

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.

Weight 0.33 – 0.36 g

Ambient temperature -40°C to $+85^{\circ}\text{C}$ with Irms current, $+85^{\circ}\text{C}$ to $+125^{\circ}\text{C}$ with derated current

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](#).

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

1812FS-105JLC

Tolerance: J = 5% K = 10%

(Table shows stock tolerances in bold.)

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.

| 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 |



www.coilcraft.com

US +1-847-639-6400 sales@coilcraft.com

UK +44-1236-730595 sales@coilcraft-europe.com

Taiwan +886-2-2264 3646 sales@coilcraft.com.tw

China +86-21-6218 8074 sales@coilcraft.com.cn

Singapore + 65-6484 8412 sales@coilcraft.com.sg

Document 254-1 Revised 02/23/15

© Coilcraft Inc. 2015

This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.



Filter Inductors – 1812FS Series

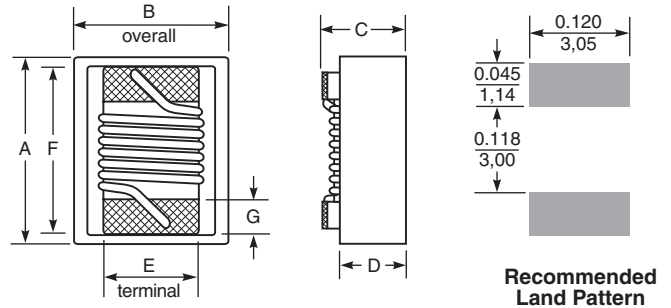
Typical L vs Frequency



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 |



US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore + 65-6484 8412 sales@coilcraft.com.sg

Document 254-2 Revised 02/23/15
 © Coilcraft Inc. 2015
 This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.

Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: info@moschip.ru

Skype отдела продаж:

moschip.ru

moschip.ru_4

moschip.ru_6

moschip.ru_9