



Frontier Electronics Corp.

667 E. COCHRAN STREET, SIMI VALLEY, CA 93065

TEL: (805) 522-9998 FAX: (805) 522-9989

E-mail: frontiersales@frontierusa.com

Web: <http://www.frontierusa.com>

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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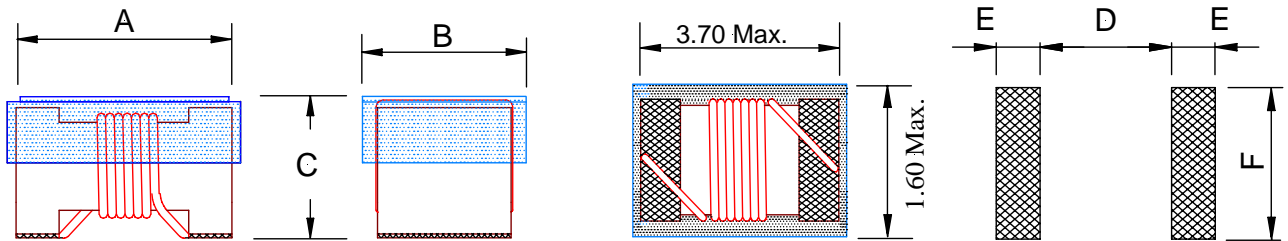
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B. Dimensions: (Unit: mm)

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

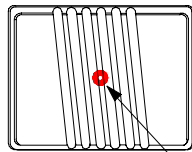
C. Mechanical Drawing:



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.

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

Color code table



Top view

E. General information:

- P/N: **1306F-XXX**: 1306F: Size, “XXX”: Inductance, “_”: Tolerance.
- Tolerance: M: $\pm 20\%$, K: $\pm 10\%$, J: $\pm 5\%$.
- Operating temperature: -40°C TO $+125^{\circ}\text{C}$.
- Electrical specifications at 25°C .
- For 15°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.*



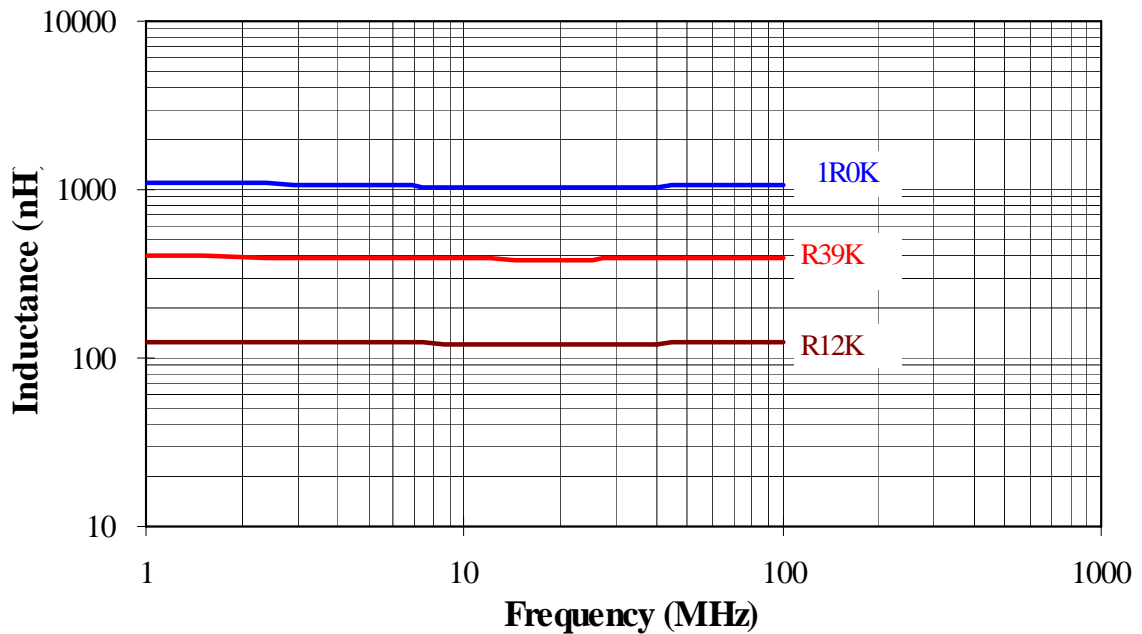
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F. Characteristic curve:

1. L vs. Frequency:



2. Q vs. Frequency:

