

HIGH Q NPO PART NUMBERS RF, MICROWAVE & POWER

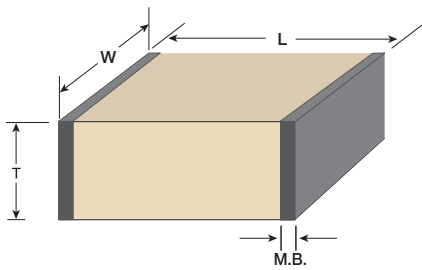
Specifications

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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