RF Inductors Ceramic

Applications & Product Range

High frequency multi-layer chip inductors feature a monolithic body made of low loss ceramic and high conductivity metal electrodes to achieve optimal high frequency performance.

These RF chip inductors are compact in size and feature lead-free tin plated nickel barrier terminations and tape and reel packaging which makes them ideal for small size/high volume wireless applications.

Applications:

- CELL/PCS Modules
- Wireless LAN
- Broadband Components
- RFID
- RF Transceivers
- RoHS Compliant (Standard, “V” Code)
- Sn/Pb Terminations Optional (“T” Code)

Product Range Summary

EIA SIZE (mm)	RANGE	Q FACTOR (Min.)	SRF (Typ.)	TEMPERATURE
0201 (0603)	0.6 - 39 nH	4 (100 MHz)	>21 GHz (1.0 nH)	-55°C to +100°C
0402 (1005)	1.0 - 120 nH	8 (100 MHz)	>21 GHz (1.0 nH)	-55°C to +100°C
0603 (1608)	1.0 - 220 nH	12 (100 MHz)	>23 GHz (1.0 nH)	-55°C to +100°C

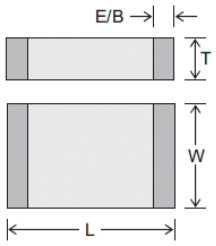
RF Inductors Ceramic

Mechanical Characteristics & How to Order

Types of Markings

Mechanical Characteristics

Size	0201 (0603)		0402 (1005)		0603 (1608)		Characteristics
	Inches	mm	Inches	mm	Inches	mm	
Length	.024 ± .001"	(0.6 ± .0.03)	.039 ± .004"	(1.00 ± .10)	.063 ± .006"	(1.60 ± .15)	
Width	.012 ± .001"	(0.3 ± .0.03)	.020 ± .004"	(0.50 ± .10)	.031 ± .008"	(0.80 ± .15)	
Thickness	.012 ± .001"	(0.3 ± .0.03)	.020 ± .004"	(0.50 ± .10)	.031 ± .008"	(0.80 ± .15)	
End Band	.006 ± .002"	(0.15 ± 0.05)	.009 ± .004"	(0.23 ± .10)	.012 ± .004"	(0.30 ± .20)	



HOW TO ORDER

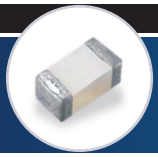
LR	C	0402	C	C	1N0	GV	001	B
Subfamily	Ceramic	Size	Type	Tolerance	Value	Termination	Special Code	Packaging
LR = Ceramic Inductor	**C** = Ceramic	0201 0402 0603	**B** = Half-marked (all 0201)	**C** = ± 0.2 nH ≤ 1.0 nH **S** = ± 0.3 nH 1.0 to 5.6 nH	See Table	**GV** = Ni/Sn (RoHS) **NT** = Ni/SnPb	**001** = Default Catalog Item	**B** = Bulk (all sizes) **T** = 7" Reel Paper Tape **R** = 13" Reel Paper Tape **W** = Waffle Pack (0603)
			C = 0402 & 0603 (see "Marking")	**J** = ± 5% 6.8 nH and above **K** = ± 10% 3.3 nH and above				

Example: **LRC0402CC1N0GV001B** is Ceramic Inductor, 0402, 1.0nH±0.2nH, 300mA, Ni/Sn (RoHS), Orientation Mark Full Marking, Bulk

RF Inductors Ceramic

Inductance Range / Electrical Characteristics

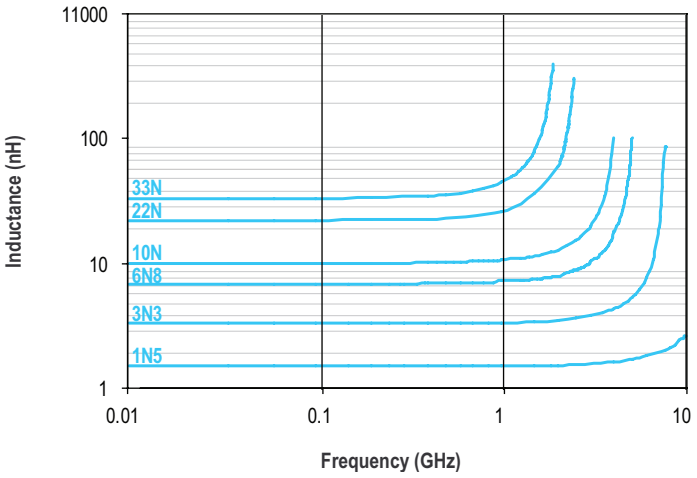
Inductor Value / EIA Size			0201	0402	0603
Inductance		Tolerance			
nH	Code				
0.6	0N6	C, S	300 mA		
0.7	0N7		300 mA		
0.8	0N8		300 mA		
0.9	0N9		300 mA		
1.0	1N0		300 mA	300 mA	300 mA (S only)
1.2	1N2		300 mA	300 mA (S only)	300 mA (S only)
1.3	1N3		300 mA		
1.5	1N5		300 mA	300 mA (S only)	300 mA (S only)
1.8	1N8		300 mA	300 mA (S only)	300 mA (S only)
1.9	1N9		300 mA	300 mA (S only)	
2.0	2N0		300 mA	300 mA (S only)	
2.2	2N2		300 mA	300 mA (S only)	300 mA (S only)
2.3	2N3		300 mA		
2.4	2N4		300 mA	300 mA (S only)	
2.5	2N5		300 mA		
2.7	2N7		300 mA	300 mA (S only)	300 mA (S only)
3.0	3N0		300 mA	300 mA (S only)	
3.3	3N3	K, S	300 mA	300 mA	300 mA
3.6	3N6		300 mA	300 mA	
3.7	3N7		300 mA		
3.9	3N9		300 mA	300 mA	300 mA
4.3	4N3			300 mA	
4.7	4N7		300 mA	300 mA	300 mA
5.1	5N1		300 mA	300 mA	
5.6	5N6		300 mA	300 mA	300 mA
6.2	6N2			300 mA	
6.8	6N8	J, K	250 mA	250 mA	300 mA
7.5	7N5			250 mA	
8.2	8N2		250 mA	250 mA	300 mA
10	10N			250 mA	300 mA
12	12N		250 mA	250 mA	300 mA
13	13N		250 mA	250 mA	
15	15N		250 mA	250 mA	300 mA
18	18N		200 mA	200 mA	300 mA
22	22N		200 mA	200 mA	300 mA
23	23N			200 mA	
27	27N		200 mA	200 mA	300 mA
33	33N		200 mA	200 mA	300 mA
39	39N		200 mA	150 mA	300 mA
43	43N			150 mA	
47	47N			150 mA	300 mA
56	56N			150 mA	300 mA
68	68N			100 mA	300 mA
82	82N			100 mA	300 mA
100	R10			100 mA	300 mA
120	R12			100 mA	300 mA
150	R15				300 mA
180	R18				300 mA
220	R22				300 mA
270	R27				
330	R33				
390	R39				
420	R42				
560	R56				
680	R68				



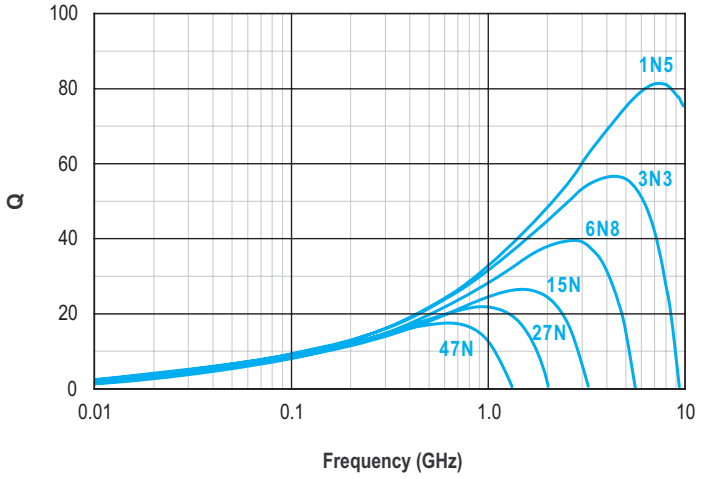
RF Inductors Ceramic

RF Characteristics (Typical)

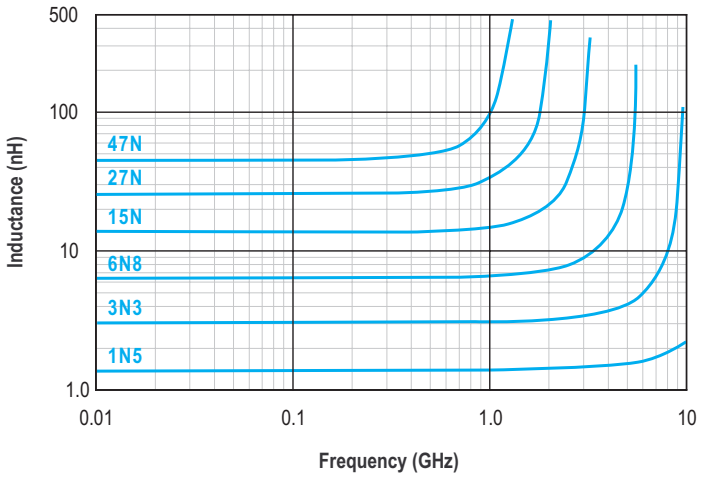
INDUCTANCE VS FREQUENCY: **SIZE 0201**



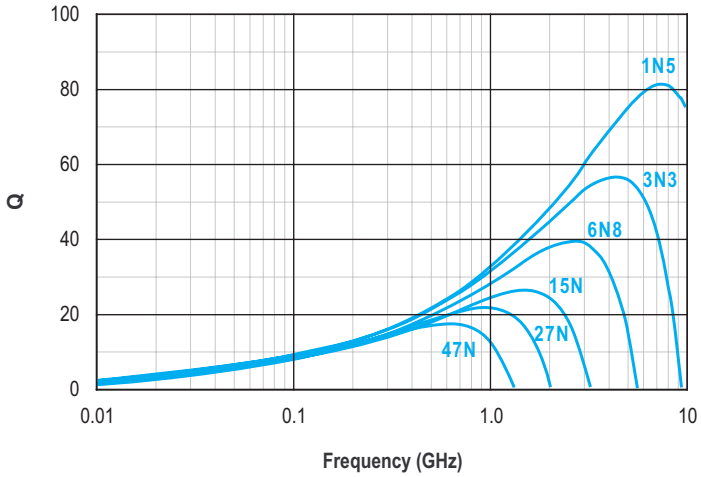
Q VS FREQUENCY: **SIZE 0201**



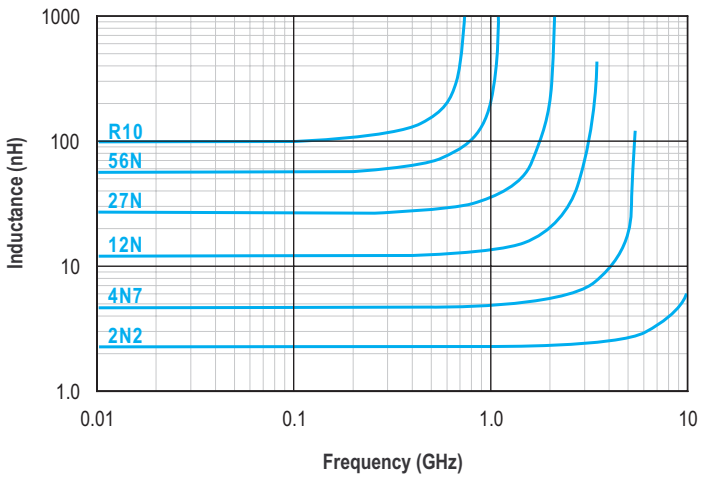
INDUCTANCE VS FREQUENCY: **SIZE 0402**



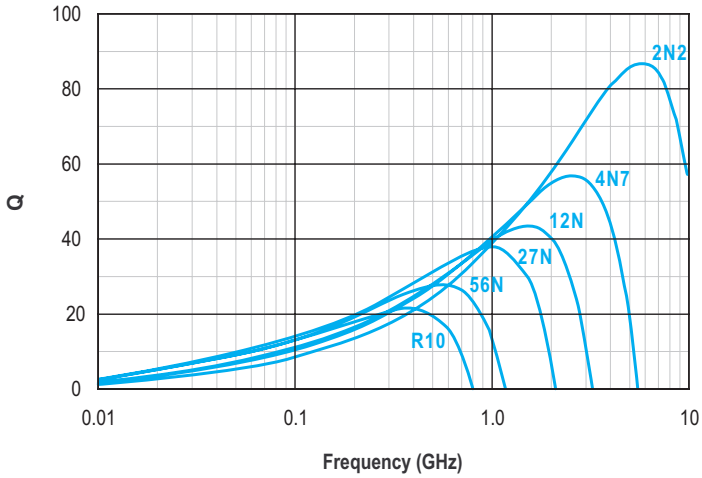
Q VS FREQUENCY: **SIZE 0402**



INDUCTANCE VS FREQUENCY: **SIZE 0603**



Q VS FREQUENCY: **SIZE 0603**



RESOURCE ▶ https://www.johansontechnology.com/products/ceramic-rf-inductors/ceramic-inductors/