

NPO PART NUMBERS RF, MICROWAVE & POWER

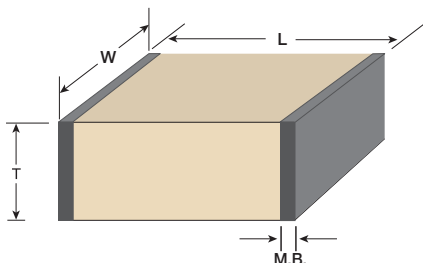
Specifications

ELECTRICAL SPECIFICATIONS	NPO Dielectric Code: NPO	Testing Method MIL-STD-55681
Temperature Coefficient of Capacitance, 0 Volt	0 ± 30 ppm/°C	Para 3.23
Typical Q (1 MHz)	10,000	
Rated Operating Temperature Range	-55° to +125° 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

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

Marking available upon request (extra cost)

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 and Reel)	Non RoHS Compliant	Design-In Code (See Page 19)



PRESIDIO COMPONENTS, INC.

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A WORD TO THE DESIGN ENGINEER

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 **(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			Other	
Iowa	O	South Dakota	O			India	Z
Kansas	P	Tennessee	G			Israel	8
Kentucky	M	Texas	F			Rest of World	9
Louisiana	P	Utah	E				
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.**