



# Wirewound Ferrite Beads 1812FS Series

- Higher performance than other surface mount ferrite beads in the market
- High impedance across a wide bandwidth
- Extremely low DCR for high current applications
- Ferrite construction and heavy gauge wire for high current handling
- Eliminates high frequency noise in power supplies or RF signal isolation applications

Part number <sup>1</sup>	Inductance <sup>2</sup> ±10% (µH)	Impedance typ (Ohms)		SRF min <sup>3</sup> (MHz)	DCR max <sup>4</sup> (Ohms)	Isat <sup>5</sup> (mA)	Irms <sup>6</sup> (mA)
		1 MHz	10 MHz				
1812FS-102KR_	1.0	6.26	60.87	320	0.070	3100	2950
1812FS-122KR_	1.2	7.57	73.64	280	0.110	2800	2600
1812FS-152KR_	1.5	9.41	91.20	200	0.105	2100	2850
1812FS-222KR_	2.2	14.06	136.2	175	0.120	1800	2700
1812FS-242KR_	2.4	15.28	148.6	160	0.175	1900	2050
1812FS-272KR_	2.7	16.73	162.5	165	0.200	1400	2100
1812FS-332KR_	3.3	20.16	193.5	160	0.185	1400	1900
1812FS-392KR_	3.9	23.82	229.5	145	0.195	1300	1700
1812FS-472KR_	4.7	29.13	279.4	125	0.15	1000	1800
1812FS-562KR_	5.6	34.59	333.4	110	0.40	1000	1650
1812FS-682KR_	6.8	42.84	411.2	110	0.35	850	1450
1812FS-103KR_	10	61.96	598.7	90	0.55	710	1400
1812FS-153KR_	15	93.92	921.8	75	0.75	680	1150
1812FS-223KR_	22	141.7	2159	15	0.85	600	855
1812FS-333KR_	33	207.6	5508	10	1.1	540	820
1812FS-393KR_	39	249.0	30,259	9.8	1.1	500	710
1812FS-473KR_	47	311.6	3895	8.0	1.2	390	645
1812FS-683KR_	68	421.7	7433	14.2	1.8	260	650
1812FS-104KR_	100	639.0	1699	4.5	2.5	260	520
1812FS-154KR_	150	1069	1316	3.4	3.8	220	475
1812FS-224KR_	220	1589	1271	3.0	5.4	180	390
1812FS-274KR_	270	1912	1396	2.0	6.5	150	350
1812FS-334KR_	330	2305	1797	3.0	6.8	150	310
1812FS-394KR_	390	2779	1735	2.6	7.6	140	310
1812FS-474KR_	470	3648	1502	2.1	8.7	130	280
1812FS-564KR_	560	5552	1080	1.60	11.2	110	280
1812FS-684KR_	680	6208	1255	1.90	12.7	100	250
1812FS-824KR_	820	9885	1041	1.45	16.8	90	210
1812FS-105KR_	1000	10237	1759	1.68	19.5	90	160

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

**1812FS-105KR\_C**

- Termination:** **R** = RoHS compliant matte tin over nickel over silver-platinum-glass frit.  
**L** = RoHS compliant silver-palladium-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 (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.

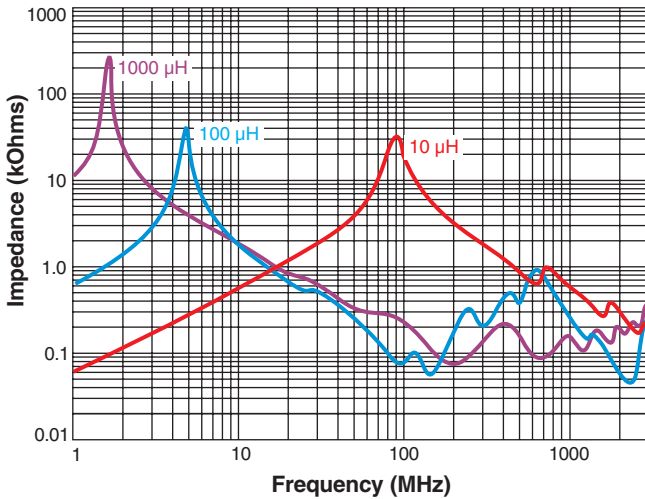
2. Inductance measured at 100 kHz, 0.1 Vrms, 0 Adc using a Coilcraft SMD-A fixture in an Agilent/HP 4263B impedance analyzer.  
 3. SRF measured using an Agilent/HP 8753D network analyzer and a Coilcraft SMD-D test fixture.  
 4. DCR measured on a micro-ohmmeter and a Coilcraft CCF840 test fixture.  
 5. DC current at 25°C that causes an inductance drop of 10% (typ) from its value without current. [Click for temperature derating information.](#)  
 6. 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.](#)  
 7. Electrical specifications at 25°C.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

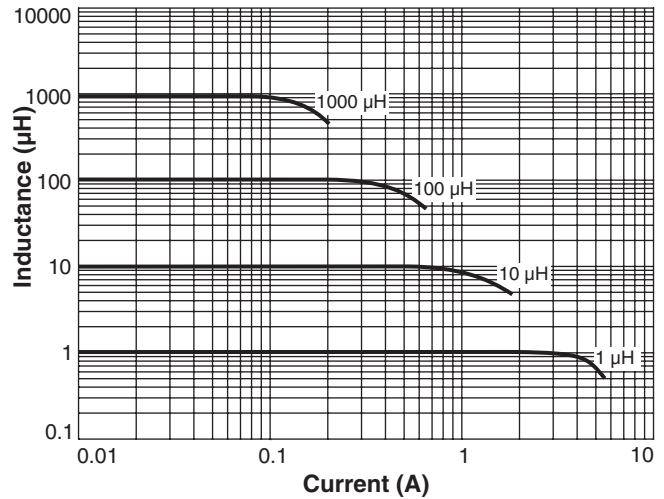


# 1812FS Series Wirewound Ferrite Beads

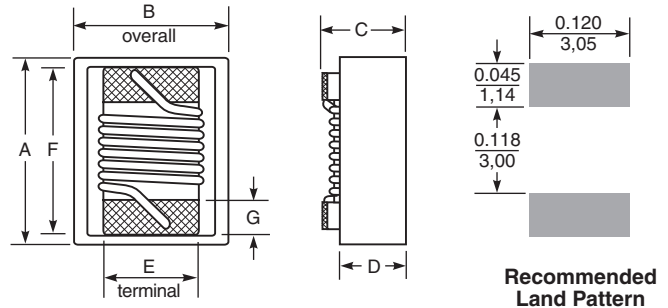
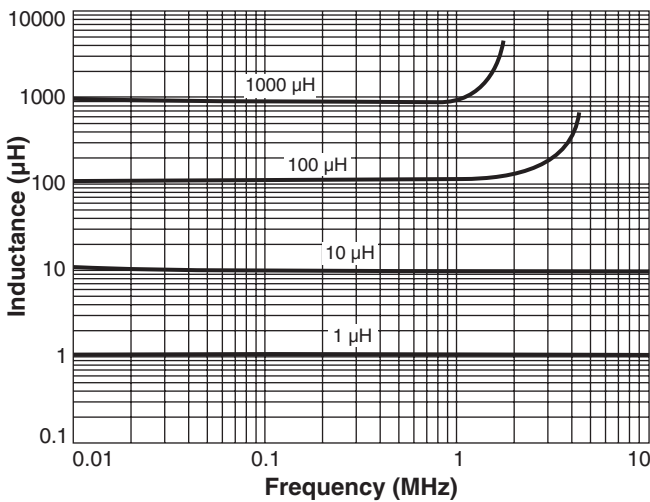
## Typical Impedance vs Frequency



## Typical L vs Current



## Typical L vs Frequency



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

**Core material** Ceramic/Ferrite

**Terminations** RoHS compliant matte tin over nickel over silver 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

**Maximum part temperature** +125°C (ambient + temp rise). [Derating.](#)

**Storage temperature** Component: -40°C to +125°C.

Tape and reel 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

**Moisture Sensitivity Level (MSL)** 1 (unlimited floor life at <30°C / 85% relative humidity)

**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](#).



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