



# Frontier Electronics Corp.

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## SMD Molded Wire Wound Ferrite Chip Inductors—1306F series

### A. Electrical specifications:

Part No.	L (uH)	Tolerance	Q (min.)	TEST FREQ. (MHz)	SRF (min.) (MHz)	DCR (Ω) Max.	I dc (mA)	COLOR CODE
1306F-10N	0.010	M, K	10	100	2600	0.154	500	Black
1306F-12N	0.012	M, K	10	100	2400	0.168	490	Brown
1306F-15N	0.015	M, K	10	100	2200	0.196	480	Red
1306F-18N	0.018	M, K	10	100	2000	0.224	470	Yellow
1306F-22N	0.022	M, K	15	100	1800	0.252	460	Green
1306F-27N	0.027	M, K	15	100	1600	0.280	450	Blue
1306F-33N	0.033	M, K	15	100	1400	0.308	420	Violet
1306F-39N	0.039	M, K	15	100	1300	0.336	400	Gray
1306F-47N	0.047	M, K	15	100	1200	0.364	390	White
1306F-56N	0.056	M, K	15	100	1100	0.392	380	Black
1306F-68N	0.068	M, K	15	100	1000	0.420	370	Brown
1306F-82N	0.082	M, K	15	100	950	0.434	350	Red
1306F-R10	0.10	M, K	15	100	850	0.462	330	Yellow
1306F-R12	0.12	M, K	30	25.2	150	0.160	500	Green
1306F-R15	0.15	M, K	30	25.2	150	0.170	490	Blue
1306F-R18	0.18	M, K	30	25.2	150	0.190	460	Violet
1306F-R22	0.22	M, K	30	25.2	150	0.200	450	Gray
1306F-R27	0.27	M, K	30	25.2	150	0.230	420	White
1306F-R33	0.33	M, K	30	25.2	150	0.250	400	Black
1306F-R39	0.39	M, K	30	25.2	150	0.270	380	Brown
1306F-R47	0.47	M, K	30	25.2	110	0.310	360	Red
1306F-R56	0.56	M, K	30	25.2	100	0.340	340	Yellow
1306F-R68	0.68	M, K	30	25.2	80	0.370	330	Green
1306F-R82	0.82	M, K	30	25.2	70	0.410	310	Blue
1306F-1R0	1.00	M, K	30	25.2	60	0.450	300	Violet
1306F-1R2	1.20	M, K	30	7.96	50	0.500	280	Gray
1306F-1R5	1.50	M, K	30	7.96	43	0.560	270	White
1306F-1R8	1.80	M, K	30	7.96	40	0.620	250	Black
1306F-2R2	2.20	M, K	30	7.96	38	0.680	240	Brown
1306F-2R7	2.70	M, K	30	7.96	35	0.760	230	Red
1306F-3R3	3.30	M, K	30	7.96	33	0.860	220	Yellow
1306F-3R9	3.90	M, K	30	7.96	30	1.450	170	Green
1306F-4R7	4.70	M, K	30	7.96	28	1.600	160	Blue
1306F-5R6	5.60	M, K	30	7.96	26	1.750	150	Violet
1306F-6R8	6.80	M, K	30	7.96	24	2.350	130	Gray
1306F-8R2	8.20	M, K	30	7.96	22	2.600	125	White
1306F-100	10.0	M, K	30	7.96	20	2.900	120	Black
1306F-120	12.0	M, K	20	2.52	18	3.500	105	Brown
1306F-150	15.0	M, K	20	2.52	16	3.750	100	Red
1306F-180	18.0	M, K	20	2.52	14	5.300	85	Yellow
1306F-220	22.0	M, K	20	2.52	12	6.000	80	Green



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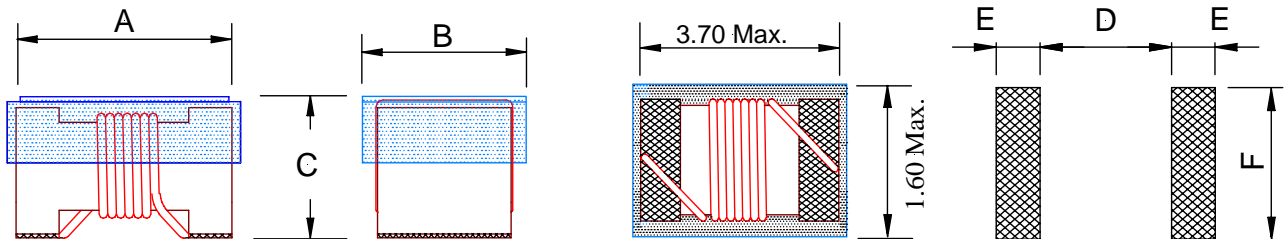
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## SMD Wire Wound Ferrite Chip Inductors—1306F series

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

SERIES	A (Max.)	B (Max.)	C (Max.)	D (Max.)	E	F
1306F	3.60	1.60	1.60	2.00	1.02	1.40

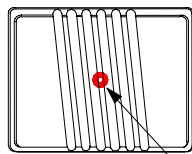
### C. Mechanical Drawing:



Land Pattern

### D. Color coding:

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



Identifier for 1306F series.

Top view

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

Color code table



### E. General information:

- Tolerance: M:  $\pm 20\%$ , K:  $\pm 10\%$ , J:  $\pm 5\%$ .
- Operating temperature:  $-40^{\circ}\text{C}$  TO  $+125^{\circ}\text{C}$ .
- Electrical specifications at  $25^{\circ}\text{C}$ .
- For  $15^{\circ}\text{C}$  Temperature Rise.
- Small and light weight surface mounting type.
- Coil body made of ferrite material in chip form.
- High Q at high frequency.
- High self-resonance frequency.
- Inductance & Q measured using the HP4291B.
- SRF measured using the HP8720D or HP8753E.
- DCR measured using the 502BC.
- Inductance & current Range: From  $0.010\mu\text{H}$  (500mA) to  $22\mu\text{H}$  (80mA).
- RoHS compliant.

### F. Applications:

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

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



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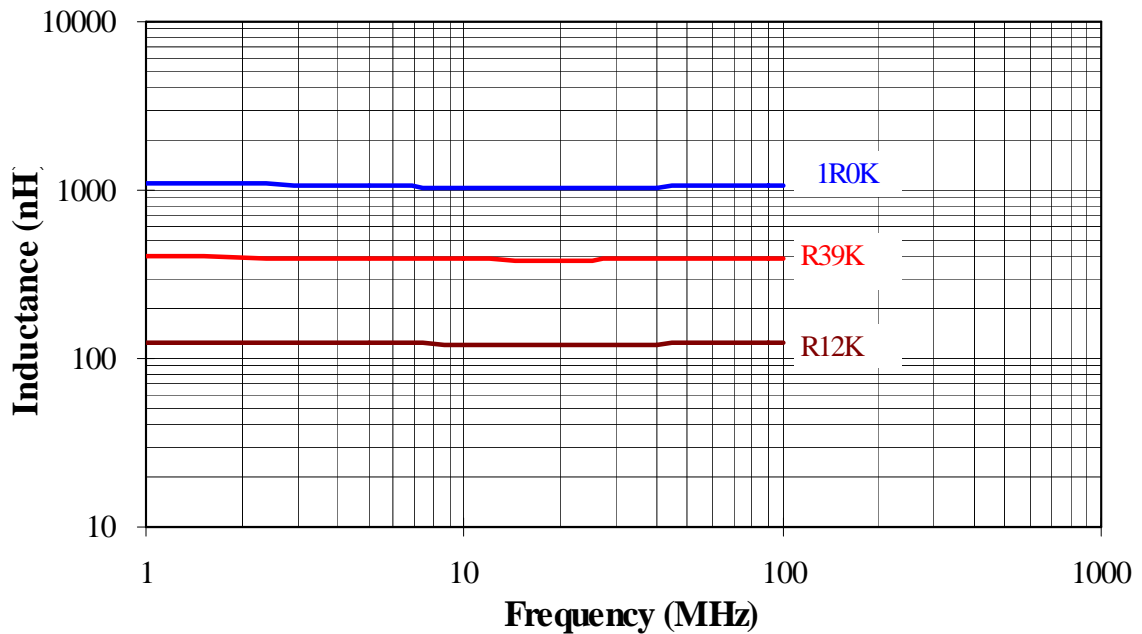
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## SMD Wire Wound Ferrite Chip Inductors—1306F series

### F. Characteristic curve:

#### 1. L vs. Frequency:



#### 2. Q vs. Frequency:

