



# Frontier Electronics Corp.

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## Ceramic & Ferrite Wire Wound Chip Inductors

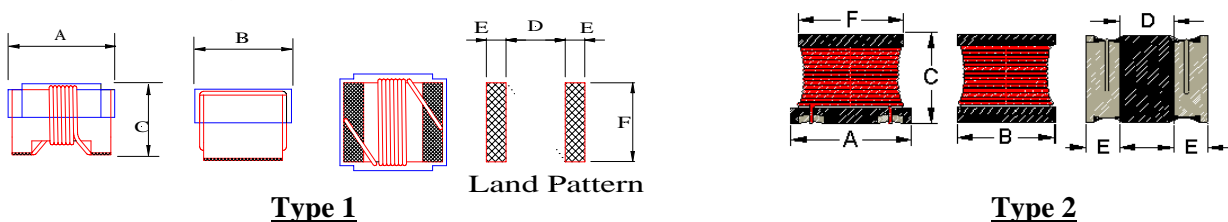
### A. Electrical specification:

- 0402C (Ceramic) Series: 1.0 nH (1360 mA) ~ 68 nH (100 mA), SRF from 12.7 GHz to 1.62 GHz.
- 0603C (Ceramic) Series: 1.6 nH (700 mA) ~ 390 nH (100 mA), SRF from 12 GHz to 900 MHz.
- 0805C (Ceramic) Series: 2.8 nH (800mA) ~ 820 nH (180 mA), SRF from 7.9 GHz to 215 MHz.
- 0805F (Ferrite) Series: 0.078 uH (2000 mA) ~ 27 uH (120mA), SRF from 1440 MHz to 11 MHz.
- 1008C (Ceramic) Series: 10.0 nH (1000 mA) ~ 4700 nH (260 mA), SRF from 4.1 GHz to 90 MHz.
- 1210C (Ceramic) Series: 4.7 nH (600 mA) ~ 2200 nH (150 mA), SRF from 6.0 GHz to 260 MHz.
- 1008F (Ferrite) Series: 0.047 uH (650 mA) ~ 10.0 uH (300 mA), SRF from 1800 MHz to 60 MHz.
- 1210F (Ferrite) Series: 0.010 uH (450 mA) ~ 470 uH (25 mA), SRF from 2500 MHz to 4 MHz.
- 1206SDF (Ferrite) Series: 0.12 uH (970 mA) ~ 100 uH (80 mA), SRF from 250 MHz to 7 MHz.
- 1210SDF (Ferrite) Series: 1.0 uH (1000 mA) ~ 560 uH (60 mA), SRF from 180 MHz to 5.5 MHz.
- 1306F (Ferrite) Series: 0.010 uH (500 mA) ~ 22 uH (80 mA), SRF from 2600 MHz to 12 MHz.
- 1812SDF (Ferrite) Series: 1.0 uH (1080 mA) ~ 470 uH (90 mA), SRF from 100 MHz to 3.0 MHz.
- 2220SDF (Ferrite) Series: 0.12 uH (6000 mA) ~ 10000 uH (50 mA), SRF from 450 MHz to 0.5 MHz.

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

SERIES	A	B	C	D	E	F	Type
0402C	1.27 (Max.)	0.76 (Max.)	0.61 (Max.)	0.46 (Max.)	0.50	0.66	1
0603C	1.80 (Max.)	1.12 (Max.)	1.02 (Max.)	0.64 (Max.)	0.64	1.02	1
0805C	2.29 (Max.)	1.73 (Max.)	1.52 (Max.)	0.76 (Max.)	1.02	1.78	1
0805F	2.29 (Max.)	1.90 (Max.)	1.60 (Max.)	0.76 (Max.)	1.02	1.78	1
1008C	2.92 (Max.)	2.79 (Max.)	2.03 (Max.)	1.27 (Max.)	1.02	2.54	1
1210C	3.50 (Max.)	2.80 (Max.)	2.30 (Max.)	2.30 (Max.)	1.02	2.20	1
1008F	2.92 (Max.)	2.79 (Max.)	2.03 (Max.)	1.27 (Max.)	1.02	2.54	1
1210F	3.70 (Max.)	2.50 (Max.)	2.10 (Max.)	2.30 (Max.)	0.60	2.20	1
1206SDF	3.2 ± 0.30	1.6 ± 0.20	1.8 ± 0.25	1.3 ± 0.20	0.9 ± 0.30	2.5 ± 0.20	2
1210SDF	3.2 ± 0.30	2.5 ± 0.20	2.0 ± 0.25	1.3 ± 0.20	0.9 ± 0.30	2.3 ± 0.20	2
1306F	3.60 (Max.)	1.60 (Max.)	1.60 (Max.)	2.00 (Max.)	0.52	1.40	1
1812SDF	4.5 ± 0.30	3.2 ± 0.30	2.6 ± 0.30	1.0 (Min.)	1.0 (Min.)	4.00	2
2220SDF	5.7 ± 0.30	5.0 ± 0.30	4.7 ± 0.30	1.7 (Min.)	1.3 (Min.)	5.0 ± 0.30	2

### C. Mechanical drawing:

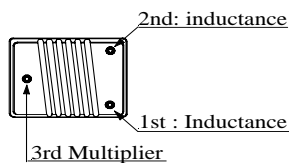


### D. General information:

- Tolerance: M: ±20%, K: ±10%, J: ±5%, G: ±2%, F: ±1%.
- Operating temperature: -40°C TO +125°C.
- For 15°C Temperature Rise.
- DCR measured using the 502BC.
- Inductance & Q measured using the HP4291B and SRF measured using the HP8720D or HP8753E.
- RoHS compliant.

### E. Color coding:

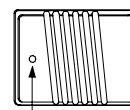
- For xxxxSDF-series, the marking per spec.
- For 0402C, it does not have color dot.
- For 0603C, 0805C & 0805F series: The parts are marked with single color dot; please see the table for each part.
- For 1008C size and up size, the parts are marked with 3 color dots.
  - Dots 1 and 2 indicate the inductance in nano-Henries.
  - Dots 3 indicate number of zeroes to be added.



Color code for 1008C size and up

0 = Black	5 = Green
1 = Brown	6 = Blue
2 = Red	7 = Violet
3 = Orange	8 = Gray
4 = Yellow	9 = White

Color code table



Identifier for 0603C, 0805C & 0805F series.

Color code for 0603C, 0805C & 0805F series