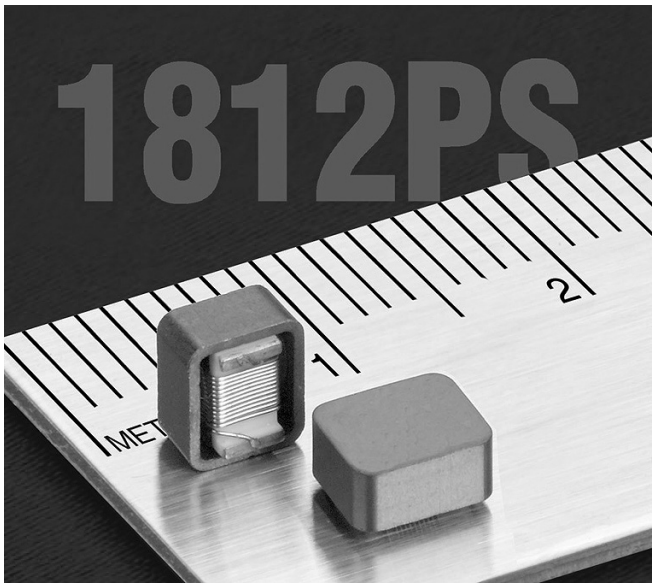
RoHS/ REACH COMPLIANT

Halogen Free OPTION

AEC Q200 +105°C

Shielded High SRF Inductors – 1812PS



- Higher SRF than our other power inductors
- High inductance with tight tolerance
- Excellent current handling for a part this size
- AEC-Q200 qualified

Core material Ceramic/Ferrite
Core and winding loss See www.coilcraft.com/coreloss
Environmental RoHS compliant, halogen free optional
Terminations RoHS compliant matte tin over nickel over silver platinum-glass frit. Other terminations available at additional cost.
Weight 286 – 323 mg
Ambient temperature –40°C to +105°C with (40°C rise) Irms current.
Maximum part temperature +145°C (ambient + temp rise). Derating.
Storage temperature Component: –40°C to +145°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)
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)	% tol[3]	Q min[4]	DCR max[5] (Ohms)	SRF typ[6] (MHz)	Isat[7] (A)	Irms[8] (A)
1812PS-102_R_	1.0	**10,5**	35	0.05	685	2.50	2.70
1812PS-122_R_	1.2	**10,5**	38	0.06	460	2.00	2.60
1812PS-152_R_	1.5	**10,5**	38	0.06	460	2.00	2.60
1812PS-222_R_	2.2	**10,5**	38	0.07	270	1.70	2.40
1812PS-272_R_	2.7	**10,5**	40	0.08	265	1.40	2.30
1812PS-332_R_	3.3	**10,5**	40	0.09	225	1.40	2.30
1812PS-392_R_	3.9	**10,5**	40	0.11	170	1.20	2.20
1812PS-472_R_	4.7	**10,5**	40	0.11	165	1.15	2.10
1812PS-562_R_	5.6	**10,5**	40	0.12	155	1.10	2.10
1812PS-682_R_	6.8	**10,5**	40	0.13	140	1.00	1.90
1812PS-103_R_	10	**10,5**	40	0.17	120	0.90	1.70
1812PS-153_R_	15	**10,5**	40	0.26	100	0.70	1.45
1812PS-223_R_	22	**10,5**	40	0.33	45	0.54	1.20
1812PS-333_R_	33	**10,5**	40	0.40	30	0.46	1.10
1812PS-393_R_	39	**10,5**	48	0.56	30	0.40	1.00
1812PS-473_R_	47	**10,5**	50	0.87	28	0.35	0.80
1812PS-683_R_	68	**10,5**	50	1.08	17	0.32	0.67
1812PS-823_R_	82	**10,5**	55	1.25	17	0.28	0.65
1812PS-104_R_	100	**10,5**	60	1.32	14	0.27	0.65
1812PS-124_R_	120	**10,5**	60	1.45	12	0.23	0.60
1812PS-154_R_	150	**10,5**	60	2.20	11	0.20	0.51
1812PS-224_R_	220	**10,5**	60	2.65	7	0.17	0.47
1812PS-334_R_	330	**10,5**	60	4.85	5.5	0.15	0.31
1812PS-474_R_	470	**10,5**	50	5.85	4.0	0.12	0.31
1812PS-564_R_	560	**10,5**	40	6.10	2.6	0.11	0.28
1812PS-684_R_	680	**10,5**	40	6.60	2.3	0.10	0.28
1812PS-824_R_	820	**10,5**	30	7.35	1.8	0.09	0.25
1812PS-105_R_	1000	**10,5**	28	10.00	1.8	0.08	0.22

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

1812PS-105JRC

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

Terminations: **R** = Halogen free component. Matte tin over nickel over silver-platinum-glass frit terminations.
L = RoHS compliant, not halogen-free. Silver-palladium-platinum-glass frit terminations

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, using aCoilcraft SMD-A fixture in an Agilent/HP 4263B LCR meter.
3. Tolerances in bold are stocked for immediate shipment.
4. Q measured at 1 MHz on an Agilent/HP 4291 with an Agilent/HP 16193 test fixture.
5. DCR measured on 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 the 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.

COILCRAFT ACCURATE REPEATABLE PRECISION MEASUREMENTS SEE WEB SITE TEST FIXTURES

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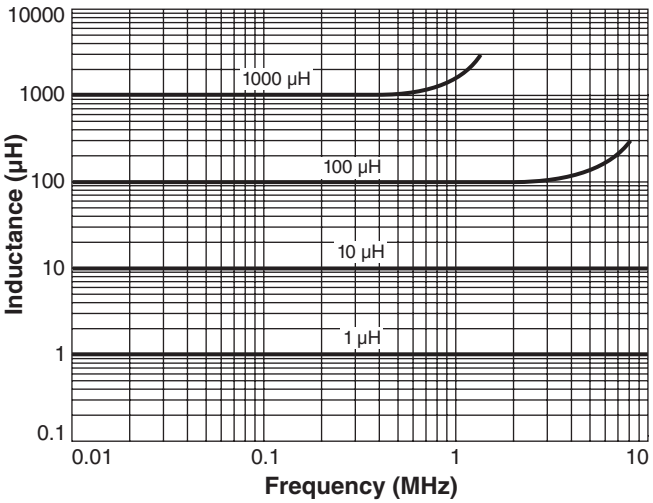
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This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.

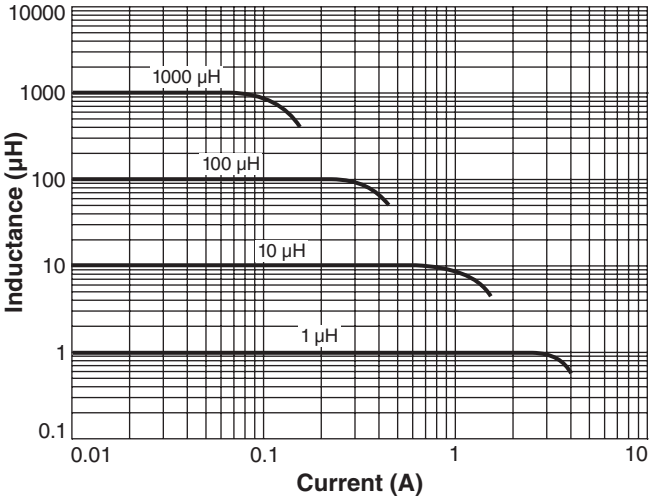
S-Parameter files
ON OUR WEB SITE
SPICE models
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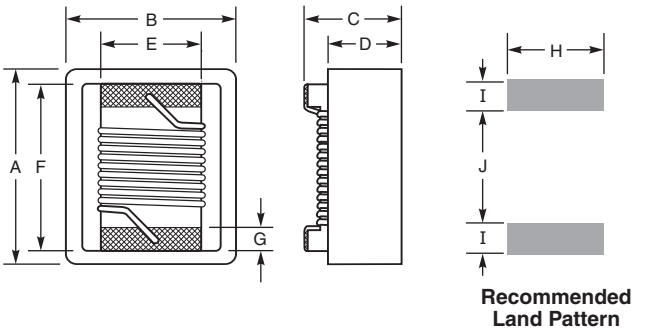
Power Chip Inductors - 1812PS Series

Typical L vs Frequency



Typical L vs Current





Recommended Land Pattern

A max	B max	C max	D ref	E ref	F ref	G	H	I	J	
0.231	0.196	0.150	0.107	0.100	0.178	0.025	0.120	0.045	0.118	inches
5,87	4,98	3,81	2,72	2,54	4,52	0,64	3,05	1,14	3,00	mm

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

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Specification subject to change without notice.
Please check web site for latest information.