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°C with Irms current, +85°C to +125°C with derated current

Storage temperature Component: –40°C to +125°C. Packaging: –40°C to +80°C

Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

Temperature Coefficient of Inductance (TCL) +200 to +700 ppm/°C

Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°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 Only pure water or alcohol recommended

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	22.0	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, specify **tolerance, termination** and **packaging** codes:

1812FS-105 J L C

Tolerance: **J** = 5% **K** = 10% (Table shows stock tolerances in bold.)

Termination: **L** = Silver-palladium-platinum-glass frit terminations Special order: **T** = RoHS tin-silver-copper (95.5/4/0.5) or **S** = non-RoHS tin-lead (63/37).

Packaging: **C** = 7″ machine-ready reel. EIA-481 embossed plastic tape (600 parts per full reel).
B = Less than full reel. On tape, but not machine ready. To have a leader and a trailer added ($25 charge), use code letter C instead.
D = 13″ machine-ready reel. EIA-481 embossed plastic tape (2200 parts per full reel).

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 which the inductance drops 10% (typ) from its value without current.
8. Current that causes a 40°C temperature rise from 25°C ambient.
9. Electrical specifications at 25°C.

Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

Coilcraft®

Specifications subject to change without notice.
Please check our website for latest information. Document 254-1 Revised 10/06/08

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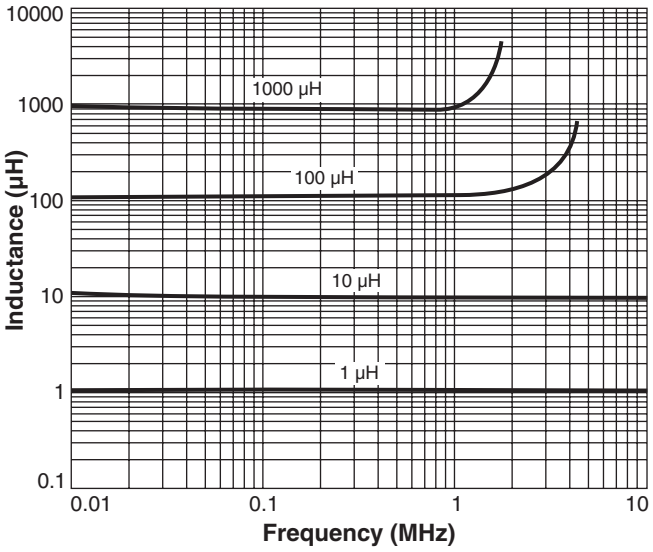
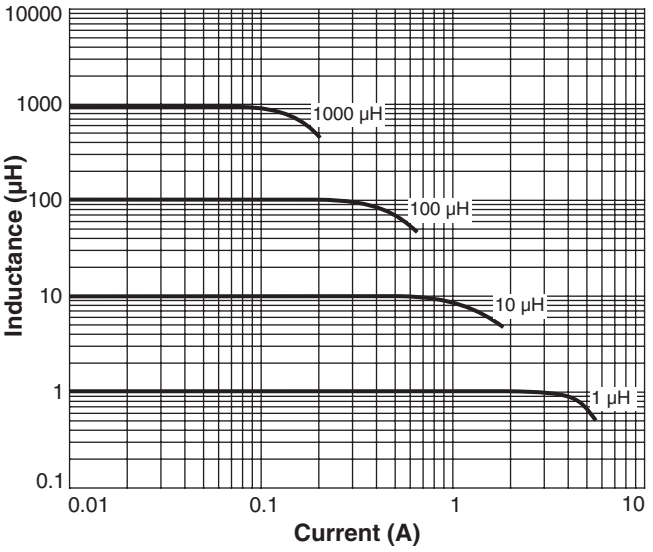
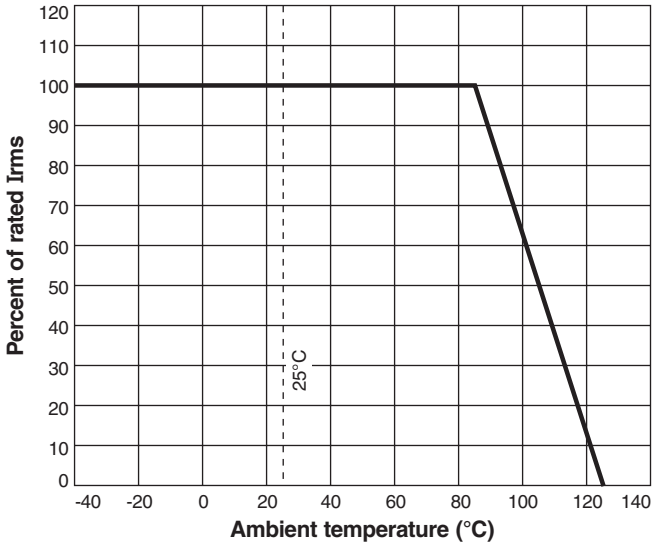
Typical L vs Frequency

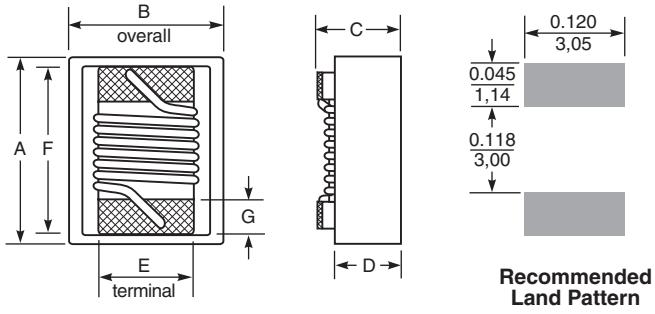


Typical L vs Current



Irms Derating





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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