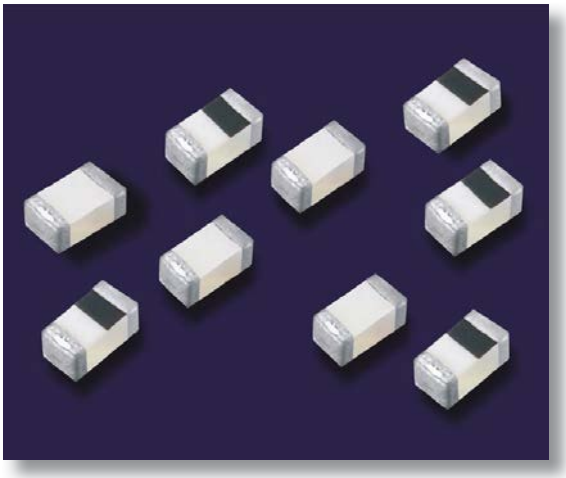
RF Ceramic Chip Inductors



Polarity Half-Marked Inductors (0201 only)

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 & Features

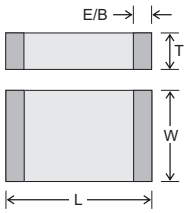
- CELL/PCS Modules
- Broadband Components
- RF Tranceivers
- RoHS Compliant (Standard, "V" Code)
- Sn/Pb Terminations Optional ("T" Code)
- Wireless LAN
- RFID

Product Range Summary

EIA SIZE (mm)	SIZE CODE	L RANGE	Q FACTOR (Min.)	SRF (Typ.)	TEMPERATURE
0201 (0603)	L-05	0.6 - 39 nH	4 (100 MHz)	>21 GHz (1.0 nH)	-55°C to +100°C
0402 (1005)	L-07	1.0 - 120 nH	8 (100 MHz)	>21 GHz (1.0 nH)	-55°C to +100°C
0603 (1608)	L-14	1.0 - 220 nH	12 (100 MHz)	>23 GHz (1.0 nH)	-55°C to +100°C

Mechanical Characteristics

	0201 (0603)		0402 (1005)		0603 (1608)	
	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 ±.006"	(0.80 ±.15)
Thickness	.012 ±.001"	(0.3 ±0.03)	.020 ±.004"	(0.50 ±.10)	.031 ±.006"	(0.80 ±.15)
End Band	.006 ±.002"	(0.15 ±0.05)	.009 ±.004"	(0.23 ±.10)	.012 ±.008"	(0.30 ±.20)



How to Order

L-	07	C	10N	J	V	6	T

DEVICE
Inductor

SIZE
05 = 0201
07 = 0402
14 = 0603

TYPE
B = Polarity Half-Marked (all 0201)
C = 0402 and 0603 (see "Marking")

VALUE
See Table

TOLERANCE

C = ± 0.2 nH	≤ 1.0 nH
S = ± 0.3 nH	1.0 to 5.6 nH
J = ± 5%	6.8 nH and above
K = ± 10%	3.3 nH and above

TERMINATION
V = Ni/Sn
T = Ni / SnPb

MARKING
4 = No Marking (all 0603)
6 = Orientation Mark (all 0201 and 0402*)

PACKAGING
Tape and Reel

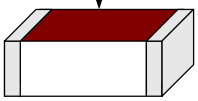
Size	Code	Tape	Reel	Qty
0201	T	Paper	7"	15,000
0402	T	Paper	7"	10,000
0603	T	Paper	7"	4,000

Bulk (Loose Pcs.)

Size	Code
All	S

Part number written: L-07C10NJV6T

Orientation Full Marking (all 0402)



*Please note that all 0402 inductors (L-07C) have orientation full marking only.

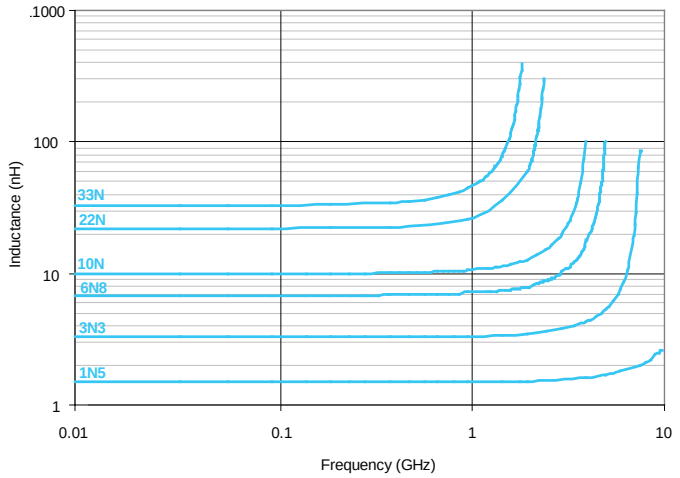
RF Chip Inductor Selection Chart

Inductor Value / EIA Size			0201 (L-05)	0402 (L-07)	0603 (L-14)
Inductance nH	Code	Tolerance			
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	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				

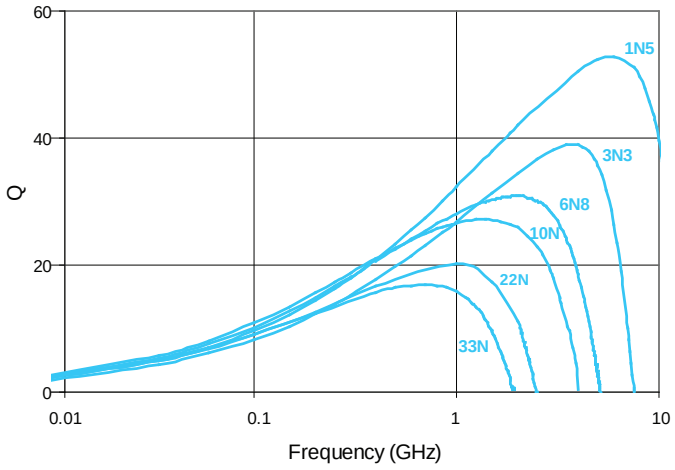
Consult factory for Non-Standard values. C tolerance are non-standard terms
See web page for Chip Inductor Product Detail Summary by part number

RF Characteristics Characteristics (Typical)

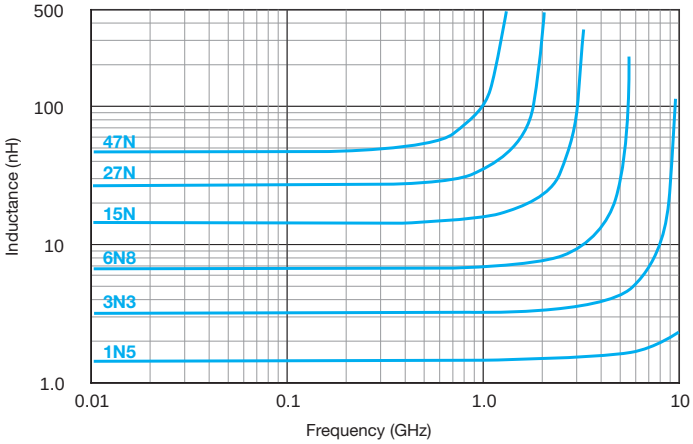
INDUCTANCE VS FREQUENCY: SIZE 0201



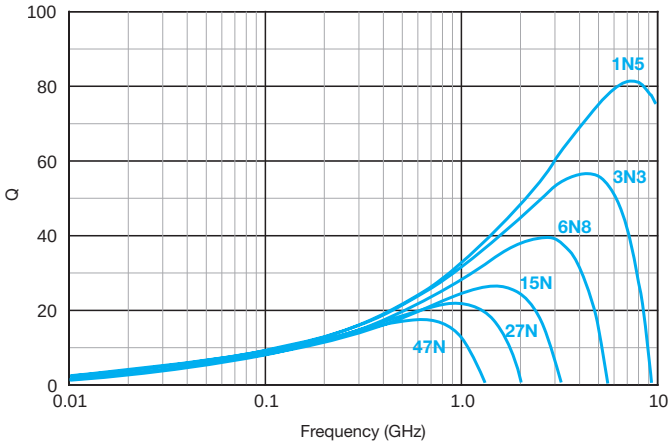
Q VS FREQUENCY: SIZE 0201



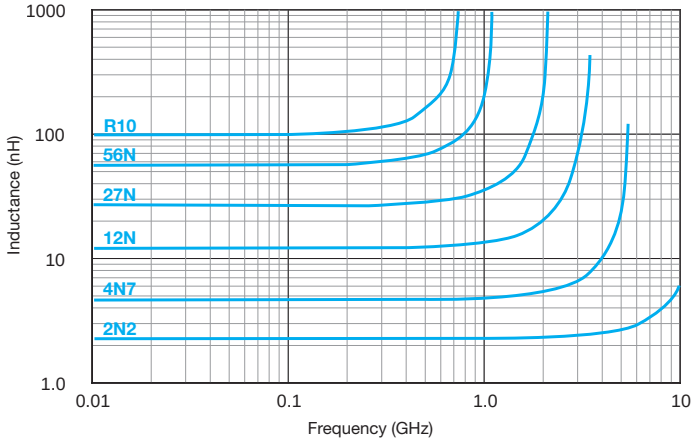
INDUCTANCE VS FREQUENCY: SIZE 0402



Q VS FREQUENCY: SIZE 0402



INDUCTANCE VS FREQUENCY: SIZE 0603



Q VS FREQUENCY: SIZE 0603