



Filter Inductors – 1812FS Series



- Magnetically shielded chip inductors
- Provides high performance in transmit and receive filters
- 29 inductance values from 1.0 – 1000 μH

Core material Ceramic/Ferrite

Terminations RoHS compliant silver-palladium-platinum-glass frit. Other terminations available at additional cost.

Weight 0.33 – 0.36 g

Ambient temperature -40°C to $+85^{\circ}\text{C}$ with Irms current

Maximum part temperature $+125^{\circ}\text{C}$ (ambient + temp rise). [Derating](#).

Storage temperature Component: -40°C to $+125^{\circ}\text{C}$.
Tape and reel packaging: -40°C to $+80^{\circ}\text{C}$

Resistance to soldering heat Max three 40 second reflows at $+260^{\circ}\text{C}$, parts cooled to room temperature between cycles

Moisture Sensitivity Level (MSL) 1 (unlimited floor life at $<30^{\circ}\text{C}$ / 85% relative humidity)

Failures in Time (FIT) / Mean Time Between Failures (MTBF)
38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332

Packaging 600/7" reel; 2200/13" reel. Plastic tape: 12 mm wide, 0.25 mm thick, 8 mm pocket spacing, 3.9 mm pocket depth

PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787_PCB_Washing.pdf](#).

Part number ¹	L ² (μH)	% ³ tol	Q ⁴ min	DCR ⁵ max (Ohms)	SRF ⁶ typ (MHz)	Isat ⁷ (mA)	Irms ⁸ (mA)
1812FS-102_L_	1.0	10.5	30	0.070	320	3100	2950
1812FS-122_L_	1.2	10.5	35	0.110	280	2800	2600
1812FS-152_L_	1.5	10.5	20	0.105	200	2100	2850
1812FS-222_L_	2.2	10.5	30	0.120	175	1800	2700
1812FS-242_L_	2.4	10.5	25	0.175	160	1900	2050
1812FS-272_L_	2.7	10.5	30	0.200	165	1400	2100
1812FS-332_L_	3.3	10.5	33	0.185	160	1400	1900
1812FS-392_L_	3.9	10.5	32	0.195	145	1300	1700
1812FS-472_L_	4.7	10.5	28	0.15	125	1000	1800
1812FS-562_L_	5.6	10.5	35	0.40	110	1000	1650
1812FS-682_L_	6.8	10.5	35	0.35	110	850	1450
1812FS-103_L_	10	10.5	35	0.55	90	710	1400
1812FS-153_L_	15	10.5	40	0.75	75	680	1150
1812FS-223_L_	22	10.5	45	0.85	15	600	855
1812FS-333_L_	33	10.5	45	1.1	10	540	820
1812FS-393_L_	39	10.5	45	1.1	9.8	500	710
1812FS-473_L_	47	10.5	45	1.2	8.0	390	645
1812FS-683_L_	68	10.5	45	1.8	14.2	260	650
1812FS-104_L_	100	10.5	45	2.5	4.5	260	520
1812FS-154_L_	150	10.5	40	3.8	3.4	220	475
1812FS-224_L_	220	10.5	45	5.4	3.0	180	390
1812FS-274_L_	270	10.5	35	6.5	2.0	150	350
1812FS-334_L_	330	10.5	45	6.8	3.0	150	310
1812FS-394_L_	390	10.5	35	7.6	2.6	140	310
1812FS-474_L_	470	10.5	35	8.7	2.1	130	280
1812FS-564_L_	560	10.5	20	11.2	1.60	110	280
1812FS-684_L_	680	10.5	25	12.7	1.90	100	250
1812FS-824_L_	820	10.5	25	16.8	1.45	90	210
1812FS-105_L_	1000	10.5	30	19.5	1.68	90	160

1. When ordering, please specify **tolerance, termination, and packaging** codes:

1812FS-105JLC

Tolerance: **J** = 5% **K** = 10%

(Table shows stock tolerances in bold.)

Termination: **L** = RoHS compliant silver-palladium-platinum-glass frit.

R = RoHS compliant matte tin over nickel over silver-platinum-glass frit.

Packaging: **C** = 7" machine-ready reel. EIA-481 embossed plastic tape (600 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).

D = 13" machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (2200 parts per full reel).

B = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to C.

2. Inductance measured at 100 kHz, 0.1 Vrms, 0 Adc using a Coilcraft SMD-A fixture in an Agilent/HP 4263B impedance analyzer.
 3. Tolerances in bold are stocked for immediate shipment.
 4. Q measured at 1 MHz on an Agilent/HP 4291A with an Agilent/HP 16193 test fixture.
 5. DCR measured on a micro-ohmmeter and a Coilcraft CCF840 test fixture.
 6. SRF measured using an Agilent/HP 8753D network analyzer and a Coilcraft SMD-D test fixture.
 7. DC current at 25°C that causes an inductance drop of 10% (typ) from its value without current. [Click for temperature derating information](#).
 8. Current that causes a 40°C temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings. [Click for temperature derating information](#).
 9. Electrical specifications at 25°C .
- Refer to Doc 362 "Soldering Surface Mount Components" before soldering.



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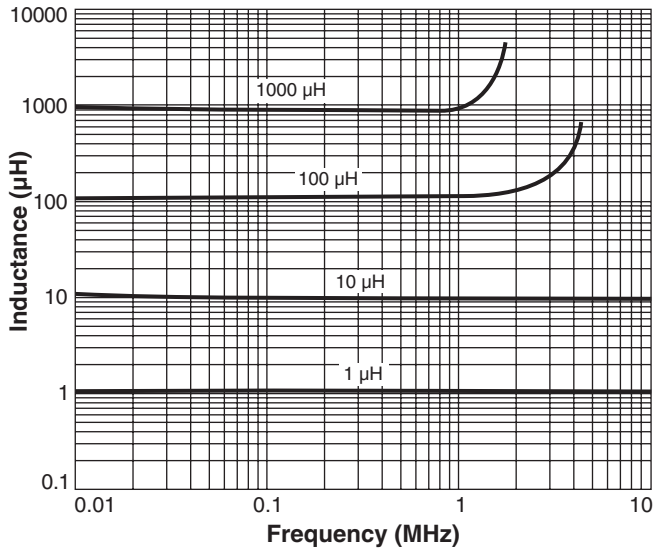
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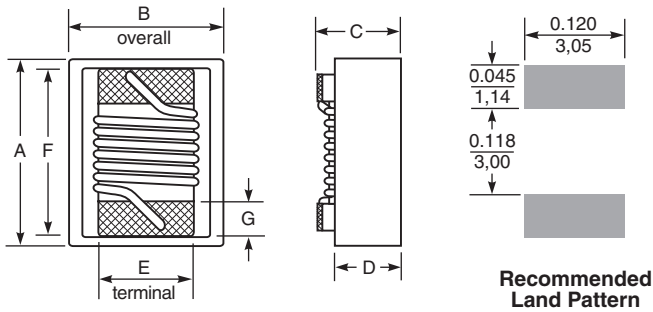
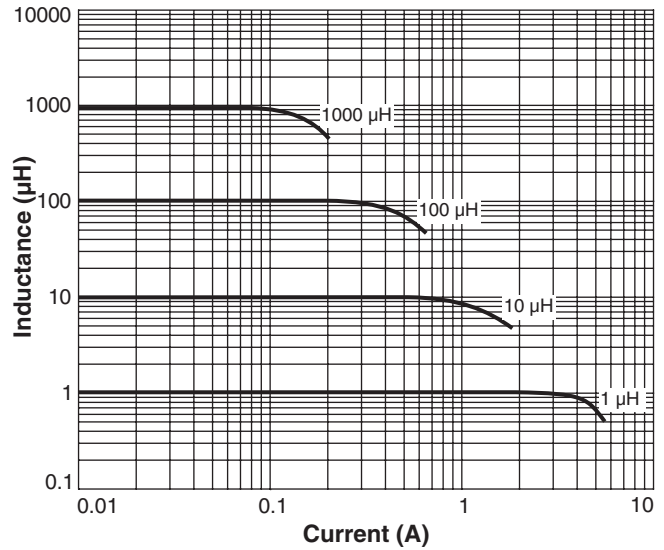


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Typical L vs Frequency



Typical L vs Current



A max	B max	C max	D ref	E ref	F ref	G
0,231	0,196	0,150	0,107	0,100	0,178	0,025 inches
5,87	4,98	3,81	2,72	2,54	4,52	0,64 mm



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