



# Frontier Electronics Corp.

667 E. COCHRAN STREET, SIMI VALLEY, CA 93065

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## SMD Wire Wound Ceramic Chip Inductors—0402C series

### A. Electrical specifications:

Part No.	L (nH)	Tol.	Q Typ. (Min)	900 MHz		1.7 GHz		SRF (min) (GHz)	DCR (Ω) (Max)	I rms. (mA)
				L	Q	L	Q			
0402C-1N0_	1.0	K	16	1.02	77	1.02	69	12.7	0.045	1360
0402C-1N9_	1.9	K, J	16	1.72	68	1.74	82	11.3	0.070	1040
0402C-2N0_	2.0	K, J	16	1.93	54	1.93	75	11.1	0.070	1040
0402C-2N2_	2.2	K, J	19	2.19	59	2.23	100	10.8	0.070	960
0402C-2N4_	2.4	K, J	15	2.24	51	2.27	68	10.5	0.068	790
0402C-2N7_	2.7	K, J	16	2.58	42	2.60	61	10.4	0.120	640
0402C-3N3_	3.3	K, J, G	19	3.10	65	3.12	87	7.00	0.066	840
0402C-3N6_	3.6	K, J, G	19	3.56	45	3.62	71	6.80	0.066	840
0402C-3N9_	3.9	K, J, G	19	3.89	50	4.00	75	6.00	0.066	840
0402C-4N3_	4.3	K, J, G	18	4.19	47	4.30	71	6.00	0.091	700
0402C-4N7_	4.7	K, J, G	15	4.55	48	4.68	68	4.77	0.130	640
0402C-5N1_	5.1	K, J, G	20	5.15	56	5.25	82	4.80	0.083	800
0402C-5N6_	5.6	K, J, G	20	5.16	54	5.28	81	4.80	0.083	760
0402C-6N2_	6.2	K, J, G	20	6.16	52	6.37	76	4.80	0.083	760
0402C-6N8_	6.8	K, J, G	20	6.56	63	6.93	78	4.80	0.083	680
0402C-7N5_	7.5	K, J, G	22	7.91	60	8.22	88	4.80	0.100	680
0402C-8N2_	8.2	K, J, G	22	8.50	57	8.85	84	4.40	0.100	680
0402C-8N7_	8.7	K, J, G	18	8.78	54	9.21	73	4.10	0.200	480
0402C-9N0_	9.0	K, J, G	22	9.07	62	9.53	78	4.16	0.100	680
0402C-9N5_	9.5	K, J, G	18	9.42	54	9.98	69	4.00	0.200	480
0402C-10N_	10	K, J, G	21	9.8	50	10.10	67	3.90	0.200	480
0402C-11N_	11	K, J, G	24	10.7	52	11.15	78	3.68	0.120	640
0402C-12N_	12	K, J, G	24	11.9	53	12.68	71	3.60	0.120	640
0402C-13N_	13	K, J, G	24	13.4	51	14.63	57	3.45	0.210	440
0402C-15N_	15	K, J, G	24	14.6	55	15.50	77	3.28	0.170	560
0402C-16N_	16	K, J, G	24	16.6	46	18.86	47	3.10	0.220	560
0402C-18N_	18	K, J, G	24	18.3	57	20.28	62	3.10	0.230	420
0402C-19N_	19	K, J, G	24	19.1	50	21.11	67	3.04	0.200	480
0402C-20N_	20	K, J, G	25	20.7	52	23.66	53	3.00	0.250	420
0402C-22N_	22	K, J, G	25	23.2	53	26.75	53	2.80	0.300	400
0402C-23N_	23	K, J, G	22	23.8	49	26.85	64	2.72	0.300	400
0402C-24N_	24	K, J, G	25	25.1	51	29.50	50	2.70	0.300	400
0402C-27N_	27	K, J, G	24	28.7	49	33.50	63	2.48	0.300	400
0402C-30N_	30	K, J, G	25	31.1	46	38.50	39	2.35	0.300	400
0402C-33N_	33	K, J, G	24	34.9	31	41.74	32	2.35	0.300	400
0402C-36N_	36	K, J, G	24	39.5	44	48.40	53	2.32	0.440	320
0402C-39N_	39	K, J, G	25	41.7	47	50.23	45	2.10	0.550	200
0402C-40N_	40	K, J, G	24	39.0	44	47.41	33	2.24	0.440	320
0402C-43N_	43	K, J, G	25	45.8	46	61.55	34	2.03	0.810	100
0402C-47N_	47	K, J, G	20	50.0	38	--	--	2.10	0.830	150
0402C-51N_	51	K, J, G	25	56.0	40	--	--	1.75	0.820	100
0402C-56N_	56	K, J, G	22	62.8	42	--	--	1.76	0.970	100
0402C-68N_	68	K, J, G	22	78.2	36	--	--	1.62	1.120	100

Note: 1. Inductance measured at 250 MHz

2. 0402C has no color code.



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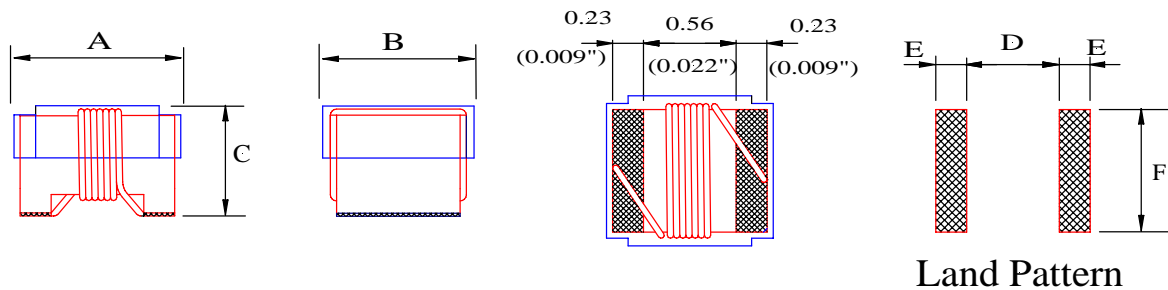
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## SMD Wire Wound Ceramic Chip Inductors—0402C series

### B. Dimensions: (Unit: mm)

SERIES	A (Max.)	B (Max.)	C (Max.)	D (Max.)	E	F
0402C	1.27	0.76	0.66	0.46	0.50	0.66

### C. Mechanical Drawing:



### D. General information:

1. P/N: 0402C-XXX\_: 0402C: Size, "XXX": Inductance, "\_": Tolerance.
2. Tolerance: K:  $\pm 10\%$ , J:  $\pm 5\%$ , G:  $\pm 2\%$ .
3. Small and lightweight surface mounting type.
4. High Q at high frequency.
5. High self-resonance frequency.
6. For 15°C Temperature Rise at 25°C ambient.
7. Inductance & Q measured using the HP4291B.
8. SRF measured using the HP8720D or HP8753E.
9. DCR measured using the 502BC.
10. Operating temperature: -40°C TO +125°C.
11. This series has **no color code** due to the size is small.
12. Inductance and Current Range: From 1.0nH (1360mA)~68nH (100mA).
13. SRF: From 12.7GHz to 1.62GHz.
14. **RoHS** compliant.

### E. Applications:

\* Pagers. \* Mobile communication units. \* Portable telephone. \* Hybrid.

★ *Special specifications are available for customer's requirement.*



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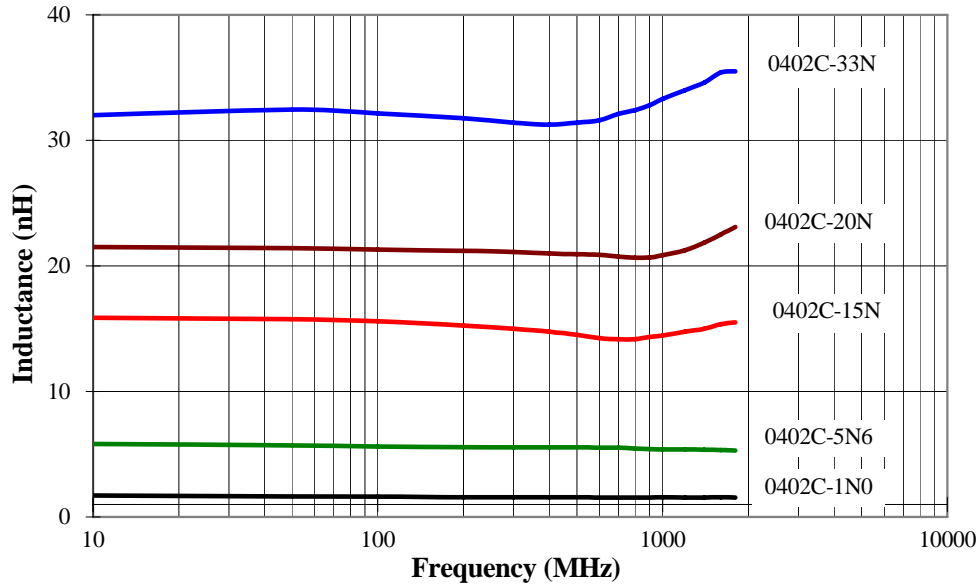
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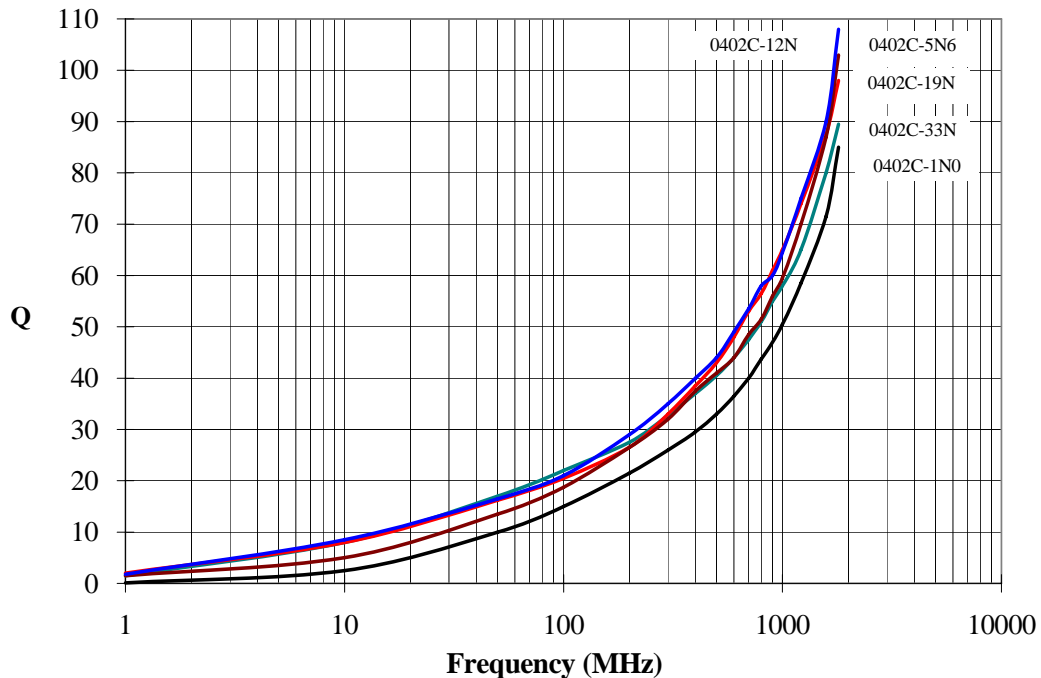
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### F. Characteristic curve:

#### 1. Inductance vs. Frequency:



#### 2. Typical Q vs. Frequency:





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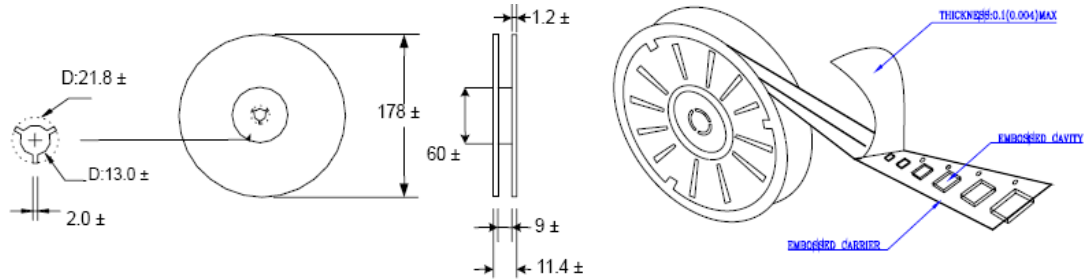
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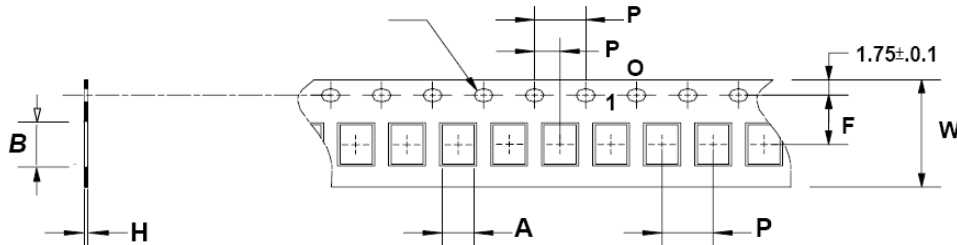
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### F. Paper Tape

#### 1. Reel Dimension:

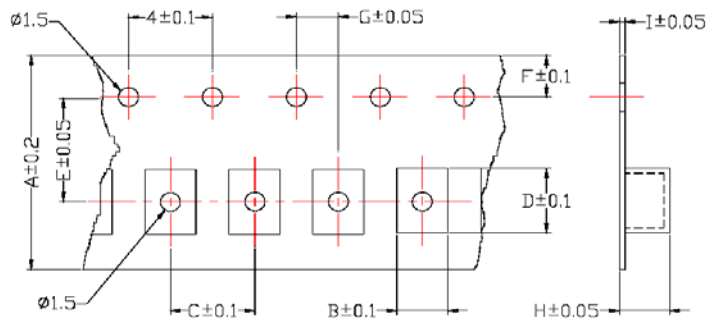


#### 2. Paper Tape Specification:



A	B	K	F	P	Po	P1	W	Quantity
0.80	1.22	0.60	3.5	2.0	4.0	2.0	8.0	4,000

#### 3. Emboss Plastic Tape Specification:



A	B	C	D	E	F	G	H	I	Quantity
8	0.71	2.0	1.16	3.5	1.75	2	0.65	0.23	4,000

#### 4. Cover Tape Strength:

The force for tearing off cover tape is 0.1~0.6(N) in the arrow direction at the following conditions:

a. Temperature : 5 ~ 35°C. b. Humidity : 45 ~ 85%. c. Atmospheric pressure : 860 ~ 1060 hpa

