Base	220°C to 260°C Typical
V	Yes	Solder Reflow	Silver Finish Frame Non-Magnetic	220°C to 260°C Typical

Working Voltage

Code	WVDC	Code	WVDC
1	25	9	1000
2	50	N	1500
3	100	P	2000
A	150	Q	2500
4	200	R	3000
&	250	S	3600
5	300	U	5000
6	500	+	7200
#	800		

Packaging Codes

1 = Unmarked, Tape & Reel
2 = Laser Marked, Tape & Reel
5 = Unmarked, Waffle Pack
6 = Laser Marked, Waffle Pack
Laser Marking available at extra cost (except 0402 size)

RoHS

Code	Compliant
N	No
C	Yes

Call factory for digital copy of S2P files.

Contact factory for 0201 size.

Presidio's NPO capacitors can be upscreened to SPACE LEVEL testing. Consult the factory for details. Some voltage derating may apply.

PART NUMBER EXAMPLE (How to Order)

0402	NPO	6R8	A	4	N	1	N	—
Size	Dielectric	Capacitance (6.8 pF)	Capacitance Tolerance (± .05 pF)	Voltage (200V)	Termination (Plated SnPb)	Packaging (Tape and Reel)	Non RoHS Compliant	Design-In Code (See end of catalog)



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0402 HIGH Q NPO CERAMIC CAPACITORS FOR RF & MICROWAVE

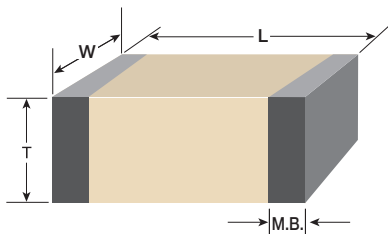
PRESIDIO PART NUMBER	CAP. (pF)	TOL.	WVDC
0402NPO0R05_4N1N-	0.05	3,4,5,A	100, 200
0402NPO0R1_4N1N-	0.1	3,4,5,A,B	100, 200
0402NPO0R2_4N1N-	0.2	3,4,5,A,B	100, 200
0402NPO0R3_4N1N-	0.3	3,4,5,A,B,C	100, 200
0402NPO0R4_4N1N-	0.4	3,4,5,A,B,C	100, 200
0402NPO0R5_4N1N-	0.5	3,4,5,A,B,C	100, 200
0402NPO0R6_4N1N-	0.6	3,4,5,A,B,C	100, 200
0402NPO0R7_4N1N-	0.7	3,4,5,A,B,C	100, 200
0402NPO0R8_4N1N-	0.8	3,4,5,A,B,C	100, 200
0402NPO0R9_4N1N-	0.9	3,4,5,A,B,C	100, 200
0402NPO1R0_4N1N-	1.0	3,4,5,A,B,C,D	100, 200
0402NPO1R1_4N1N-	1.1	3,4,5,A,B,C,D	100, 200
0402NPO1R2_4N1N-	1.2	3,4,5,A,B,C,D	100, 200
0402NPO1R3_4N1N-	1.3	3,4,5,A,B,C,D	100, 200
0402NPO1R5_4N1N-	1.5	3,4,5,A,B,C,D	100, 200

PRESIDIO PART NUMBER	CAP. (pF)	TOL.	WVDC
0402NPO1R6_4N1N-	1.6	3,4,5,A,B,C,D	100, 200
0402NPO1R8_4N1N-	1.8	3,4,5,A,B,C,D	100, 200
0402NPO2R0_4N1N-	2.0	3,4,5,A,B,C,D	100, 200
0402NPO2R2_4N1N-	2.2	5,A,B,C,D	100, 200
0402NPO2R4_4N1N-	2.4	5,A,B,C,D	100, 200
0402NPO2R7_4N1N-	2.7	5,A,B,C,D	100, 200
0402NPO3R0_4N1N-	3.0	5,A,B,C,D	100, 200
0402NPO3R3_4N1N-	3.3	A,B,C,D	100, 200
0402NPO3R6_4N1N-	3.6	A,B,C,D	100, 200
0402NPO3R9_4N1N-	3.9	A,B,C,D	100, 200
0402NPO4R3_4N1N-	4.3	A,B,C,D	100, 200
0402NPO4R7_4N1N-	4.7	A,B,C,D	100, 200
0402NPO5R1_4N1N-	5.1	A,B,C,D	100, 200
0402NPO5R6_4N1N-	5.6	A,B,C,D	100, 200
0402NPO6R2_4N1N-	6.2	A,B,C,D	100, 200

PRESIDIO PART NUMBER	CAP. (pF)	TOL.	WVDC
0402NPO6R8_4N1N-	6.8	A,B,C,D	100, 200
0402NPO7R5_4N1N-	7.5	A,B,C,D	100, 200
0402NPO8R2_4N1N-	8.2	A,B,C,D	100, 200
0402NPO9R1_4N1N-	9.1	A,B,C,D	100, 200
0402NPO100_4N1N-	10	F,G,J	100, 200
0402NPO110_4N1N-	11	F,G,J	100, 200
0402NPO120_4N1N-	12	F,G,J	100, 200
0402NPO130_4N1N-	13	F,G,J	100, 200
0402NPO150_4N1N-	15	F,G,J	100, 200
0402NPO160_4N1N-	16	F,G,J	100, 200
0402NPO180_4N1N-	18	F,G,J	100, 200
0402NPO200_4N1N-	20	F,G,J	100, 200
0402NPO220_4N1N-	22	F,G,J	100, 200
0402NPO240_4N1N-	24	F,G,J	100, 200
0402NPO270_4N1N-	27	F,G,J	100, 200

100V = Space
200V = Commercial

PART NUMBER CODES AND DIMENSIONS



Capacitance Codes for Multilayer Capacitor

First Two Digits = Significant Figures of Capacitance in Picofarads

Third Digit = Additional Number of Zeros

Examples: R05 = 0.05 pF
0R1 = 0.1 pF
1R0 = 1 pF
100 = 10 pF
101 = 100 pF

Capacitance Tolerance Codes

Code	Tolerance	Cap Range
3	± 0.01 pF	≤ 2 pF
4	± 0.02 pF	≤ 2 pF
5	± 0.03 pF	≤ 3 pF
A	± 0.05 pF	< 10 pF
B	± 0.1 pF	< 10 pF
C	± 0.25 pF	< 10 pF
D	± 0.5 pF	< 10 pF
E	± 0.5%	≥ 10 pF
F	± 1%	≥ 10 pF
G	± 2%	≥ 10 pF
J	± 5%	≥ 10 pF
K	± 10%	≥ 10 pF
M	± 20%	≥ 10 pF

LENGTH (L) INCH (mm)	WIDTH (W) INCH (mm)	THICKNESS (T) INCH (mm)	METALIZATION BAND (M.B.) INCH (mm)
0.040 ± 0.004 (1.02 ± 0.10)	0.020 ± 0.004 (0.508 ± 0.10)	0.024 MAX (0.61) MAX	0.004 (0.102) min. band 0.015 (0.381) min. space

Termination Codes

Code	RoHS Comp.	Typical Application	Termination Build up	Recommended Reflow Temp.
N	No	Solder Reflow	90% Tin/10% Lead Plated Nickel Barrier Silver Base	220°C to 260°C Typical
T	Yes	Solder Reflow	100% Tin Plated Nickel Barrier Silver Base	220°C to 260°C Typical
P	Yes	Conductive Epoxy	Palladium-Silver Non-Magnetic	Cure Epoxy as per Manufacturer's Spec.

Other terminations available. Please contact factory.

Working Voltage

Code	WVDC
E	10
G	16
1	25
2	50
3	100
A	150
4	200

Packaging Codes

1 = Unmarked, Tape and Reel
5 = Unmarked, Waffle Pack

Laser Marking Not Available
for 0402 Size

RoHS

Code	Compliant
N	No
C	Yes

Call factory for digital copy of S2P files.

Presidio's NPO capacitors can be upscreened to SPACE LEVEL testing. Consult the factory for details. Some voltage derating may apply.

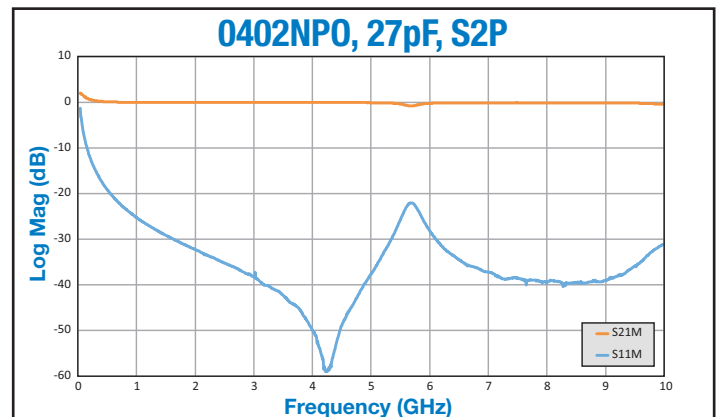
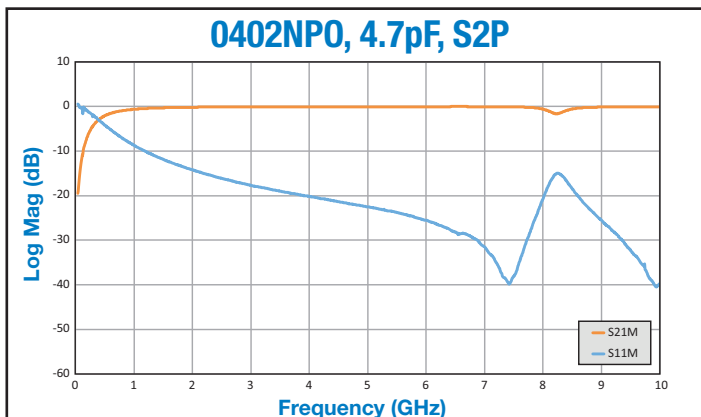
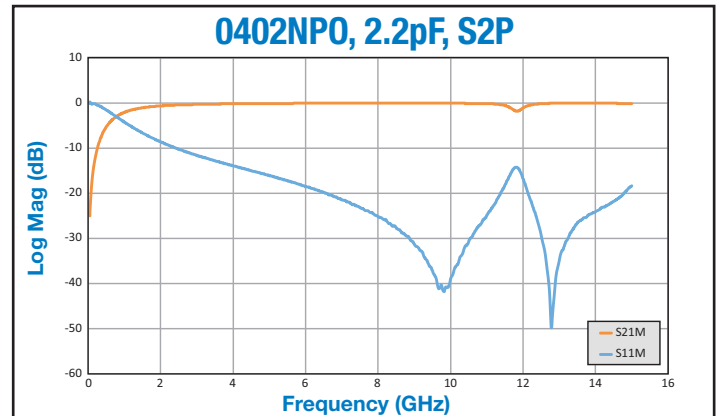
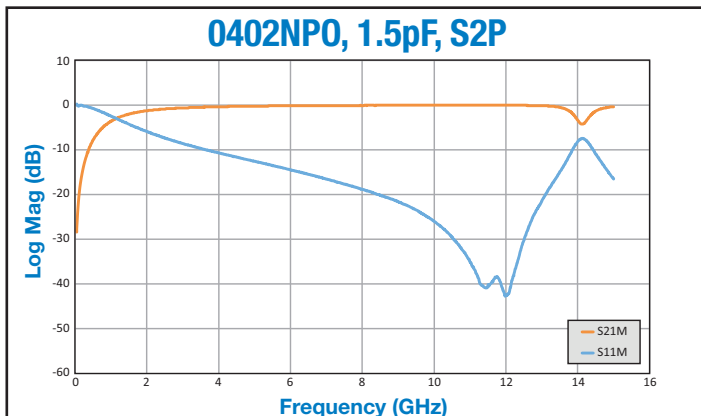
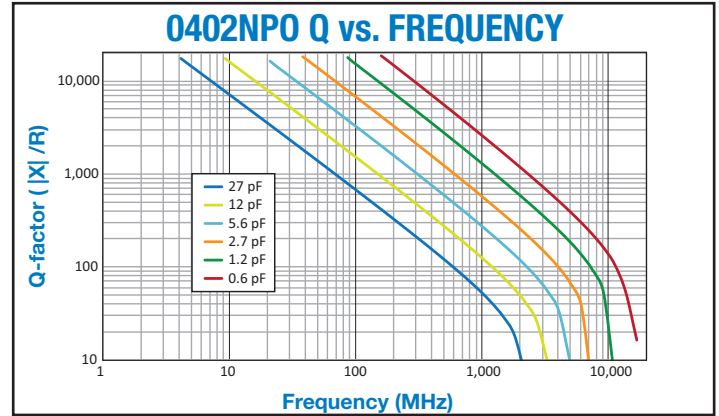
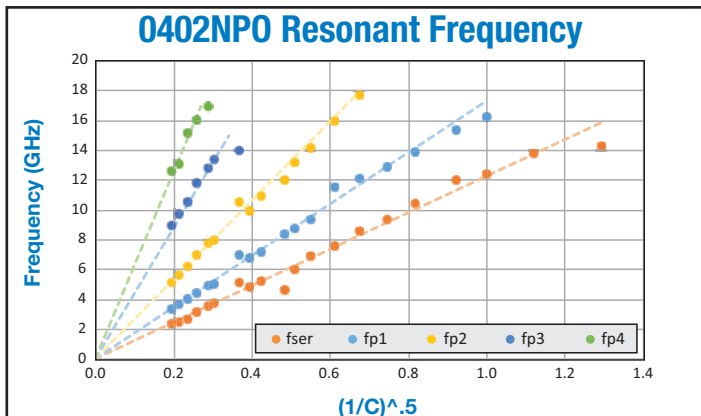
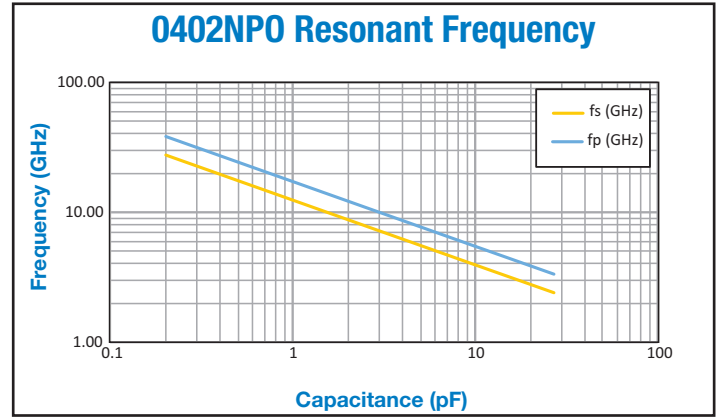
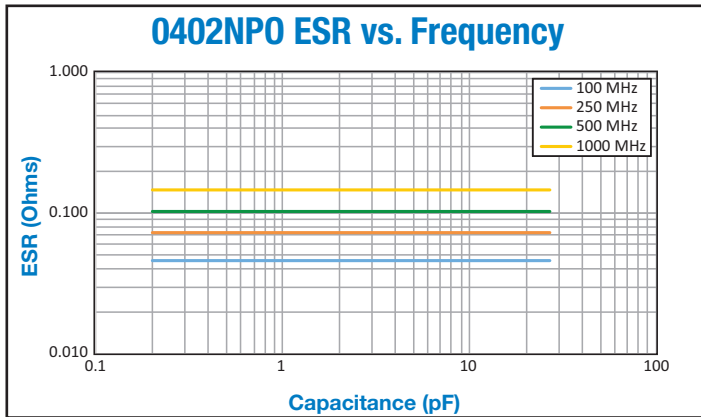
PART NUMBER EXAMPLE (How to Order)

0402	NPO	6R8	A	4	N	1	N	—
Size	Dielectric	Capacitance (6.8 pF)	Capacitance Tolerance (± .05 pF)	Voltage (200V)	Termination (Plated SnPb)	Packaging (Tape & Reel)	Not RoHS Compliant	Design-In Code (optional) (See end of catalog)



PRESIDIO COMPONENTS, INC.

0402 HIGH Q NPO CERAMIC CAPACITORS PERFORMANCE CHARTS



Call factory for digital copy of
the 0402 NPO S2P files.



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0505 HIGH Q NPO CERAMIC CAPACITORS FOR RF & MICROWAVE

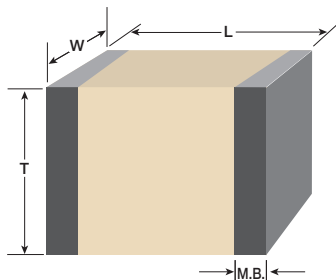
PRESIDIO PART NUMBER	CAP. (pF)	TOL.	WVDC STD, EXT
0505NPO05MAN1N-	0.05	M	150, 250
0505NPO0R1_AN1N-	0.1	A,B	150, 250
0505NPO0R2_AN1N-	0.2	A,B,C	150, 250
0505NPO0R3_AN1N-	0.3	A,B,C	150, 250
0505NPO0R4_AN1N-	0.4	A,B,C	150, 250
0505NPO0R5_AN1N-	0.5	A,B,C	150, 250
0505NPO0R6_AN1N-	0.6	A,B,C	150, 250
0505NPO0R7_AN1N-	0.7	A,B,C	150, 250
0505NPO0R8_AN1N-	0.8	A,B,C	150, 250
0505NPO0R9_AN1N-	0.9	A,B,C	150, 250
0505NPO1R0_AN1N-	1.0	A,B,C	150, 250
0505NPO1R1_AN1N-	1.1	A,B,C,D	150, 250
0505NPO1R2_AN1N-	1.2	A,B,C,D	150, 250
0505NPO1R3_AN1N-	1.3	A,B,C,D	150, 250
0505NPO1R5_AN1N-	1.5	A,B,C,D	150, 250
0505NPO1R6_AN1N-	1.6	A,B,C,D	150, 250
0505NPO1R8_AN1N-	1.8	A,B,C,D	150, 250
0505NPO2R0_AN1N-	2.0	A,B,C,D	150, 250
0505NPO2R2_AN1N-	2.2	A,B,C,D	150, 250
0505NPO2R4_AN1N-	2.4	A,B,C,D	150, 250
0505NPO2R7_AN1N-	2.7	A,B,C,D	150, 250
0505NPO3R0_AN1N-	3.0	A,B,C,D	150, 250
0505NPO3R3_AN1N-	3.3	A,B,C,D	150, 250
0505NPO3R6_AN1N-	3.6	A,B,C,D	150, 250
0505NPO3R9_AN1N-	3.9	A,B,C,D	150, 250
0505NPO4R3_AN1N-	4.3	A,B,C,D	150, 250
0505NPO4R7_AN1N-	4.7	A,B,C,D	150, 250
0505NPO5R1_AN1N-	5.1	A,B,C,D	150, 250

PRESIDIO PART NUMBER	CAP. (pF)	TOL.	WVDC STD, EXT
0505NPO5R6_AN1N-	5.6	A,B,C	150, 250
0505NPO6R2_AN1N-	6.2	A,B,C	150, 250
0505NPO6R8_AN1N-	6.8	A,B,C	150, 250
0505NPO7R5_AN1N-	7.5	A,B,C,D	150, 250
0505NPO8R2_AN1N-	8.2	A,B,C,D	150, 250
0505NPO9R1_AN1N-	9.1	A,B,C,D	150, 250
0505NPO100_AN1N-	10	F,G,J,K	150, 250
0505NPO110_AN1N-	11	F,G,J,K	150, 250
0505NPO120_AN1N-	12	F,G,J,K	150, 250
0505NPO130_AN1N-	13	F,G,J,K	150, 250
0505NPO150_AN1N-	15	F,G,J,K	150, 250
0505NPO160_AN1N-	16	F,G,J,K	150, 250
0505NPO180_AN1N-	18	F,G,J,K	150, 250
0505NPO200_AN1N-	20	F,G,J,K,M	150, 250
0505NPO220_AN1N-	22	F,G,J,K,M	150, 250
0505NPO240_AN1N-	24	F,G,J,K,M	150, 250
0505NPO270_AN1N-	27	F,G,J,K,M	150, 250
0505NPO300_AN1N-	30	F,G,J,K,M	150, 250
0505NPO330_AN1N-	33	F,G,J,K,M	150, 250
0505NPO360_AN1N-	36	F,G,J,K,M	150, 250
0505NPO390_AN1N-	39	F,G,J,K,M	150, 250
0505NPO430_AN1N-	43	F,G,J,K,M	150, 250
0505NPO470_AN1N-	47	F,G,J,K,M	150, 250
0505NPO510_AN1N-	51	F,G,J,K,M	150, 250
0505NPO560_AN1N-	56	F,G,J,K,M	150, 250
0505NPO620_AN1N-	62	F,G,J,K,M	150, 250
0505NPO680_AN1N-	68	F,G,J,K,M	150, 250
0505NPO750_AN1N-	75	F,G,J,K,M	150, 250

PRESIDIO PART NUMBER	CAP. (pF)	TOL.	WVDC STD, EXT
0505NPO820_AN1N-	82	F,G,J,K,M	150, 250
0505NPO910_AN1N-	91	F,G,J,K,M	150, 250
0505NPO101_AN1N-	100	F,G,J,K,M	150, 250
0505NPO111_AN1N-	110	F,G,J,K,M	150
0505NPO121_AN1N-	120	F,G,J,K,M	150
0505NPO131_AN1N-	130	F,G,J,K,M	150
0505NPO151_AN1N-	150	F,G,J,K,M	150
0505NPO161_AN1N-	160	F,G,J,K,M	150
0505NPO181_AN1N-	180	F,G,J,K,M	150
0505NPO201_AN1N-	200	F,G,J,K,M	150
0505NPO221_AN1N-	220	F,G,J,K,M	150
0505NPO241_AN1N-	240	F,G,J,K,M	150
0505NPO271_AN1N-	270	F,G,J,K,M	150
0505NPO301_AN1N-	300	F,G,J,K,M	150
0505NPO331_AN1N-	330	F,G,J,K,M	150
0505NPO361_AN1N-	360	F,G,J,K,M	150
0505NPO391_AN1N-	390	F,G,J,K,M	150
0505NPO431_AN1N-	430	F,G,J,K,M	150
0505NPO471_AN1N-	470	F,G,J,K,M	150
0505NPO511_AN1N-	510	F,G,J,K,M	150
0505NPO561_AN1N-	560	F,G,J,K,M	150
0505NPO621_AN1N-	620	F,G,J,K,M	150
0505NPO681_2N1N-*	680	F,G,J,K,M	50
0505NPO751_2N1N-*	750	F,G,J,K,M	50
0505NPO821_2N1N-*	820	F,G,J,K,M	50
0505NPO911_2N1N-*	910	F,G,J,K,M	50
0505NPO102_2N1N-*	1000	F,G,J,K,M	50

For other cap values contact factory.
Voltages in **BOLD** are for military and space.

PART NUMBER CODES AND DIMENSIONS



Capacitance Codes for Multilayer Capacitor

First Two Digits = Significant Figures of Capacitance in Picofarads

Third Digit = Additional Number of Zeros

Example: 0R1 = 0.1 pF
1R0 = 1 pF
100 = 10 pF
101 = 100 pF
102 = 1,000 pF
103 = 10,000 pF

LENGTH (L) INCH (mm)	WIDTH (W) INCH (mm)	THICKNESS (T) INCH (mm)	METALIZATION BAND (M.B.) INCH (mm)
0.055 ± 0.015 / - 0.010 (1.397 ± 0.381 / - 0.254)	0.055 ± 0.015 (1.397 ± 0.381)	0.057 MAX (1.448 MAX)	0.005 (0.127) min. band 0.015 (0.381) min. space

Termination Codes

Code	RoHS Comp.	Typical Application	Termination Build up	Recommended Reflow Temp.
N	No	Solder Reflow	90% Tin/10% Lead Plated Nickel Barrier Silver Base	220°C to 260°C Typical
T	Yes	Solder Reflow	100% Tin Plated Nickel Barrier Silver Base	220°C to 260°C Typical
C	No	Solder Reflow	90% Tin/10% Lead Plated Nickel Barrier Non-Magnetic Flexible Base	220°C to 260°C Typical
G	Yes	Conductive Epoxy, Wire Bondable	50 μ" Gold Typical Nickel Barrier Silver Base	Cure Epoxy as per Manufacturer's Spec.
P	Yes	Conductive Epoxy	Palladium-Silver Non-Magnetic	Cure Epoxy as per Manufacturer's Spec.
X	Yes	Solder Reflow	100% Tin Plated Non-Magnetic Barrier Silver Base	220°C to 260°C Typical

Capacitance Tolerance Codes

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

Working Voltage

Code	WVDC
1	25
2	50
3	100
A	150
4	200
&	250

Packaging Codes

1 = Unmarked, 7" Tape & Reel
2 = Laser Marked, 7" Tape & Reel
M = Laser Marked, Vertical
Orientation, 7" Tape & Reel
5 = Unmarked, Waffle Pack
6 = Laser Marked, Waffle Pack
Laser Marking available at extra cost
(except 0402 size)

RoHS

Code	Compliant
N	No
C	Yes

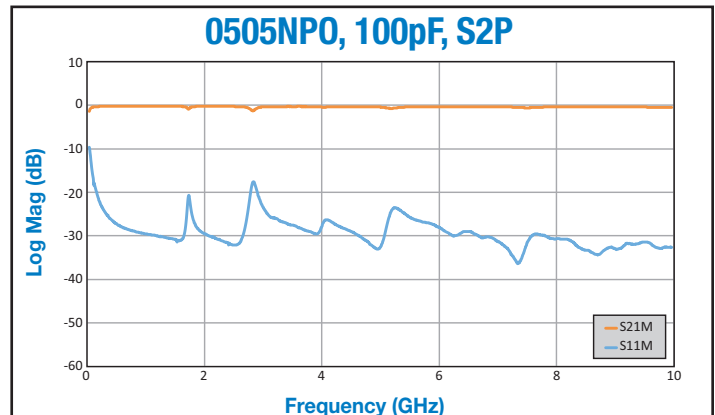
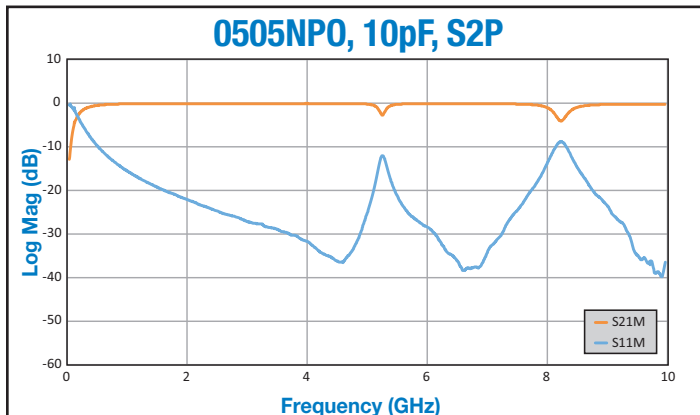
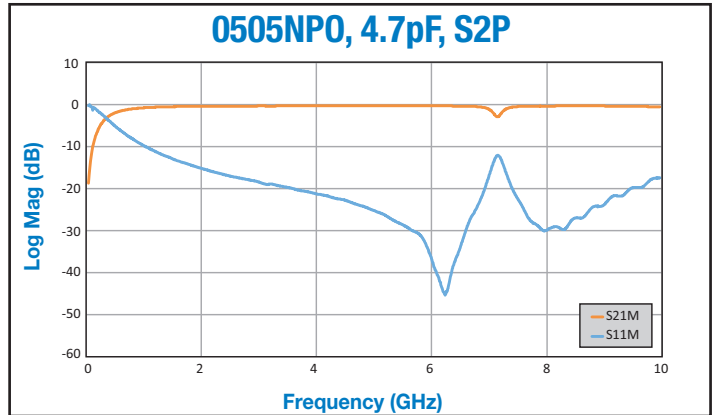
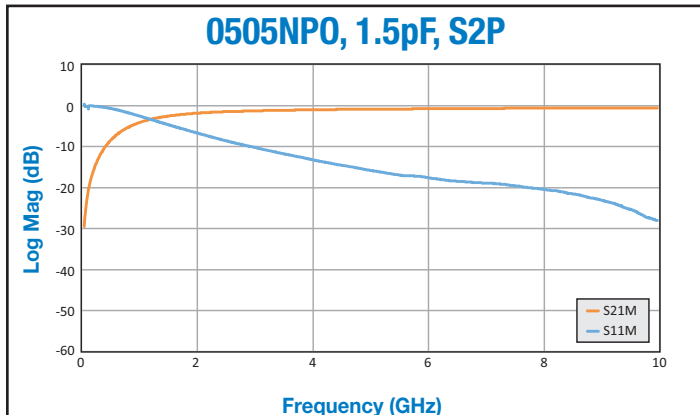
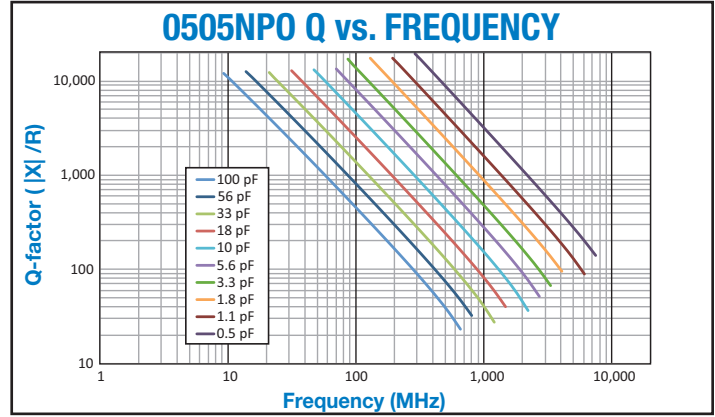
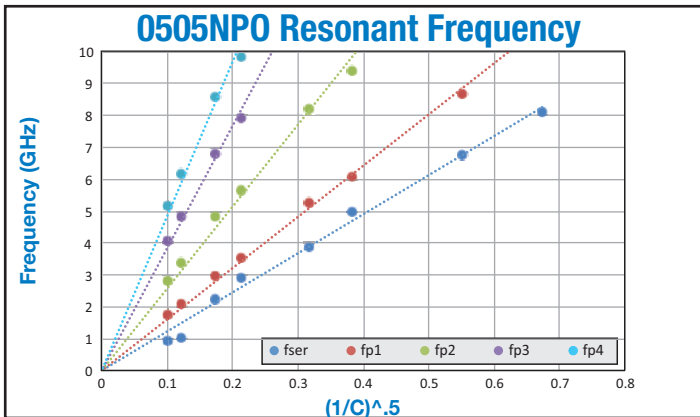
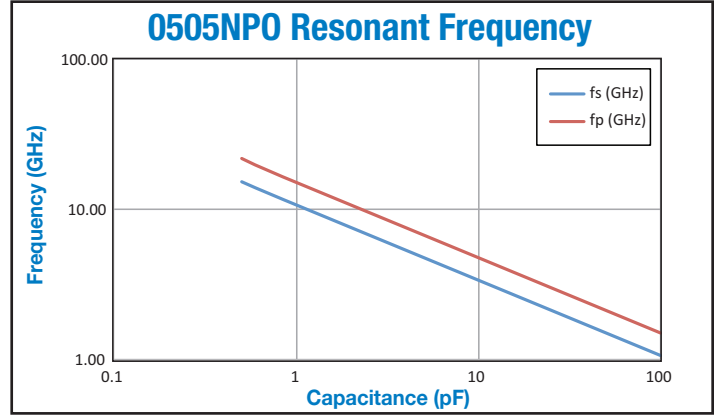
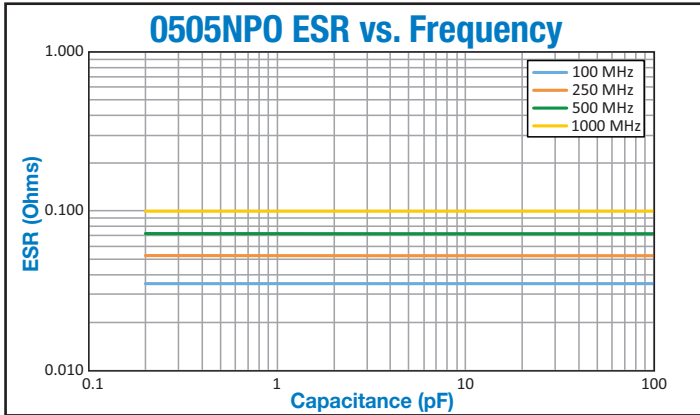
**Presidio's NPO capacitors can be
upscreened to SPACE LEVEL testing.
Consult the factory for details.
Some voltage derating may apply.**

Call factory for digital copy of S2P files.

PART NUMBER EXAMPLE (How to Order)

0505	NPO	101	F	A	N	1	N	—
Size	Dielectric	Capacitance (100 pF)	Capacitance Tolerance (± 1%)	Voltage (150 V)	Termination (Plated SnPb)	Packaging (Tape and Reel)	RoHS Compliant	Design-In Code (See end of catalog)

0505 HIGH Q NPO CERAMIC CAPACITORS PERFORMANCE CHARTS



Call factory for digital copy of
the 0505 NPO S2P files.



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0603 HIGH Q NPO CERAMIC CAPACITORS FOR RF & MICROWAVE

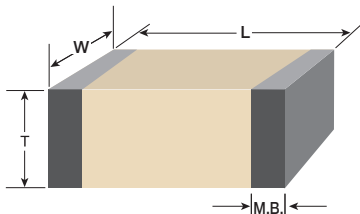
PRESIDIO PART NUMBER	CAP. (pF)	TOL.	WVDC
0603NPO05M&N1N-	0.05	M	100 , 250
0603NPO0R1_&N1N-	0.1	A,B	100 , 250
0603NPO0R2_&N1N-	0.2	A,B	100 , 250
0603NPO0R3_&N1N-	0.3	A,B,C	100 , 250
0603NPO0R4_&N1N-	0.4	A,B,C	100 , 250
0603NPO0R5_&N1N-	0.5	A,B,C	100 , 250
0603NPO0R6_&N1N-	0.6	A,B,C	100 , 250
0603NPO0R7_&N1N-	0.7	A,B,C	100 , 250
0603NPO0R8_&N1N-	0.8	A,B,C	100 , 250
0603NPO0R9_&N1N-	0.9	A,B,C	100 , 250
0603NPO1R0_&N1N-	1.0	A,B,C	100 , 250
0603NPO1R1_&N1N-	1.1	A,B,C,D	100 , 250
0603NPO1R2_&N1N-	1.2	A,B,C,D	100 , 250
0603NPO1R3_&N1N-	1.3	A,B,C,D	100 , 250
0603NPO1R5_&N1N-	1.5	A,B,C,D	100 , 250
0603NPO1R6_&N1N-	1.6	A,B,C,D	100 , 250
0603NPO1R8_&N1N-	1.8	A,B,C,D	100 , 250
0603NPO2R0_&N1N-	2.0	A,B,C,D	100 , 250
0603NPO2R2_&N1N-	2.2	A,B,C,D	100 , 250
0603NPO2R4_&N1N-	2.4	A,B,C,D	100 , 250

PRESIDIO PART NUMBER	CAP. (pF)	TOL.	WVDC
0603NPO2R7_&N1N-	2.7	A,B,C,D	100 , 250
0603NPO3R0_&N1N-	3.0	A,B,C,D	100 , 250
0603NPO3R3_&N1N-	3.3	A,B,C,D	100 , 250
0603NPO3R6_&N1N-	3.6	A,B,C,D	100 , 250
0603NPO3R9_&N1N-	3.9	A,B,C,D	100 , 250
0603NPO4R3_&N1N-	4.3	A,B,C,D	100 , 250
0603NPO4R7_&N1N-	4.7	A,B,C,D	100 , 250
0603NPO5R1_&N1N-	5.1	A,B,C,D	100 , 250
0603NPO5R6_&N1N-	5.6	A,B,C,D	100 , 250
0603NPO6R2_&N1N-	6.2	A,B,C,D	100 , 250
0603NPO6R8_&N1N-	6.8	A,B,C,D	100 , 250
0603NPO7R5_&N1N-	7.5	A,B,C,D	100 , 250
0603NPO8R2_&N1N-	8.2	A,B,C,D	100 , 250
0603NPO9R1_&N1N-	9.1	A,B,C,D	100 , 250
0603NPO100_&N1N-	10	F,G,J,K	100 , 250
0603NPO110_&N1N-	11	F,G,J,K	100 , 250
0603NPO120_&N1N-	12	F,G,J,K	100 , 250
0603NPO130_&N1N-	13	F,G,J,K	100 , 250
0603NPO150_&N1N-	15	F,G,J,K	100 , 250
0603NPO160_&N1N-	16	F,G,J,K	100 , 250

PRESIDIO PART NUMBER	CAP. (pF)	TOL.	WVDC
0603NPO180_&N1N-	18	F,G,J,K	100 , 250
0603NPO200_&N1N-	20	F,G,J,K	100 , 250
0603NPO220_&N1N-	22	F,G,J,K	100 , 250
0603NPO240_&N1N-	24	F,G,J,K	100 , 250
0603NPO270_&N1N-	27	F,G,J,K	100 , 250
0603NPO300_&N1N-	30	F,G,J,K	100 , 250
0603NPO330_&N1N-	33	F,G,J,K	100 , 250
0603NPO360_&N1N-	36	F,G,J,K	100 , 250
0603NPO390_&N1N-	39	F,G,J,K	100 , 250
0603NPO430_&N1N-	43	F,G,J,K	100 , 250
0603NPO470_&N1N-	47	F,G,J,K	100 , 250
0603NPO510_&N1N-	51	F,G,J,K	100 , 250
0603NPO560_&N1N-	56	F,G,J,K	100 , 250
0603NPO620_&N1N-	62	F,G,J,K	100 , 250
0603NPO680_&N1N-	68	F,G,J,K	100 , 250
0603NPO750_&N1N-	75	F,G,J,K	100 , 250
0603NPO820_&N1N-	82	F,G,J,K	100 , 250
0603NPO910_&N1N-	91	F,G,J,K	100 , 250
0603NPO101_&N1N-	100	F,G,J,K	100 , 250

For other cap values contact factory.
Voltages in **BOLD** are for military and space.

PART NUMBER CODES AND DIMENSIONS



Capacitance Codes for Multilayer Capacitor

First Two Digits = Significant Figures of Capacitance in Picofarads
Third Digit = Additional Number of Zeros
Examples:
0R1 = 0.1 pF
1R0 = 1 pF
100 = 10 pF
101 = 100 pF
102 = 1,000 pF
103 = 10,000 pF

Capacitance Tolerance Codes

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

LENGTH (L) INCH (mm)	WIDTH (W) INCH (mm)	THICKNESS (T) INCH (mm)	METALIZATION BAND (M.B.) INCH (mm)
0.063 ± 0.006 (1.60 ± 0.15)	0.032 ± 0.006 (0.81 ± 0.15)	0.035 MAX (0.89 MAX)	0.005 (0.127) min. band 0.020 (0.508) min. space

Termination Codes

Code	RoHS Comp.	Typical Application	Termination Build up	Recommended Reflow Temp.
N	No	Solder Reflow	90% Tin/10% Lead Plated Nickel Barrier Silver Base	220°C to 260°C Typical
T	Yes	Solder Reflow	100% Tin Plated Nickel Barrier Silver Base	220°C to 260°C Typical
P	Yes	Conductive Epoxy	Palladium-Silver Non-Magnetic	Cure Epoxy as per Manufacturer's Spec.

Other terminations available. Please contact factory.

Working Voltage

Code	WVDC
1	25
2	50
3	100
A	150
4	200
&	250

Packaging Codes

1 = Unmarked, Tape & Reel
2 = Laser Marked, Tape & Reel
5 = Unmarked, Waffle Pack
6 = Laser Marked, Waffle Pack
Laser Marking available
at extra cost (except 0402 size)

RoHS

Code	Compliant
N	No
C	Yes

Call factory for digital copy of S2P files.

Presidio's NPO capacitors can be upscreened to SPACE LEVEL testing.
Consult the factory for details. Some voltage derating may apply.

PART NUMBER EXAMPLE (How to Order)

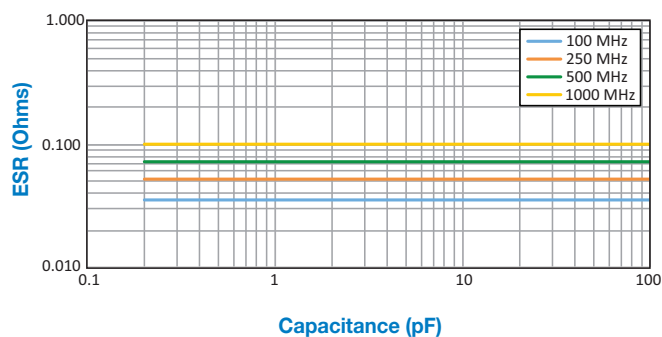
0603	NPO	270	F	&	N	1	N	—
Size	Dielectric	Capacitance (27 pF)	Capacitance Tolerance (±1%)	Voltage (250V)	Termination (Plated SnPb)	Packaging (Tape & Reel)	Not RoHS Compliant	Design-In Code (See end of catalog)



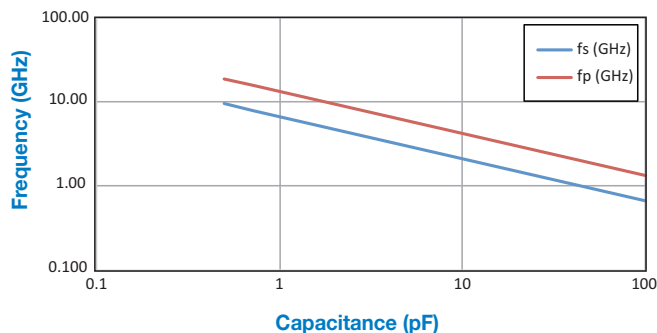
PRESIDIO COMPONENTS, INC.

0603 HIGH Q NPO CERAMIC CAPACITORS PERFORMANCE CHARTS

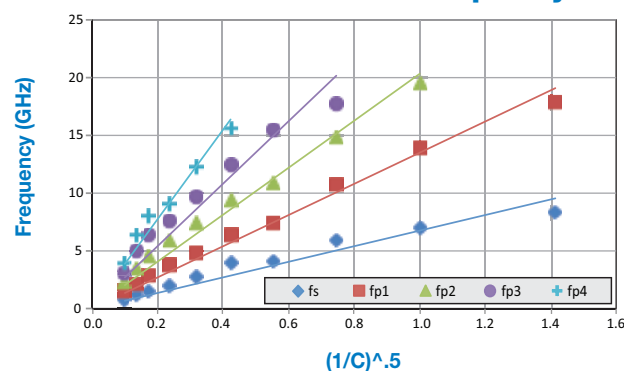
0603NPO ESR vs. Frequency



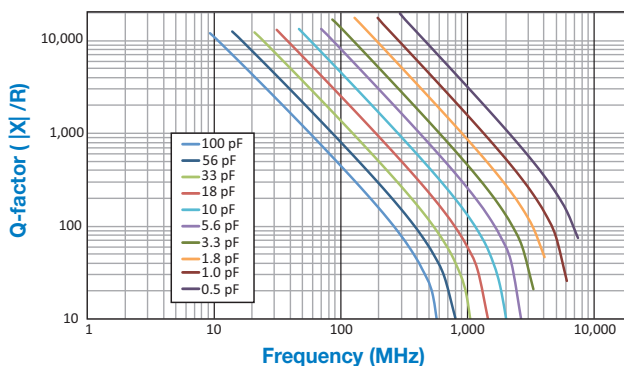
0603NPO Resonant Frequency



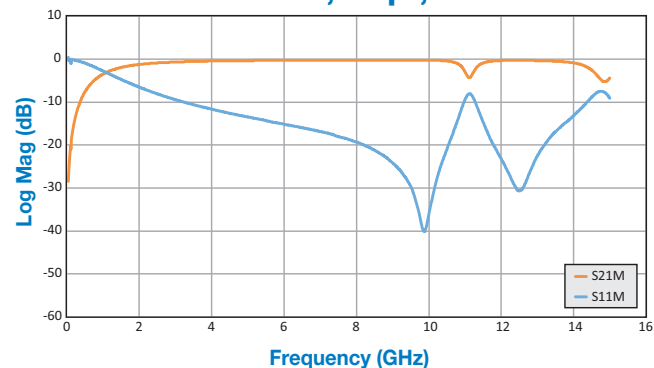
0603NPO Resonant Frequency



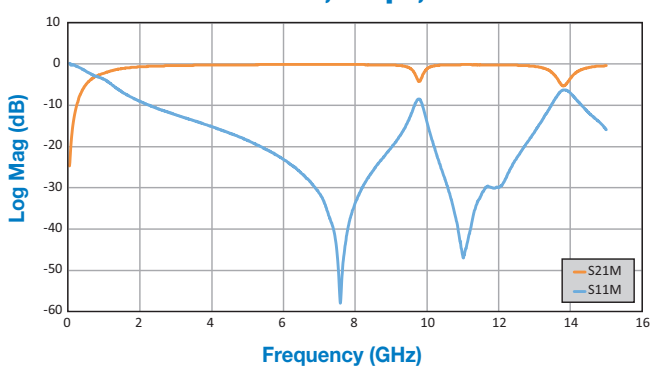
0603NPO Q vs. FREQUENCY



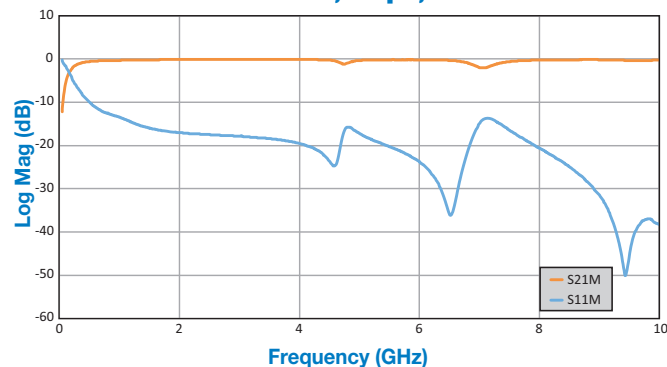
0603NPO, 1.5pF, S2P



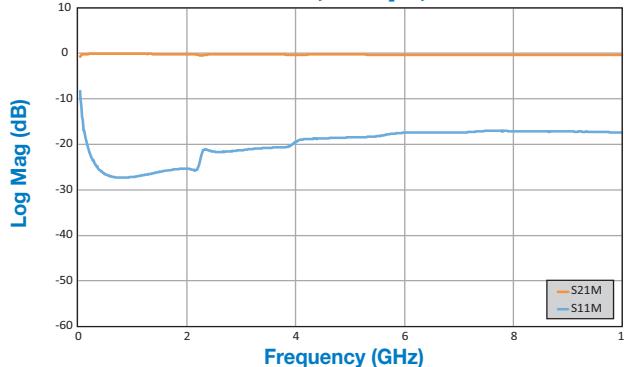
0603NPO, 2.2pF, S2P



0603NPO, 10pF, S2P



0603NPO, 100pF, S2P



Call factory for digital copy of
the 0603 NPO S2P files.



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0711 HIGH Q NPO CERAMIC CAPACITORS FOR RF & MICROWAVE

Low Inductance

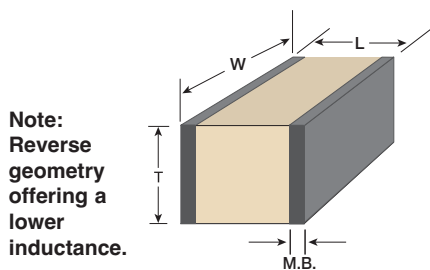
PRESIDIO PART NUMBER	CAP. (pF)	TOL.	WVDC
0711NPO1R0_6N1N-	1.0	A,B,C,D	500
0711NPO1R1_6N1N-	1.1	A,B,C,D	500
0711NPO1R2_6N1N-	1.2	A,B,C,D	500
0711NPO1R3_6N1N-	1.3	A,B,C,D	500
0711NPO1R5_6N1N-	1.5	A,B,C,D	500
0711NPO1R6_6N1N-	1.6	A,B,C,D	500
0711NPO1R8_6N1N-	1.8	A,B,C,D	500
0711NPO2R0_6N1N-	2.0	A,B,C,D	500
0711NPO2R2_6N1N-	2.2	A,B,C,D	500
0711NPO2R4_6N1N-	2.4	A,B,C,D	500
0711NPO2R7_6N1N-	2.7	A,B,C,D	500
0711NPO3R0_6N1N-	3.0	A,B,C,D	500
0711NPO3R3_6N1N-	3.3	A,B,C,D	500
0711NPO3R6_6N1N-	3.6	A,B,C,D	500
0711NPO3R9_6N1N-	3.9	A,B,C,D	500
0711NPO4R3_6N1N-	4.3	A,B,C,D	500
0711NPO4R7_6N1N-	4.7	A,B,C,D	500

PRESIDIO PART NUMBER	CAP. (pF)	TOL.	WVDC
0711NPO5R1_6N1N-	5.1	A,B,C,D	500
0711NPO5R6_6N1N-	5.6	A,B,C,D	500
0711NPO6R2_6N1N-	6.2	A,B,C,D	500
0711NPO6R8_6N1N-	6.8	A,B,C,D	500
0711NPO7R5_6N1N-	7.5	A,B,C,D	500
0711NPO8R2_6N1N-	8.2	A,B,C,D	500
0711NPO9R1_6N1N-	9.1	A,B,C,D	500
0711NPO100_6N1N-	10	F,G,J,K	500
0711NPO110_6N1N-	11	F,G,J,K	500
0711NPO120_6N1N-	12	F,G,J,K	500
0711NPO130_6N1N-	13	F,G,J,K	500
0711NPO150_6N1N-	15	F,G,J,K	500
0711NPO160_6N1N-	16	F,G,J,K	500
0711NPO180_6N1N-	18	F,G,J,K	500
0711NPO200_6N1N-	20	F,G,J,K	500
0711NPO220_6N1N-	22	F,G,J,K	500

PRESIDIO PART NUMBER	CAP. (pF)	TOL.	WVDC
0711NPO240_6N1N-	24	F,G,J,K	500
0711NPO270_6N1N-	27	F,G,J,K	500
0711NPO300_6N1N-	30	F,G,J,K	500
0711NPO330_6N1N-	33	F,G,J,K	500
0711NPO360_6N1N-	36	F,G,J,K	500
0711NPO390_6N1N-	39	F,G,J,K	500
0711NPO430_6N1N-	43	F,G,J,K	500
0711NPO470_6N1N-	47	F,G,J,K	500
0711NPO510_6N1N-	51	F,G,J,K	500
0711NPO560_6N1N-	56	F,G,J,K	500
0711NPO620_6N1N-	62	F,G,J,K	500
0711NPO680_6N1N-	68	F,G,J,K	500
0711NPO750_6N1N-	75	F,G,J,K	500
0711NPO820_6N1N-	82	F,G,J,K	500
0711NPO910_6N1N-	91	F,G,J,K	500
0711NPO101_6N1N-	100	F,G,J,K	500

For military and space voltage ratings and other cap values please contact factory.

PART NUMBER CODES AND DIMENSIONS



Capacitance Codes for Multilayer Capacitor

First Two Digits = Significant Figures of Capacitance in Picofarads

Third Digit = Additional Number of Zeros

Example: 0R1 = 0.1 pF
1R0 = 1 pF
100 = 10 pF
101 = 100 pF
102 = 1,000 pF
103 = 10,000 pF

Capacitance Tolerance Codes

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

LENGTH (L) INCH (mm)	WIDTH (W) INCH (mm)	THICKNESS (T) INCH (mm)	METALIZATION BAND (M.B.) INCH (mm)
0.070 ± 0.015 (1.778 ± .381)	0.105 ± 0.01 (2.667 ± 0.254)	0.090 MAX (2.286 MAX)	0.005 to 0.020 (0.127 to 0.508)

Working Voltage

Code	WVDC
1	25
2	50
3	100
A	150
4	200
&	250
5	300
6	500

Packaging Codes

1 = Unmarked, Tape & Reel
2 = Laser Marked, Tape & Reel
5 = Unmarked, Waffle Pack
6 = Laser Marked, Waffle Pack
Laser Marking available at extra cost (except 0402 size)

RoHS

Code	Compliant
N	No
C	Yes

Termination Codes

Code	RoHS Comp.	Typical Application	Termination Build up	Recommended Reflow Temp.
N	No	Solder Reflow	90% Tin/10% Lead Plated Nickel Barrier Silver Base	220°C to 260°C Typical
T	Yes	Solder Reflow	100% Tin Plated Nickel Barrier Silver Base	220°C to 260°C Typical
G	Yes	Conductive Epoxy, Wire Bondable	50 μ" Gold Typical Nickel Barrier Silver Base	Cure Epoxy as per Manufacturer's Spec.
P	Yes	Conductive Epoxy	Palladium-Silver Non-Magnetic	Cure Epoxy as per Manufacturer's Spec.

Call factory for digital copy of S2P files.

Presidio's NPO capacitors can be upscreened to SPACE LEVEL testing. Consult the factory for details. Some voltage derating may apply.

PART NUMBER EXAMPLE (How to Order)

0711	NPO	270	J	6	N	1	N	—
Size	Dielectric	Capacitance (27 pF)	Capacitance Tolerance (± 5%)	Voltage (500 V)	Termination (Plated SnPb)	Packaging (Tape and Reel)	Not RoHS Compliant	Design-In Code (See end of catalog)



PRESIDIO COMPONENTS, INC.

0805 HIGH Q NPO CERAMIC CAPACITORS FOR RF & MICROWAVE

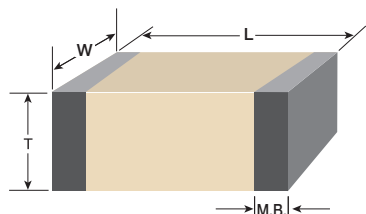
PRESIDIO PART NUMBER	CAP. (pF)	TOL.	WVDC
0805NPO0R1_&N1N-	0.1	A,B	100, 250
0805NPO0R2_&N1N-	0.2	A,B	100, 250
0805NPO0R3_&N1N-	0.3	A,B,C	100, 250
0805NPO0R4_&N1N-	0.4	A,B,C	100, 250
0805NPO0R5_&N1N-	0.5	A,B,C	100, 250
0805NPO0R6_&N1N-	0.6	A,B,C	100, 250
0805NPO0R7_&N1N-	0.7	A,B,C	100, 250
0805NPO0R8_&N1N-	0.8	A,B,C	100, 250
0805NPO0R9_&N1N-	0.9	A,B,C	100, 250
0805NPO1R0_&N1N-	1.0	A,B,C	100, 250
0805NPO1R1_&N1N-	1.1	A,B,C,D	100, 250
0805NPO1R2_&N1N-	1.2	A,B,C,D	100, 250
0805NPO1R3_&N1N-	1.3	A,B,C,D	100, 250
0805NPO1R5_&N1N-	1.5	A,B,C,D	100, 250
0805NPO1R6_&N1N-	1.6	A,B,C,D	100, 250
0805NPO1R8_&N1N-	1.8	A,B,C,D	100, 250
0805NPO2R0_&N1N-	2.0	A,B,C,D	100, 250
0805NPO2R2_&N1N-	2.2	A,B,C,D	100, 250
0805NPO2R4_&N1N-	2.4	A,B,C,D	100, 250
0805NPO2R7_&N1N-	2.7	A,B,C,D	100, 250
0805NPO3R0_&N1N-	3.0	A,B,C,D	100, 250
0805NPO3R3_&N1N-	3.3	A,B,C,D	100, 250
0805NPO3R6_&N1N-	3.6	A,B,C,D	100, 250

PRESIDIO PART NUMBER	CAP. (pF)	TOL.	WVDC
0805NPO3R9_&N1N-	3.9	A,B,C,D	100, 250
0805NPO4R3_&N1N-	4.3	A,B,C,D	100, 250
0805NPO4R7_&N1N-	4.7	A,B,C,D	100, 250
0805NPO5R1_&N1N-	5.1	A,B,C,D	100, 250
0805NPO5R6_&N1N-	5.6	A,B,C,D	100, 250
0805NPO6R2_&N1N-	6.2	A,B,C,D	100, 250
0805NPO6R8_&N1N-	6.8	A,B,C,D	100, 250
0805NPO7R5_&N1N-	7.5	A,B,C,D	100, 250
0805NPO8R2_&N1N-	8.2	A,B,C,D	100, 250
0805NPO9R1_&N1N-	9.1	A,B,C,D	100, 250
0805NPO100_&N1N-	10	F,G,J,K	100, 250
0805NPO110_&N1N-	11	F,G,J,K	100, 250
0805NPO120_&N1N-	12	F,G,J,K	100, 250
0805NPO130_&N1N-	13	F,G,J,K	100, 250
0805NPO150_&N1N-	15	F,G,J,K	100, 250
0805NPO160_&N1N-	16	F,G,J,K	100, 250
0805NPO180_&N1N-	18	F,G,J,K	100, 250
0805NPO200_&N1N-	20	F,G,J,K	100, 250
0805NPO220_&N1N-	22	F,G,J,K	100, 250
0805NPO240_&N1N-	24	F,G,J,K	100, 250
0805NPO270_&N1N-	27	F,G,J,K	100, 250
0805NPO300_&N1N-	30	F,G,J,K	100, 250
0805NPO330_&N1N-	33	F,G,J,K	100, 250

PRESIDIO PART NUMBER	CAP. (pF)	TOL.	WVDC
0805NPO360_&N1N-	36	F,G,J,K	100, 250
0805NPO390_&N1N-	39	F,G,J,K	100, 250
0805NPO430_&N1N-	43	F,G,J,K	100, 250
0805NPO470_&N1N-	47	F,G,J,K	100, 250
0805NPO510_&N1N-	51	F,G,J,K	100, 250
0805NPO560_&N1N-	56	F,G,J,K	100, 250
0805NPO620_&N1N-	62	F,G,J,K	100, 250
0805NPO680_&N1N-	68	F,G,J,K	100, 250
0805NPO750_&N1N-	75	F,G,J,K	100, 250
0805NPO820_&N1N-	82	F,G,J,K	100, 250
0805NPO910_&N1N-	91	F,G,J,K	100, 250
0805NPO101_&N1N-	100	F,G,J,K	100, 250
0805NPO111_&N1N-	110	F,G,J,K	100, 250
0805NPO121_&N1N-	120	F,G,J,K	100, 250
0805NPO131_&N1N-	130	F,G,J,K	100, 250
0805NPO151_&N1N-	150	F,G,J,K	100, 250
0805NPO161_&N1N-	160	F,G,J,K	100, 250
0805NPO181_&N1N-	180	F,G,J,K	100, 250
0805NPO201_&N1N-	200	F,G,J,K	100, 250
0805NPO221_&N1N-	220	F,G,J,K	100, 250
0805NPO241_&N1N-	240	F,G,J,K	100, 250

For other cap values contact factory.
Voltages in **BOLD** are for military and space.

PART NUMBER CODES AND DIMENSIONS



Capacitance Codes for Multilayer Capacitor

First Two Digits = Significant Figures of Capacitance
in Picofarads

Third Digit = Additional Number of Zeros

Examples: 0R1 = 0.1 pF 101 = 100 pF
1R0 = 1 pF 102 = 1,000 pF
100 = 10 pF 103 = 10,000 pF

Capacitance Tolerance Codes

Code	Tolerance	Cap Range
A	± 0.05 pF	< 10 pF
B	± 0.1 pF	< 10 pF
C	± 0.25 pF	< 10 pF
D	± 0.5 pF	< 10 pF
E	± .0.5%	≥ 10 pF
F	± 1%	≥ 10 pF
G	± 2%	≥ 10 pF
J	± 5%	≥ 10 pF
K	± 10%	≥ 10 pF
M	± 20%	≥ 10 pF

LENGTH (L) INCH (mm)	WIDTH (W) INCH (mm)	THICKNESS (T) INCH (mm)	METALIZATION BAND (M.B.) INCH (mm)
0.080 ± 0.010 (2.03 ± 0.25)	0.050 ± 0.010 (1.27 ± 0.25)	0.055 MAX (1.40 MAX)	0.005 to 0.030 (0.127 to 0.762)

Termination Codes

Code	RoHS Comp.	Typical Application	Termination Build up	Recommended Reflow Temp.
N	No	Solder Reflow	90% Tin/10% Lead Plated Nickel Barrier Silver Base	220°C to 260°C Typical
T	Yes	Solder Reflow	100% Tin Plated Nickel Barrier Silver Base	220°C to 260°C Typical
P	Yes	Conductive Epoxy	Palladium-Silver Non-Magnetic	Cure Epoxy as per Manufacturer's Spec.

Other terminations available. Please contact factory.

Call factory for digital copy of S2P files.

Working Voltage

Code	WVDC
1	25
2	50
3	100
A	150
4	200
&	250

Packaging Codes

1 = Unmarked, Tape & Reel
2 = Laser Marked, Tape & Reel
5 = Unmarked, Waffle Pack
6 = Laser Marked, Waffle Pack
Laser Marking available
at extra cost (except 0402 size)

RoHS

Code	Compliant
N	No
C	Yes

Presidio's NPO capacitors can be
upscreened to SPACE LEVEL testing.
Consult the factory for details.
Some voltage derating may apply.

PART NUMBER EXAMPLE (How to Order)

0805	NPO	2R0	B	&	N	1	N	—
Size	Dielectric	Capacitance (2 pF)	Capacitance Tolerance (± 0.1 pF)	Voltage (250V)	Termination (Plated SnPb)	Packaging (Tape & Reel)	Not RoHS Compliant	Design-In Code (optional) (See end of catalog)



PRESIDIO COMPONENTS, INC.

7169 Construction Court, San Diego, CA 92121 • +1-858-578-9390 • info@presidiocomponents.com

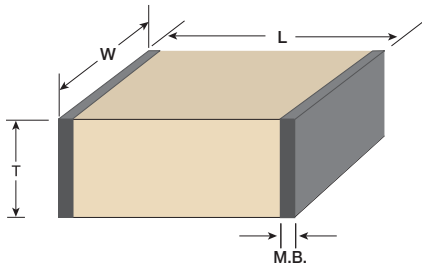
1010 HIGH Q NPO CERAMIC CAPACITORS FOR RF & MICROWAVE

PRESIDIO PART NUMBER	CAP. (pF)	TOL.	WVDC STD, EXT
1010NPO0R1_6N1N-	0.1	A,B	500,1500
1010NPO0R2_6N1N-	0.2	A,B	500,1500
1010NPO0R3_6N1N-	0.3	A,B,C	500,1500
1010NPO0R4_6N1N-	0.4	A,B,C	500,1500
1010NPO0R5_6N1N-	0.5	A,B,C	500,1500
1010NPO0R6_6N1N-	0.6	A,B,C	500,1500
1010NPO0R7_6N1N-	0.7	A,B,C	500,1500
1010NPO0R8_6N1N-	0.8	A,B,C	500,1500
1010NPO0R9_6N1N-	0.9	A,B,C	500,1500
1010NPO1R0_6N1N-	1.0	A,B,C	500,1500
1010NPO1R1_6N1N-	1.1	A,B,C,D	500,1500
1010NPO1R2_6N1N-	1.2	A,B,C,D	500,1500
1010NPO1R3_6N1N-	1.3	A,B,C,D	500,1500
1010NPO1R5_6N1N-	1.5	A,B,C,D	500,1500
1010NPO1R6_6N1N-	1.6	A,B,C,D	500,1500
1010NPO1R8_6N1N-	1.8	A,B,C,D	500,1500
1010NPO2R0_6N1N-	2.0	A,B,C,D	500,1500
1010NPO2R2_6N1N-	2.2	A,B,C,D	500,1500
1010NPO2R4_6N1N-	2.4	A,B,C,D	500,1500
1010NPO2R7_6N1N-	2.7	A,B,C,D	500,1500
1010NPO3R0_6N1N-	3.0	A,B,C,D	500,1500
1010NPO3R3_6N1N-	3.3	A,B,C,D	500,1500
1010NPO3R6_6N1N-	3.6	A,B,C,D	500,1500
1010NPO3R9_6N1N-	3.9	A,B,C,D	500,1500
1010NPO4R3_6N1N-	4.3	A,B,C,D	500,1500
1010NPO4R7_6N1N-	4.7	A,B,C,D	500,1500
1010NPO5R1_6N1N-	5.1	A,B,C,D	500,1500
1010NPO5R6_6N1N-	5.6	A,B,C,D	500,1500
1010NPO6R2_6N1N-	6.2	A,B,C,D	500,1500
1010NPO6R8_6N1N-	6.8	A,B,C,D	500,1500
1010NPO7R5_6N1N-	7.5	A,B,C,D	500,1500

PRESIDIO PART NUMBER	CAP. (pF)	TOL.	WVDC STD, EXT
1010NPO8R2_6N1N-	8.2	A,B,C,D	500,1500
1010NPO9R1_6N1N-	9.1	A,B,C,D	500,1500
1010NPO100_6N1N-	10	F,G,J,K,M	500,1500
1010NPO110_6N1N-	11	F,G,J,K,M	500,1500
1010NPO120_6N1N-	12	F,G,J,K,M	500,1500
1010NPO130_6N1N-	13	F,G,J,K,M	500,1500
1010NPO150_6N1N-	15	F,G,J,K,M	500,1500
1010NPO160_6N1N-	16	F,G,J,K,M	500,1500
1010NPO180_6N1N-	18	F,G,J,K,M	500,1500
1010NPO200_6N1N-	20	F,G,J,K,M	500,1500
1010NPO220_6N1N-	22	F,G,J,K,M	500,1500
1010NPO240_6N1N-	24	F,G,J,K,M	500,1500
1010NPO270_6N1N-	27	F,G,J,K,M	500,1500
1010NPO300_6N1N-	30	F,G,J,K,M	500,1500
1010NPO330_6N1N-	33	F,G,J,K,M	500,1500
1010NPO360_6N1N-	36	F,G,J,K,M	500,1500
1010NPO390_6N1N-	39	F,G,J,K,M	500,1500
1010NPO430_6N1N-	43	F,G,J,K,M	500,1500
1010NPO470_6N1N-	47	F,G,J,K,M	500,1500
1010NPO510_6N1N-	51	F,G,J,K,M	500,1500
1010NPO560_6N1N-	56	F,G,J,K,M	500,1500
1010NPO620_6N1N-	62	F,G,J,K,M	500,1500
1010NPO680_6N1N-	68	F,G,J,K,M	500,1500
1010NPO750_6N1N-	75	F,G,J,K,M	500,1500
1010NPO820_6N1N-	82	F,G,J,K,M	500,1500
1010NPO910_6N1N-	91	F,G,J,K,M	500,1500
1010NPO101_6N1N-	100	F,G,J,K,M	500,1500
1010NPO111_5N1N-	110	F,G,J,K,M	300,1500
1010NPO121_5N1N-	120	F,G,J,K,M	300,1000
1010NPO131_5N1N-	130	F,G,J,K,M	300,1000
1010NPO151_5N1N-	150	F,G,J,K,M	300,1000

PRESIDIO PART NUMBER	CAP. (pF)	TOL.	WVDC STD, EXT
1010NPO161_5N1N-	160	F,G,J,K,M	300,1000
1010NPO181_5N1N-	180	F,G,J,K,M	300,1000
1010NPO201_5N1N-	200	F,G,J,K,M	300,1000
1010NPO221_4N1N-	220	F,G,J,K,M	200,1000
1010NPO241_4N1N-	240	F,G,J,K,M	200,600
1010NPO271_4N1N-	270	F,G,J,K,M	200,600
1010NPO301_4N1N-	300	F,G,J,K,M	200,600
1010NPO331_4N1N-	330	F,G,J,K,M	200,600
1010NPO361_4N1N-	360	F,G,J,K,M	200,600
1010NPO391_4N1N-	390	F,G,J,K,M	200,600
1010NPO431_4N1N-	430	F,G,J,K,M	200,600
1010NPO471_4N1N-	470	F,G,J,K,M	200,600
1010NPO511_3N1N-	510	F,G,J,K,M	100,300
1010NPO561_3N1N-	560	F,G,J,K,M	100,300
1010NPO621_3N1N-	620	F,G,J,K,M	100,300
1010NPO681_2N1N-	680	F,G,J,K,M	50,300
1010NPO751_2N1N-	750	F,G,J,K,M	50,300
1010NPO821_2N1N-	820	F,G,J,K,M	50,300
1010NPO911_2N1N-	910	F,G,J,K,M	50,300
1010NPO102_2N1N-	1000	F,G,J,K,M	50,300
1010NPO122_2N1N-	1200	F,G,J,K,M	50
1010NPO152_2N1N-	1500	F,G,J,K,M	50
1010NPO182_2N1N-	1800	F,G,J,K,M	50
1010NPO222_2N1N-	2200	F,G,J,K,M	50
1010NPO272_2N1N-	2700	F,G,J,K,M	50
1010NPO332_2N1N-	3300	F,G,J,K,M	50
1010NPO392_2N1N-	3900	F,G,J,K,M	50
1010NPO472_2N1N-	4700	F,G,J,K,M	50
1010NPO562_2N1N-	5600	F,G,J,K,M	50

For other cap values contact factory.
Voltages in **BOLD** for military and space.



Capacitance Codes for Multilayer Capacitor

First Two Digits = Significant Figures of Capacitance
in Picofarads

Third Digit = Additional Number of Zeros
Example:

0R1 = 0.1 pF
1R0 = 1 pF
100 = 10 pF
101 = 100 pF
102 = 1,000 pF
103 = 10,000 pF

Capacitance Tolerance Codes

Code	Tolerance	Cap Range
A	± 0.05 pF	< 10 pF
B	± 0.1 pF	< 10 pF
C	± 0.25 pF	< 10 pF
D	± 0.5 pF	< 10 pF

E	± 0.5%	≥ 10 pF
F	± 1%	≥ 10 pF
G	± 2%	≥ 10 pF
J	± 5%	≥ 10 pF
K	± 10%	≥ 10 pF
M	± 20%	≥ 10 pF

LENGTH (L) INCH (mm)	WIDTH (W) INCH (mm)	THICKNESS (T) INCH (mm)	METALIZATION BAND (M.B.) INCH (mm)
0.110 + 0.020 / - 0.010 (2.794 + 0.508 / - 0.254)	0.110 ± 0.015 (2.794 ± 0.381)	0.102 MAX (2.591 MAX)	0.005 to 0.030 (0.127 to 0.762)

Termination Codes

Code	RoHS Comp.	Typical Application	Termination Build up	Recommended Reflow Temp.
N	No	Solder Reflow	90% Tin/10% Lead Plated Nickel Barrier Silver Base	220°C to 260°C Typical
T	Yes	Solder Reflow	100% Tin Plated Nickel Barrier Silver Base	220°C to 260°C Typical
G	Yes	Conductive Epoxy, Wire Bondable	50 μ" Gold Typical Nickel Barrier Silver Base	Cure Epoxy as per Manufacturer's Spec.
P	Yes	Conductive Epoxy	Palladium-Silver Non-Magnetic	Cure Epoxy as per Manufacturer's Spec.
X	Yes	Solder Reflow	100% Tin Plated Non-Magnetic Barrier Silver Base	220°C to 260°C Typical

Working Voltage

Code	WVDC	Code	WVDC
2	50	5	300
3	100	6	500
A	150	#	800
4	200	9	1000
&	250	N	1500

RoHS

Code	Compliant
N	No
C	Yes

Packaging Codes

- 1 = Unmarked,
7" Tape & Reel
 - 2 = Laser Marked,
7" Tape & Reel
 - M = Laser Marked, Vertical
Orientation, 7" Tape
& Reel
 - 5 = Unmarked,
Waffle Pack
 - 6 = Laser Marked,
Waffle Pack
- Laser Marking available at
extra cost (except 0402 size)

**Presidio's NPO capacitors can be upscreened
to SPACE LEVEL testing. Consult the factory for
details. Some voltage derating may apply.**

PART NUMBER EXAMPLE (How to Order)

1010	NPO	101	J	6	N	1	N	—
Size	Dielectric	Capacitance (100 pF)	Capacitance Tolerance (± 5%)	Voltage (500 V)	Termination (Plated SnPb)	Packaging (Tape and Reel)	Not RoHS Compliant	Design-In Code (See end of catalog)

Call factory for digital copy of S2P files.

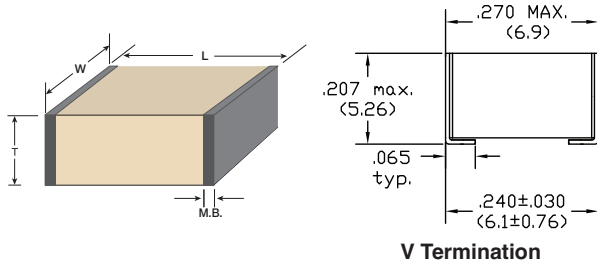
2525 HIGH Q NPO CERAMIC CAPACITORS FOR RF & MICROWAVE

PRESIDIO PART NUMBER	CAP. (pF)	TOL.	WVDC STD, EXT
2525NPO0R1_QT1C-	0.1	B,C,D	2.5K, 3.6K
2525NPO0R2_QT1C-	0.2	B,C,D	2.5K, 3.6K
2525NPO0R3_QT1C-	0.3	B,C,D	2.5K, 3.6K
2525NPO0R4_QT1C-	0.4	B,C,D	2.5K, 3.6K
2525NPO0R5_QT1C-	0.5	B,C,D	2.5K, 3.6K
2525NPO0R6_QT1C-	0.6	B,C,D	2.5K, 3.6K
2525NPO0R7_QT1C-	0.7	B,C,D	2.5K, 3.6K
2525NPO0R8_QT1C-	0.8	B,C,D	2.5K, 3.6K
2525NPO0R9_QT1C-	0.9	B,C,D	2.5K, 3.6K
2525NPO1R0_QT1C-	1.0	B,C,D	2.5K, 3.6K
2525NPO1R1_QT1C-	1.1	B,C,D	2.5K, 3.6K
2525NPO1R2_QT1C-	1.2	B,C,D	2.5K, 3.6K
2525NPO1R3_QT1C-	1.3	B,C,D	2.5K, 3.6K
2525NPO1R5_QT1C-	1.5	B,C,D	2.5K, 3.6K
2525NPO1R6_QT1C-	1.6	B,C,D	2.5K, 3.6K
2525NPO1R8_QT1C-	1.8	B,C,D	2.5K, 3.6K
2525NPO2R0_QT1C-	2.0	B,C,D	2.5K, 3.6K
2525NPO2R2_QT1C-	2.2	B,C,D	2.5K, 3.6K
2525NPO2R4_QT1C-	2.4	B,C,D	2.5K, 3.6K
2525NPO2R7_QT1C-	2.7	B,C,D	2.5K, 3.6K
2525NPO3R0_QT1C-	3.0	B,C,D	2.5K, 3.6K
2525NPO3R3_QT1C-	3.3	B,C,D	2.5K, 3.6K
2525NPO3R6_QT1C-	3.6	B,C,D	2.5K, 3.6K
2525NPO3R9_QT1C-	3.9	B,C,D	2.5K, 3.6K
2525NPO4R3_QT1C-	4.3	B,C,D	2.5K, 3.6K
2525NPO4R7_QT1C-	4.7	B,C,D	2.5K, 3.6K
2525NPO5R1_QT1C-	5.1	B,C,D	2.5K, 3.6K
2525NPO5R6_QT1C-	5.6	B,C,D	2.5K, 3.6K
2525NPO6R2_QT1C-	6.2	B,C,D	2.5K, 3.6K
2525NPO6R8_QT1C-	6.8	B,C,D	2.5K, 3.6K
2525NPO7R5_QT1C-	7.5	B,C,D	2.5K, 3.6K

PRESIDIO PART NUMBER	CAP. (pF)	TOL.	WVDC STD, EXT
2525NPO8R2_QT1C-	8.2	B,C,D	2.5K, 3.6K
2525NPO9R1_QT1C-	9.1	B,C,D	2.5K, 3.6K
2525NPO100_QT1C-	10	F,G,J,K,M	2.5K, 3.6K
2525NPO110_QT1C-	11	F,G,J,K,M	2.5K, 3.6K
2525NPO120_QT1C-	12	F,G,J,K,M	2.5K, 3.6K
2525NPO130_QT1C-	13	F,G,J,K,M	2.5K, 3.6K
2525NPO150_QT1C-	15	F,G,J,K,M	2.5K, 3.6K
2525NPO160_QT1C-	16	F,G,J,K,M	2.5K, 3.6K
2525NPO180_QT1C-	18	F,G,J,K,M	2.5K, 3.6K
2525NPO200_QT1C-	20	F,G,J,K,M	2.5K, 3.6K
2525NPO220_QT1C-	22	F,G,J,K,M	2.5K, 3.6K
2525NPO240_QT1C-	24	F,G,J,K,M	2.5K, 3.6K
2525NPO270_QT1C-	27	F,G,J,K,M	2.5K, 3.6K
2525NPO300_QT1C-	30	F,G,J,K,M	2.5K, 3.6K
2525NPO330_QT1C-	33	F,G,J,K,M	2.5K, 3.6K
2525NPO360_QT1C-	36	F,G,J,K,M	2.5K, 3.6K
2525NPO390_QT1C-	39	F,G,J,K,M	2.5K, 3.6K
2525NPO430_QT1C-	43	F,G,J,K,M	2.5K, 3.6K
2525NPO470_QT1C-	47	F,G,J,K,M	2.5K, 3.6K
2525NPO510_QT1C-	51	F,G,J,K,M	2.5K, 3.6K
2525NPO560_QT1C-	56	F,G,J,K,M	2.5K, 3.6K
2525NPO620_QT1C-	62	F,G,J,K,M	2.5K, 3.6K
2525NPO680_QT1C-	68	F,G,J,K,M	2.5K, 3.6K
2525NPO750_QT1C-	75	F,G,J,K,M	2.5K, 3.6K
2525NPO820_QT1C-	82	F,G,J,K,M	2.5K, 3.6K
2525NPO910_QT1C-	91	F,G,J,K,M	2.5K, 3.6K
2525NPO101_QT1C-	100	F,G,J,K,M	2.5K, 3.6K
2525NPO111_QT1C-	110	F,G,J,K,M	2.5K, 3.0K
2525NPO121_QT1C-	120	F,G,J,K,M	2.5K, 3.0K
2525NPO131_QT1C-	130	F,G,J,K,M	2.5K, 3.0K
2525NPO151_QT1C-	150	F,G,J,K,M	2.5K, 3.0K

PRESIDIO PART NUMBER	CAP. (pF)	TOL.	WVDC STD, EXT
2525NPO161_QT1C-	160	F,G,J,K,M	2.5K, 3.0K
2525NPO181_QT1C-	180	F,G,J,K,M	2.5K, 3.0K
2525NPO201_QT1C-	200	F,G,J,K,M	2.5K, 3.0K
2525NPO221_QT1C-	220	F,G,J,K,M	2.5K, 3.0K
2525NPO241_QT1C-	240	F,G,J,K,M	2.5K, 3.0K
2525NPO271_QT1C-	270	F,G,J,K,M	2.5K, 3.0K
2525NPO301_NT1C-	300	F,G,J,K,M	1.5K, 2.0K
2525NPO331_NT1C-	330	F,G,J,K,M	1.5K, 2.0K
2525NPO361_NT1C-	360	F,G,J,K,M	1.5K, 2.0K
2525NPO391_NT1C-	390	F,G,J,K,M	1.5K, 2.0K
2525NPO431_NT1C-	430	F,G,J,K,M	1.5K, 2.0K
2525NPO471_NT1C-	470	F,G,J,K,M	1.5K, 2.0K
2525NPO511_9T1C-	510	F,G,J,K,M	1.0K, 1.5K
2525NPO561_9T1C-	560	F,G,J,K,M	1.0K, 1.5K
2525NPO621_9T1C-	620	F,G,J,K,M	1.0K, 1.5K
2525NPO681_9T1C-	680	F,G,J,K,M	1.0K, 1.5K
2525NPO751_9T1C-	750	F,G,J,K,M	1.0K, 1.5K
2525NPO821_9T1C-	820	F,G,J,K,M	1.0K, 1.5K
2525NPO911_9T1C-	910	F,G,J,K,M	1.0K, 1.5K
2525NPO102_9T1C-	1000	F,G,J,K,M	1.0K, 1.5K
2525NPO122_9T1C-	1200	F,G,J,K,M	1.0K, 1.5K
2525NPO152_6T1C-	1500	F,G,J,K,M	0.5K, 0.8K
2525NPO182_6T1C-	1800	F,G,J,K,M	0.5K, 0.8K
2525NPO222_5T1C-	2200	F,G,J,K,M	0.3K, 0.5K
2525NPO242_5T1C-	2400	F,G,J,K,M	0.3K, 0.5K
2525NPO272_5T1C-	2700	F,G,J,K,M	0.3K, 0.5K
2525NPO302_5T1C-	3000	F,G,J,K,M	0.3K, 0.5K
2525NPO332_5T1C-	3300	F,G,J,K,M	0.3K, 0.5K
2525NPO392_5T1C-	3900	F,G,J,K,M	0.3K, 0.5K
2525NPO472_5T1C-	4700	F,G,J,K,M	0.3K, 0.5K
2525NPO562_5T1C-	5600	F,G,J,K,M	0.3K, 0.5K

For other cap values contact factory.



Capacitance Codes for Multilayer Capacitor

First Two Digits = Significant Figures of Capacitance
in Picofarads

Third Digit = Additional Number of Zeros

Example:
 0R1 = 0.1 pF
 1R0 = 1 pF
 100 = 10 pF
 101 = 100 pF
 102 = 1,000 pF
 103 = 10,000 pF

Capacitance Tolerance Codes

Code	Tolerance	Cap Range
B	± 0.1 pF	< 10 pF
C	± 0.25 pF	< 10 pF
D	± 0.5 pF	< 10 pF
F	± 1%	≥ 10 pF
G	± 2%	≥ 10 pF
J	± 5%	≥ 10 pF
K	± 10%	≥ 10 pF
M	± 20%	≥ 10 pF

LENGTH (L) INCH (mm)	WIDTH (W) INCH (mm)	THICKNESS (T) INCH (mm)	METALIZATION BAND (M.B.) INCH (mm)
0.250 +0.020/-0.015 (6.35 +0.51/-0.38)	0.250 +0.020/-0.015 (6.35 +0.51/-0.38)	0.165 MAX (4.19 MAX) V Term: 0.207 MAX (5.25 MAX)	0.010 to 0.040 (0.254 to 1.016) V Term: 0.068 MAX (1.727 MAX)

Termination Codes

Code	RoHS Comp.	Typical Application	Termination Build up	Recommended Reflow Temp.
N	No	Solder Reflow	90% Tin/10% Lead Plated Nickel Barrier Silver Base	220°C to 260°C Typical
T	Yes	Solder Reflow	100% Tin Plated Nickel Barrier Silver Base	220°C to 260°C Typical
P	Yes	Conductive Epoxy	Palladium-Silver Non-Magnetic	Cure Epoxy as per Manufacturer's Spec.
V	Yes	Solder Reflow	Silver Finish Frame Non-Magnetic	220°C to 260°C Typical

Working Voltage

Code	WVDC	Code	WVDC
5	300	P	2000
6	500	Q	2500
#	800	R	3000
9	1000	S	3600
N	1500		

Packaging Codes

5 = Unmarked,
Waffle Pack
 6 = Laser Marked,
Waffle Pack
 Laser Marking
available at extra cost
(except 0402 size)

RoHS

Code	Compliant
N	No
C	Yes

Dielectrics

NPO
UP

**Presidio's NPO capacitors can be
upscreened to SPACE LEVEL testing.
Consult the factory for details.
Some voltage derating may apply.**

PART NUMBER EXAMPLE (How to Order)

2525	NPO	101	J	Q	T	1	C	—
Size	Dielectric	Capacitance (10 pF)	Capacitance Tolerance (± 5%)	Voltage (2500 V)	Termination (100% Tin)	Packaging (Tape and Reel)	RoHS Compliant	Design-In Code (See end of catalog)

3838 HIGH Q NPO CERAMIC CAPACITORS FOR RF & MICROWAVE

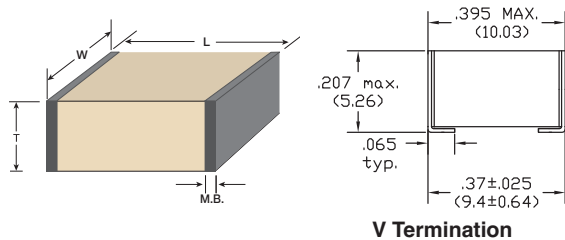
(Larger Sizes Available)

PRESIDIO PART NUMBER	CAP. (pF)	TOL.	WVDC STD, EXT
3838NPO1R0_ST1C-	1.0	B,C,D	3.6K, 7.2K
3838NPO1R1_ST1C-	1.1	B,C,D	3.6K, 7.2K
3838NPO1R2_ST1C-	1.2	B,C,D	3.6K, 7.2K
3838NPO1R3_ST1C-	1.3	B,C,D	3.6K, 7.2K
3838NPO1R5_ST1C-	1.5	B,C,D	3.6K, 7.2K
3838NPO1R6_ST1C-	1.6	B,C,D	3.6K, 7.2K
3838NPO1R8_ST1C-	1.8	B,C,D	3.6K, 7.2K
3838NPO2R0_ST1C-	2.0	B,C,D	3.6K, 7.2K
3838NPO2R2_ST1C-	2.2	B,C,D	3.6K, 7.2K
3838NPO2R4_ST1C-	2.4	B,C,D	3.6K, 7.2K
3838NPO2R7_ST1C-	2.7	B,C,D	3.6K, 7.2K
3838NPO3R0_ST1C-	3.0	B,C,D	3.6K, 7.2K
3838NPO3R3_ST1C-	3.3	B,C,D	3.6K, 7.2K
3838NPO3R6_ST1C-	3.6	B,C,D	3.6K, 7.2K
3838NPO3R9_ST1C-	3.9	B,C,D	3.6K, 7.2K
3838NPO4R3_ST1C-	4.3	B,C,D	3.6K, 7.2K
3838NPO4R7_ST1C-	4.7	B,C,D	3.6K, 7.2K
3838NPO5R1_ST1C-	5.1	B,C,D	3.6K, 7.2K
3838NPO5R6_ST1C-	5.6	B,C,D	3.6K, 7.2K
3838NPO6R2_ST1C-	6.2	B,C,D	3.6K, 7.2K
3838NPO6R8_ST1C-	6.8	B,C,D	3.6K, 7.2K
3838NPO7R5_ST1C-	7.5	B,C,D	3.6K, 7.2K
3838NPO8R2_ST1C-	8.2	B,C,D	3.6K, 7.2K
3838NPO9R1_ST1C-	9.1	B,C,D	3.6K, 7.2K
3838NPO100_ST1C-	10	F,G,J,K,M	3.6K, 7.2K
3838NPO110_ST1C-	11	F,G,J,K,M	3.6K, 7.2K
3838NPO120_ST1C-	12	F,G,J,K,M	3.6K, 7.2K
3838NPO130_ST1C-	13	F,G,J,K,M	3.6K, 7.2K
3838NPO150_ST1C-	15	F,G,J,K,M	3.6K, 7.2K
3838NPO160_ST1C-	16	F,G,J,K,M	3.6K, 7.2K

PRESIDIO PART NUMBER	CAP. (pF)	TOL.	WVDC STD, EXT
3838NPO180_ST1C-	18	F,G,J,K,M	3.6K, 7.2K
3838NPO200_ST1C-	20	F,G,J,K,M	3.6K, 7.2K
3838NPO220_ST1C-	22	F,G,J,K,M	3.6K, 7.2K
3838NPO240_ST1C-	24	F,G,J,K,M	3.6K, 7.2K
3838NPO270_ST1C-	27	F,G,J,K,M	3.6K, 7.2K
3838NPO300_ST1C-	30	F,G,J,K,M	3.6K, 7.2K
3838NPO330_ST1C-	33	F,G,J,K,M	3.6K, 7.2K
3838NPO360_ST1C-	36	F,G,J,K,M	3.6K, 7.2K
3838NPO390_ST1C-	39	F,G,J,K,M	3.6K, 7.2K
3838NPO430_ST1C-	43	F,G,J,K,M	3.6K, 7.2K
3838NPO470_ST1C-	47	F,G,J,K,M	3.6K, 7.2K
3838NPO510_ST1C-	51	F,G,J,K,M	3.6K, 7.2K
3838NPO560_ST1C-	56	F,G,J,K,M	3.6K, 7.2K
3838NPO620_ST1C-	62	F,G,J,K,M	3.6K, 7.2K
3838NPO680_ST1C-	68	F,G,J,K,M	3.6K, 7.2K
3838NPO750_ST1C-	75	F,G,J,K,M	3.6K, 7.2K
3838NPO820_ST1C-	82	F,G,J,K,M	3.6K, 7.2K
3838NPO910_ST1C-	91	F,G,J,K,M	3.6K, 7.2K
3838NPO101_ST1C-	100	F,G,J,K,M	3.6K, 7.2K
3838NPO111_ST1C-	110	F,G,J,K,M	3.6K, 5.0K
3838NPO121_ST1C-	120	F,G,J,K,M	3.6K, 5.0K
3838NPO131_ST1C-	130	F,G,J,K,M	3.6K, 5.0K
3838NPO151_ST1C-	150	F,G,J,K,M	3.6K, 5.0K
3838NPO161_ST1C-	160	F,G,J,K,M	3.6K, 5.0K
3838NPO181_ST1C-	180	F,G,J,K,M	3.6K, 5.0K
3838NPO201_ST1C-	200	F,G,J,K,M	3.6K, 5.0K
3838NPO221_ST1C-	220	F,G,J,K,M	3600
3838NPO241_ST1C-	240	F,G,J,K,M	3600
3838NPO271_ST1C-	270	F,G,J,K,M	3600
3838NPO301_ST1C-	300	F,G,J,K,M	3600

PRESIDIO PART NUMBER	CAP. (pF)	TOL.	WVDC STD, EXT
3838NPO331_ST1C-	330	F,G,J,K,M	3600
3838NPO361_ST1C-	360	F,G,J,K,M	3600
3838NPO391_ST1C-	390	F,G,J,K,M	3600
3838NPO431_QT1C-	430	F,G,J,K,M	2.5K, 3.6K
3838NPO471_QT1C-	470	F,G,J,K,M	2.5K, 3.6K
3838NPO511_QT1C-	510	F,G,J,K,M	2.5K, 3.6K
3838NPO561_QT1C-	560	F,G,J,K,M	2.5K, 3.6K
3838NPO621_QT1C-	620	F,G,J,K,M	2500
3838NPO681_QT1C-	680	F,G,J,K,M	2500
3838NPO751_QT1C-	750	F,G,J,K,M	2500
3838NPO821_QT1C-	820	F,G,J,K,M	1.0K, 2.5K
3838NPO911_QT1C-	910	F,G,J,K,M	1.0K, 2.5K
3838NPO102_QT1C-	1000	F,G,J,K,M	1.0K, 2.5K
3838NPO112_QT1C-	1100	F,G,J,K,M	1.0K, 2.5K
3838NPO122_QT1C-	1200	F,G,J,K,M	1.0K, 2.5K
3838NPO152_QT1C-	1500	F,G,J,K,M	1.0K, 2.5K
3838NPO182_QT1C-	1800	F,G,J,K,M	1.0K, 2.5K
3838NPO222_QT1C-	2200	F,G,J,K,M	1.0K, 2.5K
3838NPO242_QT1C-	2400	F,G,J,K,M	1.0K, 2.5K
3838NPO272_QT1C-	2700	F,G,J,K,M	0.5K, 2K
3838NPO302_QT1C-	3000	F,G,J,K,M	500, 2000
3838NPO332_QT1C-	3300	F,G,J,K,M	0.5K, 2K
3838NPO362_QT1C-	3600	F,G,J,K,M	0.5K, 2K
3838NPO392_QT1C-	3900	F,G,J,K,M	0.5K, 2K
3838NPO432_QT1C-	4300	F,G,J,K,M	0.5K, 2K
3838NPO472_QT1C-	4700	F,G,J,K,M	0.5K, 2K
3838NPO512_QT1C-	5100	G,J,K,M	0.5K, 2K
3838NPO562_QT1C-	5600	G,J,K,M	200
3838NPO682_QT1C-	6800	G,J,K,M	200
3838NPO822_QT1C-	8200	G,J,K,M	200
3838NPO103_QT1C-	10,000	G,J,K,M	200

For other cap values contact factory.



Capacitance Codes for Multilayer Capacitor

First Two Digits = Significant Figures of Capacitance in Picofarads

Third Digit = Additional Number of Zeros

Example: 0R1 = 0.1 pF
1R0 = 1 pF
100 = 10 pF
101 = 100 pF
102 = 1,000 pF
103 = 10,000 pF

Capacitance Tolerance Codes

Code	Tolerance	Cap Range
B	± 0.1 pF	< 10 pF
C	± 0.25 pF	< 10 pF
D	± 0.5 pF	< 10 pF
F	± 1%	≥ 10 pF
G	± 2%	≥ 10 pF
J	± 5%	≥ 10 pF
K	± 10%	≥ 10 pF
M	± 20%	≥ 10 pF

LENGTH (L) INCH (mm)	WIDTH (W) INCH (mm)	THICKNESS (T) INCH (mm)	METALIZATION BAND (M.B.) INCH (mm)
0.380 ± 0.015 (9.652 ± 0.381)	0.380 ± 0.015 (9.652 ± 0.381)	0.170 MAX (4.32 MAX) V Term: 0.207 Max (5.26 MAX)	0.010 to 0.040 (0.254 to 1.016) V Term: 0.068 MAX (1.727 MAX)

Termination Codes

Code	RoHS Comp.	Typical Application	Termination Build up	Recommended Reflow Temp.
N	No	Solder Reflow	90% Tin/10% Lead Plated Nickel Barrier Silver Base	220°C to 260°C Typical
T	Yes	Solder Reflow	100% Tin Plated Nickel Barrier Silver Base	220°C to 260°C Typical
P	Yes	Conductive Epoxy	Palladium-Silver Non-Magnetic	Cure Epoxy as per Manufacturer's Spec.
V	Yes	Solder Reflow	Silver Finish Frame Non-Magnetic	220°C to 260°C Typical

Working Voltage

Code	WVDC	Code	WVDC
4	200	N	1500
&	250	P	2000
5	300	Q	2500
6	500	R	3000
#	800	S	3600
9	1000	U	5000
		+	7200

Packaging Codes

5 = Unmarked, Waffle Pack
6 = Laser Marked, Waffle Pack

Laser Marking available at extra cost (except 0402 size)

RoHS

Code	Compliant
N	No
C	Yes

Dielectrics

Code	Dielectric
NPO	NPO
UP	UP

Presidio's NPO capacitors can be upscreened to SPACE LEVEL testing. Consult the factory for details. Some voltage derating may apply.

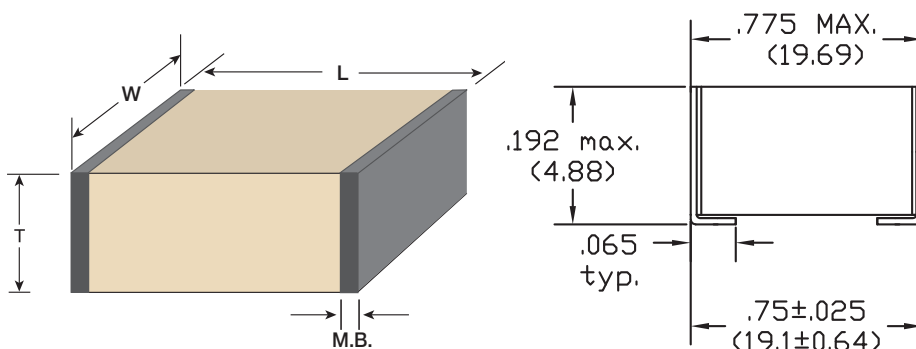
PART NUMBER EXAMPLE (How to Order)

3838	NPO	101	J	S	T	1	C	—
Size	Dielectric	Capacitance (100 pF)	Capacitance Tolerance (± 5%)	Voltage (3600 V)	Termination (100% Tin)	Packaging (Tape and Reel)	RoHS Compliant	Design-In Code (See end of catalog)

7676 HIGH Q NPO CERAMIC CAPACITORS FOR RF & MICROWAVE

PRESIDIO PART NUMBER	Capacitance (pF)	Standard Tolerance	Standard WVDC STD, EXT
7676NPO102JUV6C	1000	G,J,K	3000, 5000
7676NPO512JUV6C	5100	G,J,K	3000, 5000
7676NPO103JRV6C	10,000	G,J,K	1000, 3000

Other capacitance values and voltages available. Contact Factory.



V Termination

Capacitance Codes for Multilayer Capacitor

First Two Digits = Significant Figures of Capacitance In Picofarads

Third Digit = Additional Number of Zeros

Example:
 0R1 = 0.1 pF
 1R0 = 1 pF
 100 = 10 pF
 101 = 100 pF
 102 = 1,000 pF
 103 = 10,000 pF

Packaging Codes

5 = Unmarked, Waffle Pack
 6 = Laser Marked, Waffle Pack

Laser Marking available
 at extra cost (except 0402 size)

Working Voltage

Code	WVDC	Code	WVDC
9	1000	U	5000
P	2000	X	8000
R	3000		

RoHS

Code	Compliant
N	No
C	Yes

Presidio's NPO capacitors can be upscreened to SPACE LEVEL testing. Consult the factory for details. Some voltage derating may apply.

Capacitance Tolerance Codes

Code	Tolerance	Cap Range
B	± 0.1 pF	< 10 pF
C	± 0.25 pF	< 10 pF
D	± 0.5 pF	< 10 pF
F	± 1%	≥ 10 pF
G	± 2%	≥ 10 pF
J	± 5%	≥ 10 pF
K	± 10%	≥ 10 pF
M	± 20%	≥ 10 pF

LENGTH (L) INCH (mm)	WIDTH (W) INCH (mm)	THICKNESS (T) INCH (mm)	METALIZATION BAND (M.B.) INCH (mm)
0.760 ± 0.015 (19.30 ± 0.38)	0.760 ± 0.015 (19.30 ± 0.38)	0.162 Max (4.10 MAX) V Term: 0.192 Max (4.88 MAX)	0.010 to 0.040 (0.254 to 1.016) V Term: 0.068 Max (1.727 MAX)

Termination Codes

Code	RoHS Comp.	Typical Application	Termination Build up	Recommended Reflow Temp.
P	Yes	Conductive Epoxy	Palladium-Silver Non-Magnetic	Cure Epoxy as per Manufacturer's Spec.
V	Yes	Solder Reflow	Silver Finish Frame Non-Magnetic	220°C to 260°C Typical

PART NUMBER EXAMPLE (How to Order)

7676	NPO	103	J	R	V	1	C	—
Size	Dielectric	Capacitance (10,000 pF)	Capacitance Tolerance (± 5%)	Voltage (3000 V)	Termination (Silver Finish Frame)	Packaging (Tape and Reel)	RoHS Compliant	Design-In Code (See end of catalog)



Also Available
 High Q NPO Ceramic
 Stacked Capacitors
 Contact Factory for Details.

MILITARY SPECIFICATION PART NUMBERS

CDR11 & CDR12 — MIL-PRF-55681

CAPACITOR CHARACTERISTICS — SIZE 0505

Type Designation	Capacitance (pF)	Cap. Tolerance	Rated Temp. & Voltage-Temp. Limits	Rated Voltage (V dc)
CDR1-BP0R1-B -	0.1	B	BP	50, 150
CDR1-BP0R2-B - -	0.2	B	BP	50, 150
CDR1-BP0R3 - - - -	0.3	B, C	BP	50, 150
CDR1-BP0R4 - - - -	0.4	B, C	BP	50, 150
CDR1-BP0R5 - - - -	0.5	B, C, D	BP	50, 150
CDR1-BP0R6 - - - -	0.6	B, C, D	BP	50, 150
CDR1-BP0R7 - - - -	0.7	B, C, D	BP	50, 150
CDR1-BP0R8 - - - -	0.8	B, C, D	BP	50, 150
CDR1-BP0R9 - - - -	0.9	B, C, D	BP	50, 150
CDR1-BP1R0 - - - -	1	B, C, D	BP	50, 150
CDR1-BP1R1 - - - -	1.1	B, C, D	BP	50, 150
CDR1-BP1R2 - - - -	1.2	B, C, D	BP	50, 150
CDR1-BP1R3 - - - -	1.3	B, C, D	BP	50, 150
CDR1-BP1R4 - - - -	1.4	B, C, D	BP	50, 150
CDR1-BP1R5 - - - -	1.5	B, C, D	BP	50, 150
CDR1-BP1R6 - - - -	1.6	B, C, D	BP	50, 150
CDR1-BP1R7 - - - -	1.7	B, C, D	BP	50, 150
CDR1-BP1R8 - - - -	1.8	B, C, D	BP	50, 150
CDR1-BP1R9 - - - -	1.9	B, C, D	BP	50, 150
CDR1-BP2R0 - - - -	2	B, C, D	BP	50, 150
CDR1-BP2R1 - - - -	2.1	B, C, D	BP	50, 150
CDR1-BP2R2 - - - -	2.2	B, C, D	BP	50, 150
CDR1-BP2R4 - - - -	2.4	B, C, D	BP	50, 150
CDR1-BP2R7 - - - -	2.7	B, C, D	BP	50, 150
CDR1-BP3R0 - - - -	3	B, C, D	BP	50, 150
CDR1-BP3R3 - - - -	3.3	B, C, D	BP	50, 150
CDR1-BP3R6 - - - -	3.6	B, C, D	BP	50, 150
CDR1-BP3R9 - - - -	3.9	B, C, D	BP	50, 150
CDR1-BP4R3 - - - -	4.3	B, C, D	BP	50, 150
CDR1-BP4R7 - - - -	4.7	B, C, D	BP	50, 150
CDR1-BP5R1 - - - -	5.1	B, C, D	BP	50, 150
CDR1-BP5R6 - - - -	5.6	B, C, D	BP	50, 150
CDR1-BP6R2 - - - -	6.2	B, C, D	BP	50, 150
CDR1-BP6R8 - - - -	6.8	B, C, J, K, M	BP	50, 150
CDR1-BP7R5 - - - -	7.5	B, C, J, K, M	BP	50, 150
CDR1-BP8R2 - - - -	8.2	B, C, J, K, M	BP	50, 150
CDR1-BP9R1 - - - -	9.1	B, C, J, K, M	BP	50, 150
CDR1-BP100 - - - -	10	F, G, J, K, M	BP	50, 150
CDR1-BP110 - - - -	11	F, G, J, K, M	BP	50, 150
CDR1-BP120 - - - -	12	F, G, J, K, M	BP	50, 150
CDR1-BP130 - - - -	13	F, G, J, K, M	BP	50, 150
CDR1-BP150 - - - -	15	F, G, J, K, M	BP	50, 150
CDR1-BP160 - - - -	16	F, G, J, K, M	BP	50, 150

SPACE LEVEL 'S'

DLA DWG 06019

Type Designation	Capacitance (pF)	Cap. Tolerance	Rated Temp. & Voltage-Temp. Limits	Rated Voltage (V dc)
CDR1-BP180 - - - -	18	F, G, J, K, M	BP	50, 150
CDR1-BP200 - - - -	20	F, G, J, K, M	BP	50, 150
CDR1-BP220 - - - -	22	F, G, J, K, M	BP	50, 150
CDR1-BP240 - - - -	24	F, G, J, K, M	BP	50, 150
CDR1-BP270 - - - -	27	F, G, J, K, M	BP	50, 150
CDR1-BP300 - - - -	30	F, G, J, K, M	BP	50, 150
CDR1-BP330 - - - -	33	F, G, J, K, M	BP	50, 150
CDR1-BP360 - - - -	36	F, G, J, K, M	BP	50, 150
CDR1-BP390 - - - -	39	F, G, J, K, M	BP	50, 150
CDR1-BP430 - - - -	43	F, G, J, K, M	BP	50, 150
CDR1-BP470 - - - -	47	F, G, J, K, M	BP	50, 150
CDR1-BP510 - - - -	51	F, G, J, K, M	BP	50, 150
CDR1-BP560 - - - -	56	F, G, J, K, M	BP	50, 150
CDR1-BP620 - - - -	62	F, G, J, K, M	BP	50, 150
CDR1-BP680 - - - -	68	F, G, J, K, M	BP	50, 150
CDR1-BP750 - - - -	75	F, G, J, K, M	BP	50, 150
CDR1-BP820 - - - -	82	F, G, J, K, M	BP	50, 150
CDR1-BP910 - - - -	91	F, G, J, K, M	BP	50, 150
CDR1-BP101 - - - -	100	F, G, J, K, M	BP	50, 150
CDR1-BP111 - - - -	110	F, G, J, K, M	BP	50, 100
CDR1-BP121 - - - -	120	F, G, J, K, M	BP	50, 100
CDR1-BP131 - - - -	130	F, G, J, K, M	BP	50, 100
CDR1-BP151 - - - -	150	F, G, J, K, M	BP	50, 100
CDR1-BP161 - - - -	160	F, G, J, K, M	BP	50, 100
CDR1-BP181 - - - -	180	F, G, J, K, M	BP	50, 100
CDR1-BP201 - - - -	200	F, G, J, K, M	BP	50, 100
CDR1-BP221 - - - -	220	F, G, J, K, M	BP	50, 100
CDR1-BP241 - - - -	240	F, G, J, K, M	BP	50, 100
CDR1-BP271 - - - -	270	F, G, J, K, M	BP	50, 100
CDR1-BP301 - - - -	300	F, G, J, K, M	BP	50, 100
CDR1-BP331 - - - -	330	F, G, J, K, M	BP	50, 100
CDR1-BP361 - - - -	360	F, G, J, K, M	BP	50, 100
CDR1-BP391 - - - -	390	F, G, J, K, M	BP	50, 100
CDR1-BP431 - - - -	430	F, G, J, K, M	BP	50, 100
CDR1-BP471 - - - -	470	F, G, J, K, M	BP	50, 100
CDR1-BP511 - - - -	510	F, G, J, K, M	BP	50, 100
CDR1-BP561 - - - -	560	F, G, J, K, M	BP	50, 100
CDR1-BP621 - - - -	620	F, G, J, K, M	BP	50, 100
CDR1-BP681 - - - -	680	F, G, J, K, M	BP	50, 100
CDR1-BP751 - - - -	750	F, G, J, K, M	BP	50, 100
CDR1-BP821 - - - -	820	F, G, J, K, M	BP	50, 100
CDR1-BP911 - - - -	910	F, G, J, K, M	BP	50, 100
CDR1-BP102 - - - -	1,000	F, G, J, K, M	BP	50, 100

PART NUMBER EXAMPLE (How to Order)

Visit our website for the complete MIL-PRF-55681 Specification

CDR11		BP	101	A	F	M		S
Mil Style	Voltage Temperature Limits	Capacitance	Rated Voltage Code	Cap Tolerance Code	Termination Finish		Failure Rate Level	
CDR11	BP = 0±30ppm/°C BG=90±20ppm/°C	3 Digit EIA Code	A = 50V B = 100V K = 150V	B = ± .10 pF < 10pF C = ± .25 pF < 10 pF D = ± .50 pF < 10 pF	M = Palladium/Silver N = Silver-Nickel-Gold		CDR11 Only	M = 1.0%
CDR12				F = ± 1% G = ± 2% J = ± 5% K = ± 10% M = ± 20%	S = Solder Coated, Final with a Minimum of 4% Lead U = Base Metalization, Nickel-Solder Coated (Tin/Lead Alloy with a minimum of 3% Lead) Z = Base Metalization, Nickel-Solder Plated (Tin/Lead Alloy with a minimum of 3% Lead)		CDR12 Only	P = 0.1% R = 0.01% S = 0.001%
Size 0505								

DIMENSIONS — CDR11 AND CDR12 CAPACITORS

Style Per MIL-C-55681	Length (L) Inches (mm)	Width (W) Inches (mm)	Thickness (T) Min Inches (mm)	Thickness (T) Max Inches (mm)	Metalization Band (M.B.) Inches (mm)
CDR11	0.055 ± 0.015 (1.40 ± 0.381)	0.055 ± 0.015 (1.40 ± 0.381)	0.020 (0.508)	0.057 (1.45)	0.010 – 0.005 + 0.010 (0.254 – 0.127 + 0.254)
CDR12	0.055 ± 0.025 (1.40 ± 0.635)	0.055 ± 0.015 (1.40 ± 0.381)	0.020 (0.508)	0.057 (1.45)	0.010 – 0.005 + 0.010 (0.254 – 0.127 + 0.254)

Consult factory for current qualification status.

MILITARY SPECIFICATION PART NUMBERS

CDR13 & CDR14 — MIL-PRF-55681

CAPACITOR CHARACTERISTICS — SIZE 1010

Type Designation	Cap. (pF)	Cap. Tolerance	Rated Temp. & Voltage-Temp. Limits	Rated Voltage (V dc)
CDR1-BP0R1-B --	0.1	B	BP	200, 500
CDR1-BP0R2-B --	0.2	B	BP	200, 500
CDR1-BP0R3 ----	0.3	B, C	BP	200, 500
CDR1-BP0R4 ----	0.4	B, C	BP	200, 500
CDR1-BP0R5 ----	0.5	B, C, D	BP	200, 500
CDR1-BP0R6 ----	0.6	B, C, D	BP	200, 500
CDR1-BP0R7 ----	0.7	B, C, D	BP	200, 500
CDR1-BP0R8 ----	0.8	B, C, D	BP	200, 500
CDR1-BP0R9 ----	0.9	B, C, D	BP	200, 500
CDR1-BP1R0 ----	1	B, C, D	BP	200, 500
CDR1-BP1R1 ----	1.1	B, C, D	BP	200, 500
CDR1-BP1R2 ----	1.2	B, C, D	BP	200, 500
CDR1-BP1R3 ----	1.3	B, C, D	BP	200, 500
CDR1-BP1R4 ----	1.4	B, C, D	BP	200, 500
CDR1-BP1R5 ----	1.5	B, C, D	BP	200, 500
CDR1-BP1R6 ----	1.6	B, C, D	BP	200, 500
CDR1-BP1R7 ----	1.7	B, C, D	BP	200, 500
CDR1-BP1R8 ----	1.8	B, C, D	BP	200, 500
CDR1-BP1R9 ----	1.9	B, C, D	BP	200, 500
CDR1-BP2R0 ----	2	B, C, D	BP	200, 500
CDR1-BP2R1 ----	2.1	B, C, D	BP	200, 500
CDR1-BP2R2 ----	2.2	B, C, D	BP	200, 500
CDR1-BP2R4 ----	2.4	B, C, D	BP	200, 500
CDR1-BP2R7 ----	2.7	B, C, D	BP	200, 500
CDR1-BP3R0 ----	3	B, C, D	BP	200, 500
CDR1-BP3R3 ----	3.3	B, C, D	BP	200, 500
CDR1-BP3R6 ----	3.6	B, C, D	BP	200, 500
CDR1-BP3R9 ----	3.9	B, C, D	BP	200, 500
CDR1-BP4R3 ----	4.3	B, C, D	BP	200, 500
CDR1-BP4R7 ----	4.7	B, C, D	BP	200, 500
CDR1-BP5R1 ----	5.1	B, C, D	BP	200, 500
CDR1-BP5R6 ----	5.6	B, C, D	BP	200, 500
CDR1-BP6R2 ----	6.2	B, C, D	BP	200, 500
CDR1-BP6R8 ----	6.8	B, C, J, K, M	BP	200, 500
CDR1-BP7R5 ----	7.5	B, C, J, K, M	BP	200, 500
CDR1-BP8R2 ----	8.2	B, C, J, K, M	BP	200, 500
CDR1-BP9R1 ----	9.1	B, C, J, K, M	BP	200, 500
CDR1-BP100 ----	10	F, G, J, K, M	BP	200, 500
CDR1-BP110 ----	11	F, G, J, K, M	BP	200, 500
CDR1-BP120 ----	12	F, G, J, K, M	BP	200, 500
CDR1-BP130 ----	13	F, G, J, K, M	BP	200, 500
CDR1-BP150 ----	15	F, G, J, K, M	BP	200, 500
CDR1-BP160 ----	16	F, G, J, K, M	BP	200, 500

Type Designation	Cap. (pF)	Cap. Tolerance	Rated Temp. & Voltage-Temp. Limits	Rated Voltage (V dc)
CDR1-BP180 ----	18	F, G, J, K, M	BP	200, 500
CDR1-BP200 ----	20	F, G, J, K, M	BP	200, 500
CDR1-BP220 ----	22	F, G, J, K, M	BP	200, 500
CDR1-BP240 ----	24	F, G, J, K, M	BP	200, 500
CDR1-BP270 ----	27	F, G, J, K, M	BP	200, 500
CDR1-BP300 ----	30	F, G, J, K, M	BP	200, 500
CDR1-BP330 ----	33	F, G, J, K, M	BP	200, 500
CDR1-BP360 ----	36	F, G, J, K, M	BP	200, 500
CDR1-BP390 ----	39	F, G, J, K, M	BP	200, 500
CDR1-BP430 ----	43	F, G, J, K, M	BP	200, 500
CDR1-BP470 ----	47	F, G, J, K, M	BP	200, 500
CDR1-BP510 ----	51	F, G, J, K, M	BP	200, 500
CDR1-BP560 ----	56	F, G, J, K, M	BP	200, 500
CDR1-BP620 ----	62	F, G, J, K, M	BP	200, 500
CDR1-BP680 ----	68	F, G, J, K, M	BP	200, 500
CDR1-BP750 ----	75	F, G, J, K, M	BP	200, 500
CDR1-BP820 ----	82	F, G, J, K, M	BP	200, 500
CDR1-BP910 ----	91	F, G, J, K, M	BP	200, 500
CDR1-BP101 ----	100	F, G, J, K, M	BP	200, 500
CDR1-BP111 ----	110	F, G, J, K, M	BP	200, 300
CDR1-BP121 ----	120	F, G, J, K, M	BP	200, 300
CDR1-BP131 ----	130	F, G, J, K, M	BP	200, 300
CDR1-BP151 ----	150	F, G, J, K, M	BP	200, 300
CDR1-BP161 ----	160	F, G, J, K, M	BP	200, 300
CDR1-BP181 ----	180	F, G, J, K, M	BP	200, 300
CDR1-BP201 ----	200	F, G, J, K, M	BP	200, 300
CDR1-BP221C ---	220	F, G, J, K, M	BP	200
CDR1-BP241C ---	240	F, G, J, K, M	BP	200
CDR1-BP271C ---	270	F, G, J, K, M	BP	200
CDR1-BP301C ---	300	F, G, J, K, M	BP	200
CDR1-BP331C ---	330	F, G, J, K, M	BP	200
CDR1-BP361C ---	360	F, G, J, K, M	BP	200
CDR1-BP391C ---	390	F, G, J, K, M	BP	200
CDR1-BP431C ---	430	F, G, J, K, M	BP	200
CDR1-BP471C ---	470	F, G, J, K, M	BP	200

SPACE LEVEL 'S'

DLA DWG 06022

Type Designation	Cap. (pF)	Cap. Tolerance	Rated Temp. & Voltage-Temp. Limits	Rated Voltage (V dc)
CDR1-BP511B ---	510	F, G, J, K, M	BP	100
CDR1-BP561B ---	560	F, G, J, K, M	BP	100
CDR1-BP621B ---	620	F, G, J, K, M	BP	100
CDR1-BP681A ---	680	F, G, J, K, M	BP	50
CDR1-BP751A ---	750	F, G, J, K, M	BP	50
CDR1-BP821A ---	820	F, G, J, K, M	BP	50
CDR1-BP911A ---	910	F, G, J, K, M	BP	50
CDR1-BP102A ---	1,000	F, G, J, K, M	BP	50
CDR1-BP112A ---	1,100	F, G, J, K, M	BP	50
CDR1-BP122A ---	1,200	F, G, J, K, M	BP	50
CDR1-BP132A ---	1,300	F, G, J, K, M	BP	50
CDR1-BP152A ---	1,500	F, G, J, K, M	BP	50
CDR1-BP162A ---	1,600	F, G, J, K, M	BP	50
CDR1-BP182A ---	1,800	F, G, J, K, M	BP	50
CDR1-BP202A ---	2,000	F, G, J, K, M	BP	50
CDR1-BP222A ---	2,200	F, G, J, K, M	BP	50
CDR1-BP242A ---	2,400	F, G, J, K, M	BP	50
CDR1-BP272A ---	2,700	F, G, J, K, M	BP	50
CDR1-BP302A ---	3,000	F, G, J, K, M	BP	50
CDR1-BP332A ---	3,300	F, G, J, K, M	BP	50
CDR1-BP362A ---	3,600	F, G, J, K, M	BP	50
CDR1-BP392A ---	3,900	F, G, J, K, M	BP	50
CDR1-BP432A ---	4,300	F, G, J, K, M	BP	50
CDR1-BP472A ---	4,700	F, G, J, K, M	BP	50
CDR1-BP502A ---	5,000	F, G, J, K, M	BP	50
CDR1-BP522A ---	5,100	F, G, J, K, M	BP	50

PART NUMBER EXAMPLE (How to Order)

CDR13	BP	101	C	F	M	S
Mil Style	Voltage Temperature Limits	Capacitance	Rated Voltage Code	Cap Tolerance Code	Termination Finish	Failure Rate Level
CDR13 CDR14 Size 1010	BP = 0±30ppm/°C BG=90±20ppm/°C	3 Digit EIA Code	C = 200V D = 300V E = 500V	B = ± .10 pF < 10pF C = ± .25 pF < 10 pF D = ± .50 pF < 10 pF F = ± 1% G = ± 2% J = ± 5% K = ± 10% M = ± 20%	M = Palladium/Silver N = Silver-Nickel-Gold U = Base Metalization, Nickel-Solder Coated (Tin/Lead Alloy with a minimum of 3% Lead) Z = Base Metalization, Nickel-Solder Plated (Tin/Lead Alloy with a minimum of 3% Lead)	CDR13 Only M = 1.0% P = 0.1% R = 0.01% S = 0.001% CDR14 Only

DIMENSIONS — CDR13 AND CDR14 CAPACITORS

Style Per MIL-C-55681	Length (L) Inches (mm)	Width (W) Inches (mm)	Thickness (T) Min Inches (mm)	Thickness (T) Max Inches (mm)	Metalization Band (M.B.) Inches (mm)
CDR13	0.110 ± 0.020 (2.794 ± 0.508)	0.110 ± 0.020 (2.794 ± 0.508)	0.030 (0.762)	0.102 (2.591)	0.015 ± 0.010 (0.381 ± 0.254)
CDR14	0.110 ± 0.020 + 0.035 (2.794 ± 0.508 + 0.889)	0.110 ± 0.020 (2.794 ± 0.508)	0.030 (0.762)	0.102 (2.591)	0.015 ± 0.010 (0.381 ± 0.254)

PRESIDIO SCREENING LEVELS

INDUSTRIAL • HR • CR • SR#M123 • S311P829 • HR#N2 • CDR • 06019/022

SCREENING LEVELS See Descriptions on Website		Industrial Commercial	Voltage Cond. Per Group A of MIL-PRF-55681	DPA & Voltage Cond. Per Group A of MIL-PRF-55681	Group A & B Per MIL-PRF-123	NASA DWG S311-P-829 TOR Compliant	NASA EEE-INST-002 Level 2	MIL-PRF-55681 CDR TYPE Capacitors	06019 06022		
PREFIX:		(Blank)	HR	CR	SR	SR	HR	CDR11/12/13/14	SR		
SCREENING LEVEL CODES:		(Blank)	(Blank)	(Blank)	#M123	G311P829	#N2	(See Pg. 16 & 17)	(Blank)		
BASIC TESTING	Capacitance		100%	100%	100%	100%	100%	100%	100%		
	Dissipation Factor		100%	100%	100%	100%	100%	100%	100%		
	Dielectric Withstanding Voltage (DWV)		100%	100%	100%	100%	100%	100%	100%		
	Insulation Resistance (IR at 25°C)		100%	100%	100%	100%	100%	100%	100%		
	Insulation Resistance (IR at 125°C)		NO	NO	NO	100%	100%	NO	SAMPLE Only	100%	
	Solderability or Wirebonding Test		YES	YES	YES	YES	YES	YES	YES	YES	
ENVIRONMENTAL TESTING AND RELIABILITY SCREENING	Thermal Shock (20 Cycles)		GROUP A	NO	NO	NO	YES	YES	YES 5 Cycles	Periodic Testing (5 cycles)	YES 20 Cycles
	Voltage Conditioning (100%)			NO	8 Hrs. Min.	100 Hrs.	168 Hrs. Min. with 0.1% or 1 pc. in the last 48 Hrs.	168 Hrs. Min. with 0.1% or 1 pc. in the last 48 Hrs.	96 Hrs.	100 Hrs.	168 Hrs. Min. with 0.1% or 1 pc. in the last 48 hours
	Percent Defective Allowed (PDA)			NO	8%	8%	5%	5%	10%	8%	3%
	Destructive Physical Analysis (DPA)			NO	NO	YES	YES	YES	YES	NO	YES
	Voltage Temperature Limit			NO	NO	NO	12 pcs. (when applicable)	NPO Only	6 pcs. (when applicable)	Periodic Testing	12 pcs.
	Visual Inspection			Samples	Samples	Samples	100%	100%	100%	Samples	100%
	Mechanical Inspection (Dimensions)			YES	YES	YES	YES	YES	YES	YES	YES
	Thermal Shock (100 Cycles)		GROUP B	NO	NO	NO	YES	YES	NO	Periodic Testing (5 cycles)	100 cycles
	Life-Test			NO	NO	NO	Rejects allowed for 1000 Hrs 0/25, 1/80, 2/125 pcs.	1000 Hrs., 45 or 125 pcs. 0 rejects allowed	1000 Hrs., 22 pcs. 1 reject allowed	Periodic Testing (5 cycles)	Rejects allowed for 1000 Hrs, 0/25, 1/80, 2/125 pcs.
	Ultrasonic Examination			NO	NO	NO	Code A = 100% Code B = None	100%	NO	NO	100%
	Humidity Steady State Low Voltage			NO	NO	NO	YES	YES	YES	NO (only for qualification once a year)	YES
	Moisture Resistance			NO	NO	NO	Optional for Size 0805 and larger	YES - Size 0805 / 0612 and larger	YES for Size 0805 & larger	NO (only for qualifica- tion once a year)	YES
	Terminal Strength		GROUP C	NO	NO	NO	OPTIONAL	OPTIONAL 0805 and larger	NO	NO	Periodic Testing
	Solderability			NO	NO	NO	OPTIONAL	YES	YES	YES	YES
	Resistance to Soldering Heat			NO	NO	NO	OPTIONAL	OPTIONAL	YES	NO	Periodic Testing
	Equivalent Series Resonance (ESR) In Accordance with MIL-PRF-55681			N/A	N/A	N/A	N/A	N/A	N/A	YES	YES 6 pcs.
	Series Resonance In Accordance with MIL-PRF-55681			N/A	N/A	N/A	N/A	N/A	N/A	YES Periodic Testing	YES 6 pcs.
	RECOMMENDED FOR SPACE FLIGHTS			NO	NO	NO	YES	YES	YES	YES for S-Level	YES

Contact Presidio for more information about our screening options.
See S311P829 Specification linked [here](#).

Presidio's UP capacitors can be upscreened
to SPACE LEVEL testing. Consult the factory
for details. Some voltage derating may apply.

PART NUMBER EXAMPLE (How to Order)

SR	1010	NPO	101	J	6	T	1	C	(—)	#M123	A
Prefix *	Size	Dielectric	Capacitance	Capacitance Tolerance	Voltage	Termination	Packaging	RoHS Compliant	Design-In Code (See end of catalog)	Screening Level (See Above)	Ultrasonic A = 100% B = None

A WORD TO DESIGN ENGINEERS

About Presidio “Design In” Codes

After the design work is done, outsourcing manufacturing on a global basis is a management option. At Presidio Components, we are striving for complete customer satisfaction which includes “after” service for all of our products.

We added a “Design In” locator code for quick traceability, if needed. Please select your location from the list below and add the appropriate code at the end of the part number.

If you need assistance give us a call at **+1-858-578-9390** or email us at **info@presidiocomponents.com**.

UNITED STATES

OUTSIDE THE UNITED STATES

USA	Code	USA	Code	Americas	Code	Europe	Code
Alabama	G	Nebraska	P	Canada	R	Austria	3
Alaska	P	Nevada, North	B	Mexico	R	Belgium	1
Arizona	D	Nevada, South	C	Caribbean	R	Denmark	5
Arkansas	P	New Hampshire	L	Central America	R	Finland	5
California, North	B	New Jersey	J	South America	R	France	2
California, South	C	New Mexico	D			Germany	3
Colorado	E	New York, Metro	J	Pacific Rim		Ireland	6
Connecticut	L	New York, Upstate	K	Australia	S	Italy	4
Delaware	I	North Carolina	G	China	T	Luxembourg	1
District of Columbia	H	North Dakota	O	Japan	U	Netherlands	1
Florida	G	Ohio	M	Korea, South	V	Norway	5
Georgia	G	Oklahoma	P	Malaysia	W	Sweden	5
Hawaii	P	Oregon	A	Singapore	X	Switzerland	3
Idaho	A	Pennsylvania	I	Other Pacific Rim Countries	Y	United Kingdom	6
Illinois	N	Rhode Island	L			Other European Countries	7
Indiana	M	South Carolina	G				
Iowa	O	South Dakota	O			Other	
Kansas	P	Tennessee	G			India	Z
Kentucky	M	Texas	F			Israel	8
Louisiana	P	Utah	E			Rest of World	9
Maine	L	Vermont	L				
Maryland	H	Virginia	H				
Massachusetts	L	Washington	A				
Michigan	N	West Virginia	P				
Minnesota	O	Wisconsin, East	N				
Mississippi	G	Wisconsin, West	O				
Missouri	N	Wyoming	E				
Montana	A						

PART NUMBER EXAMPLE:
0505NPO101FAN1NA
PART DESCRIPTION: Ceramic Capacitor,
0505, NPO, 100pF ± 1%,
150 VDC, Plated SnPb, Tape and Reel,
Non RoHS, Design-In Code A for
Washington State.



PRESIDIO COMPONENTS, INC.

7169 Construction Court, San Diego, CA 92121 • Tel: +1-858-578-9390 • Fax: +1-858-578-6225
 www.presidiocomponents.com • info@presidiocomponents.com



PRESIDIO PRODUCT LINES

100% U.S. Made, 100% U.S. Owned

PRESIDIO COMPONENTS, INC.

maintains more than 100 million commercial and military parts in inventory. We also offer multitudes of intermediate sizes, voltages, tolerances, termination finishes, lead-frame styles and more.

Some of our specialties include ceramic capacitors for high temperatures, cryogenic temperatures, pulse discharge applications as well as high Q dielectric, negative and positive temperature characteristic and piezoelectric ceramic formulations.

Backed with numerous patents and hundred of years of combined experience, Presidio is well suited to offer a solution to your demanding applications. Please contact our engineering team to discuss your specific needs.

100% U.S. Made, 100% U.S. Owned

STACKS WITH INTERDIGITATED LEADS

'S' LEAD STACKS

OPTIMIZED STACKED ASSEMBLY

ENCAPSULATED STACKS

HIGH FREQUENCY
HIGH POWER STACKS

HIGH Q NPO
RF CAPACITORS

SMALLEST & BEST IN CLASS
WIREBONDABLE
SINGLE LAYER

SMD BROADBAND DC BLOCK
BB SERIES

WIREBONDABLE
BYPASS (VL Series)
BROADBAND BYPASS (VB Series)

MAIN PRODUCT CATALOGS

Click Catalog Cover or Scan QR Code to Visit Product Page on Website



SURFACE MOUNT
CERAMIC CHIP
CAPACITORS



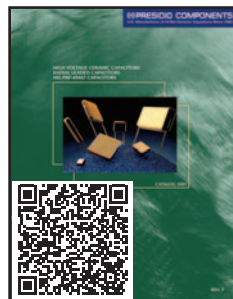
HIGH RELIABILITY
EXTENDED RANGE
CHIPS FOR SPACE



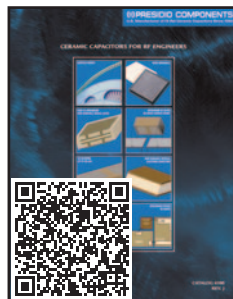
CERAMIC STACKED
CAPACITORS
FOR SMPS



HIGH TEMPERATURE
CERAMIC
CAPACITORS



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& MIL-PRF-49467
CERAMIC CAPACITORS



CERAMIC CAPACITORS
FOR RF ENGINEERS



HIGH Q NPO
CERAMIC CAPACITORS
FOR RF & MICROWAVE



PULSE DISCHARGE
CERAMIC CAPACITORS

Information in
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CATALOG 7100 REV. K
SEPTEMBER 2024

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