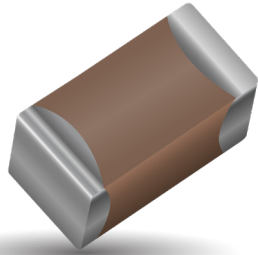


# RF/Microwave Capacitors

## RF/Microwave COG (NP0) Capacitors

### Ultra Low ESR "CU" Series, COG (NP0) Capacitors (RoHS)

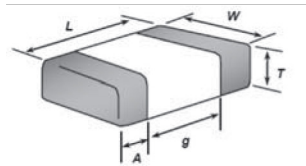


#### GENERAL INFORMATION

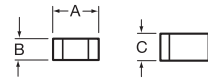
"CU" Series capacitors are COG (NP0) chip capacitors specially designed for "Ultra" low ESR for applications in the communications market. Sizes available are EIA chip sizes 01005 and 0201.



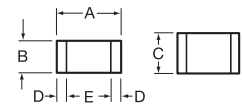
#### DIMENSIONS:



#### 01005



#### 0201



#### ELECTRICAL CHARACTERISTICS

##### Capacitance Value Range:

Size 01005 0.2 to 24pF

Size 0201 0.2 to 24pF

##### Temperature Coefficient of Capacitance (TC):

0±30 ppm/°C (-55° to +125°C)

##### Insulation Resistance (IR):

10<sup>12</sup> Ω min. @ 25°C and rated WVDC

10<sup>11</sup> Ω min. @ 125°C and rated WVDC

##### Working Voltage (WVDC):

Size Working Voltage

01005 - 16V, 25V (0.2pF-10pF), 16V (10pF-24pF)

0201 - 25 WVDC

Size	mm (inches)				
	L (Length)	W (Width)	T (Max. Thickness)	g (min.)	A (Termination Min./Max.)
0402 (01005)	0.40±0.02 (0.016±0.0008)	0.20±0.02 (0.008±0.0008)	0.22 (0.009)	0.13 (0.005)	0.70/0.14 (0.003/0.006)
0603 (0201)	0.60±0.03 (0.024±0.001)	0.30±0.03 (0.012±0.001)	0.33 (0.013)	0.15 (0.006)	0.10/0.20 (0.004/0.008)

#### HOW TO ORDER

**CU01**  
Case Size  
CU10 = 01005  
CU01 = 0201

**3**  
Voltage Code  
3 = 25V  
Y = 16V

**1**  
Dielectric  
1 = 0±30ppm  
COG (NP0)

**100**  
Capacitance  
EIA Capacitance Code in pF.

First two digits = significant figures or "R" for decimal place.  
Third digit = number of zeros or after "R" significant figures.

**J**  
Capacitance Tolerance Code  
A = ±0.05pF  
B = ±0.1pF  
C = ±0.25pF  
D = ±0.5pF  
G = ±2%  
J = ±5%

**A**  
Failure Rate Code  
A = Not Applicable

**T**  
Termination  
T = Plated Ni and Sn

**2**  
Packaging Code  
2 = 7" Reel  
4 = 13" Reel  
U = 7" Reel 4mm TR (01005)

**A**  
Special  
A = Standard



# RF/Microwave Capacitors

## RF/Microwave C0G (NP0) Capacitors

### Ultra Low ESR "CU" Series, C0G (NP0) Capacitors (RoHS)

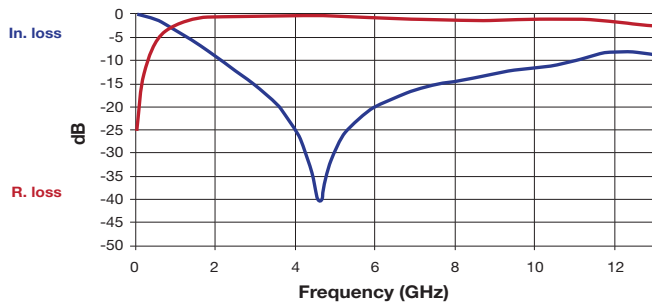


#### CAPACITANCE RANGE

Cap (pF)	Available Tolerance	
	01005	0201
0.5	B,C,D	B,C,D
0.75	↓	↓
1.0		
1.2		
1.5		
1.8		
2.2		
2.7		
3.3		
3.9		
4.7		
5.6	B,C,D	B,C,D
6.2	C,D	C,D
6.8	D	D
8.2	D	D
10.0	G,J,K	J,K
12.0	↓	↓
15.0		
18.0		
22.0		
24.0		

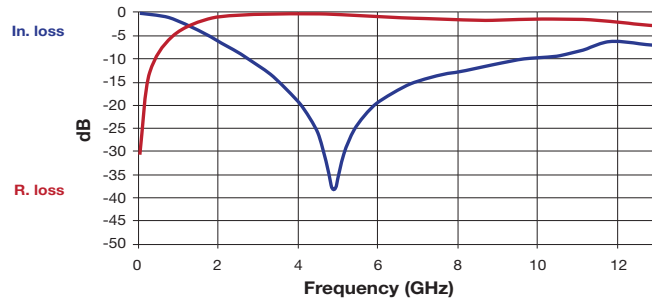
#### ULTRA LOW ESR, "CU" SERIES0

01005 6.2pF



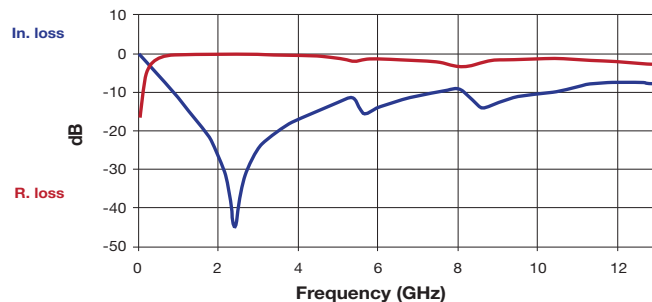
	F (GHz)	IL	R. loss
F1	0.31	-0.40	-9.68
F2	1.28	-5.03	-1.44
F3	2.408	-11.58	-0.27
F4	4.635	-40.55	-0.39
F5	4.897	-31.82	-0.47

0201 4.7pF



	F (GHz)	IL	R. loss
F1	0.31	-0.13	-12.90
F2	1.28	-2.89	-2.84
F3	2.408	-8.09	-0.60
F4	4.635	-29.45	-0.37
F5	4.897	-38.55	-0.45

0201 22pF



	F (GHz)	IL	R. loss
F1	0.31	-2.90	-2.85
F2	1.28	-15.26	-0.10
F3	2.408	-45.65	-0.10
F4	4.635	-14.90	-0.87
F5	4.897	-12.89	-1.08