



# Frontier Electronics Corp.

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## SMD Wire Wound Ceramic Chip Inductors—0603C series

### A. Electrical specifications:

Part No.	L (nH)	Percent Tolerance	Q (Min)	Test Freq. (MHz)	SRF (min) (MHz)	DCR $\Omega$ (Max)	I rms. (mA)	Color code
0603C-1N6	1.6	K, J	24	250	12500	0.030	700	Black
0603C-1N8	1.8	K, J	16	250	12500	0.045	700	Brown
0603C-2N1	2.1	K, J	20	250	5800	0.050	700	Red
0603C-2N2	2.2	K, J	20	250	5800	0.050	700	Orange
0603C-3N3	3.3	K, J	20	250	5500	0.070	700	Violet
0603C-3N6	3.6	K, J	22	250	5900	0.063	700	Red
0603C-3N9	3.9	K, J	22	250	6900	0.080	700	Orange
0603C-4N3	4.3	K, J	22	250	5900	0.063	700	Yellow
0603C-4N7	4.7	K, J	20	250	5800	0.116	700	Green
0603C-5N1	5.1	K, J	20	250	5700	0.140	700	Blue
0603C-5N6	5.6	K, J	20	250	5800	0.150	700	Gray
0603C-6N1	6.1	K, J	25	250	5800	0.110	700	White
0603C-6N8	6.8	K, J, G	27	250	5800	0.110	700	Violet
0603C-7N5	7.5	K, J, G	28	250	4800	0.106	700	Gray
0603C-8N2	8.2	K, J, G	25	250	4600	0.120	700	Black
0603C-8N4	8.4	K, J, G	28	250	4600	0.109	700	Red
0603C-8N5	8.5	K, J, G	28	250	4600	0.109	700	Red
0603C-8N7	8.7	J, G	28	250	4600	0.109	700	White
0603C-9N5	9.5	J, G	28	250	5400	0.135	700	Black
0603C-10N	10	J, G	31	250	4800	0.130	700	Brown
0603C-11N	11	J, G	33	250	4000	0.086	700	Red
0603C-12N	12	J, G	35	250	4000	0.130	700	Orange
0603C-14N	14	J, G	35	250	4000	0.170	700	Brown
0603C-15N	15	J, G	35	250	4000	0.170	700	Yellow
0603C-16N	16	J, G	34	250	3300	0.104	700	Green
0603C-18N	18	J, G	35	250	3100	0.170	700	Blue
0603C-22N	22	J, G	38	250	3000	0.190	700	Violet
0603C-24N	24	J, G	37	250	2650	0.135	700	Gray
0603C-27N	27	J, G	40	250	2800	0.220	600	White
0603C-30N	30	J, G	37	250	2250	0.144	600	Black
0603C-33N	33	J, G	40	250	2300	0.220	600	Brown
0603C-36N	36	J, G	38	250	2080	0.250	600	Red
0603C-39N	39	J, G	40	250	2200	0.250	600	Orange
0603C-43N	43	J, G	39	250	2000	0.280	600	Yellow
0603C-47N	47	J, G	38	200	2000	0.280	600	Green
0603C-56N	56	J, G	38	200	1900	0.310	600	Blue
0603C-68N	68	J, G	37	200	1700	0.340	600	Violet
0603C-72N	72	J, G	34	150	1700	0.490	400	Gray
0603C-82N	82	J, G	34	150	1700	0.540	400	White
0603C-R10	100	J, G	34	150	1400	0.580	400	Black
0603C-R11	110	J, G	32	150	1350	0.610	300	Brown
0603C-R12	120	J, G	32	150	1300	0.650	300	Red
0603C-R15	150	J, G	28	150	990	0.920	280	Orange
0603C-R18	180	J, G	25	100	990	1.250	240	Yellow
0603C-R22	220	J, G	25	100	900	1.900	200	Green
0603C-R27	270	J, G	24	100	900	2.300	170	Blue



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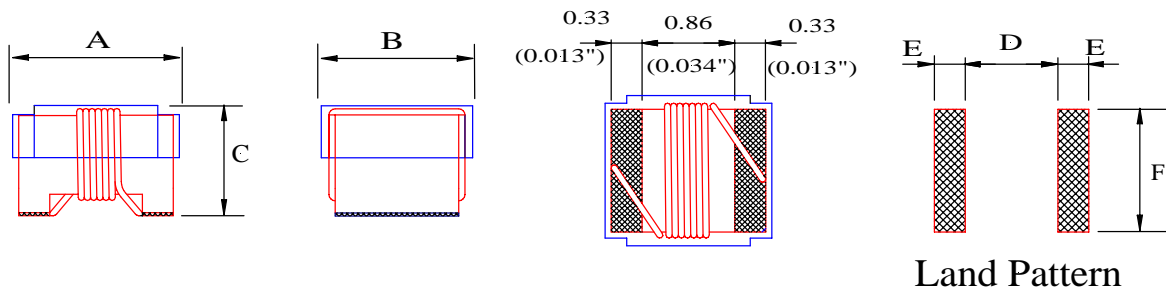
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## SMD Wire Wound Ceramic Chip Inductors—0603C series

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

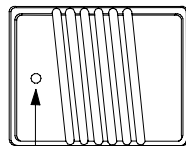
SERIES	A (Max.)	B (Max.)	C (Max.)	D (Max.)	E	F
0603C	1.80	1.12	1.02	0.64	0.64	1.02

### C. Mechanical Drawing:



### D. Color coding:

1. These parts are marked with single color dot.
2. The dot represented inductance value shows on the table.



Identifier for 0603C & 0805C series.

Top view



### E. General information:

1. Tolerance: M:  $\pm 20\%$ , K:  $\pm 10\%$ , J:  $\pm 5\%$ , G:  $\pm 2\%$ , F:  $\pm 1\%$ .
2. Small and lightweight surface mounting type.
3. High Q at high frequency.
4. High self-resonance frequency.
5. For 15°C Temperature Rise.
6. Inductance & Q measured using the HP4291B.
7. SRF measured using the HP8720D or HP8753E.
8. DCR measured using the 502BC.
9. Operating temperature: -40°C TO +125°C.
10. Inductance Range:
  - 0603C (Ceramic) Series: 1.6nH(700mA)~270nH(170mA). SRF from 12GHz to 900MHz.
11. **RoHS** compliant.

### F. Applications:

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

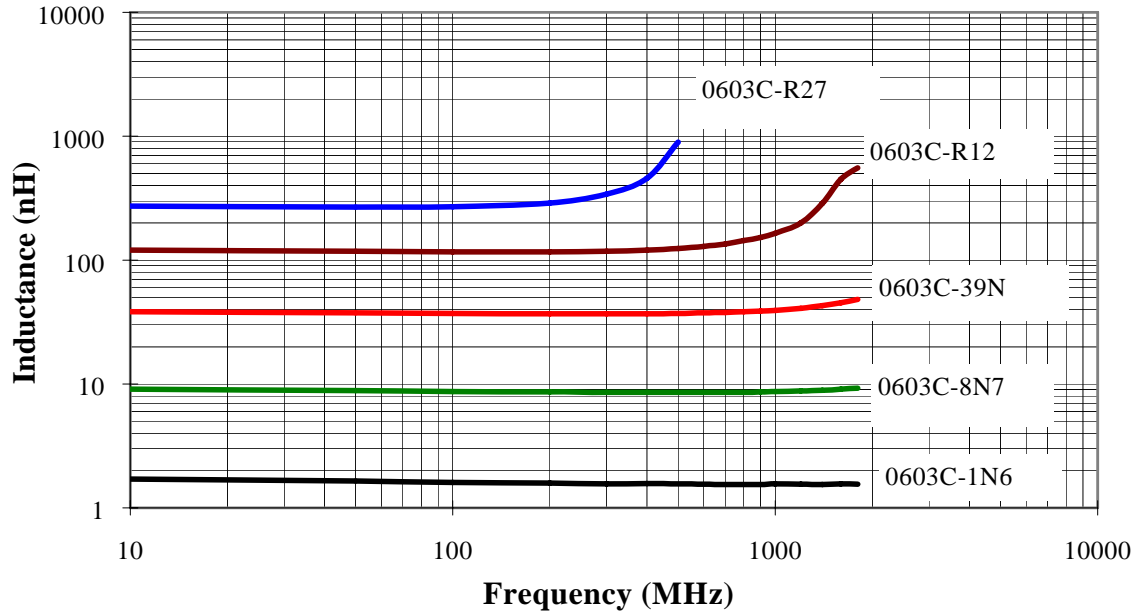
★ *Special specifications are available for customer's requirement.*



## SMD Wire Wound Ceramic Chip Inductors—0603C series

### G. Characteristic curve:

#### 1. Inductance vs. Frequency:



#### 3. Typical Q vs. Frequency:

