Chip Inductors – 0805HP (2012)

- Exceptional Q values, even at high frequencies
- Tight tolerances – 2% for most
- Wirewound construction for highest possible self resonance – up to 9.5 GHz

Part number[1]	Inductance[2] (nH)	Percent tolerance[3]	Q typ[4]	SRF typ[5] (MHz)	DCR max[6] (mOhms)	Irms[7] (A)
0805HP-2N6XJR_	2.6 @ 250 MHz	**5**	100 @ 1500 MHz	9500	14.5	2.0
0805HP-6N2XJR_	6.2 @ 250 MHz	**5**	104 @ 1000 MHz	7200	27.2	1.5
0805HP-6N8XJR_	6.8 @ 250 MHz	**5**	90 @ 1000 MHz	6000	66.0	1.3
0805HP-11NX_R_	11 @ 250 MHz	**5,2**	93 @ 500 MHz	4750	39.0	1.6
0805HP-12NX_R_	12 @ 250 MHz	**5,2**	91 @ 500 MHz	4425	39.0	1.4
0805HP-13NX_R_	13 @ 250 MHz	**5,2**	91 @ 500 MHz	4100	39.0	1.4
0805HP-15NX_R_	15 @ 250 MHz	**5,2**	90 @ 500 MHz	3100	66.0	1.4
0805HP-18NX_R_	18 @ 250 MHz	**5,2**	95 @ 500 MHz	3650	50.0	1.2
0805HP-27NX_R_	27 @ 250 MHz	**5,2**	120 @ 500 MHz	2830	82.8	1.2
0805HP-33NX_R_	33 @ 250 MHz	**5,2**	100 @ 500 MHz	2410	87.0	1.1
0805HP-47NX_R_	47 @ 200 MHz	**5,2**	105 @ 500 MHz	2170	93.0	1.0
0805HP-50NX_R_	50 @ 200 MHz	**5,2**	115 @ 500 MHz	2010	123.6	1.0
0805HP-56NX_R_	56 @ 200 MHz	**5,2**	100 @ 500 MHz	1815	122.0	0.95
0805HP-62NX_R_	62 @ 200 MHz	**5,2**	114 @ 500 MHz	1820	144.0	0.90
0805HP-75NX_R_	75 @ 200 MHz	**5,2**	114 @ 500 MHz	1685	162.0	0.85
0805HP-82NX_R_	82 @ 150 MHz	**5,2**	103 @ 500 MHz	1525	168.0	0.82
0805HP-101X_R_	100 @ 150 MHz	**5,2**	100 @ 500 MHz	1400	220.0	0.72
0805HP-121X_R_	120 @ 150 MHz	**5,2**	80 @ 250 MHz	1265	293.0	0.62
0805HP-151X_R_	150 @ 100 MHz	**5,2**	80 @ 250 MHz	1150	288.0	0.60
0805HP-181X_R_	180 @ 100 MHz	**5,2**	77 @ 250 MHz	1025	374.0	0.54
0805HP-201X_R_	200 @ 100 MHz	**5,2**	75 @ 250 MHz	950	399.6	0.54
0805HP-221X_R_	220 @ 100 MHz	**5,2**	75 @ 250 MHz	930	426.0	0.50
0805HP-251X_R_	250 @ 100 MHz	**5,2**	74 @ 250 MHz	873	564.0	0.49
0805HP-271X_R_	270 @ 100 MHz	**5,2**	75 @ 100 MHz	830	754.3	0.42
0805HP-291X_R_	290 @ 100 MHz	**5,2**	54 @ 100 MHz	840	804.0	0.40
0805HP-311X_R_	310 @ 100 MHz	**5,2**	54 @ 100 MHz	820	824.4	0.40
0805HP-331X_R_	330 @ 100 MHz	**5,2**	54 @ 100 MHz	770	1003.6	0.36
0805HP-391X_R_	390 @ 100 MHz	**5,2**	52 @ 100 MHz	700	1109.9	0.33
0805HP-471X_R_	470 @ 50 MHz	**5,2**	52 @ 100 MHz	640	1559.4	0.28
0805HP-561X_R_	560 @ 25 MHz	**5,2**	46 @ 100 MHz	550	2067.4	0.24
0805HP-681X_R_	680 @ 25 MHz	**5,2**	46 @ 100 MHz	535	2355.4	0.21
0805HP-821X_R_	820 @ 25 MHz	**5,2**	50 @ 100 MHz	485	3945.5	0.18

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

0805HP-821XJRC

Tolerance: **G** = 2% **J** = 5%

Termination: **R** = RoHS compliant matte tin over nickel over silver-glass frit
Special order: **Q** = RoHS tin-silver-copper (95.5/4/0.5) over tin or **P** = non-RoHS tin-lead (63/37) over tin.

Packaging: **C** = 7″ machine-ready reel. EIA-481 embossed plastic tape (2000 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 (7500 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 using a Coilcraft SMD-A fixture in an Agilent/HP 4286A impedance analyzer with Coilcraft-provided correlation pieces.
3. Tolerances in bold are stocked for immediate shipment.
4. Q measured using an Agilent/HP 4291A with an Agilent/HP 16193 test fixture.
5. SRF measured using an Agilent/HP 8720D network analyzer and a Coilcraft SMD-D test fixture.
6. DCR measured on a Cambridge Technology micro-ohmmeter and a Coilcraft CCF858 test fixture.
7. Current that causes a 15°C temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.
8. Electrical specifications at 25°C.

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

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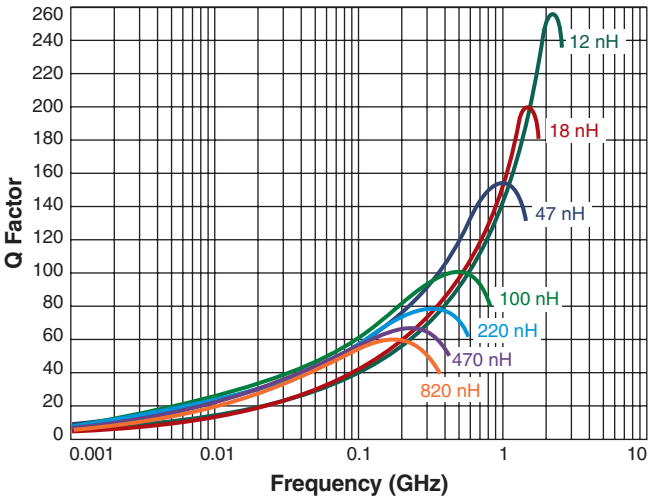
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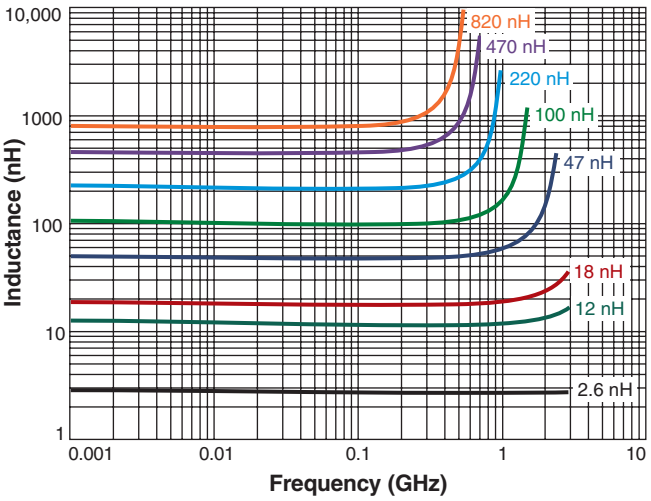
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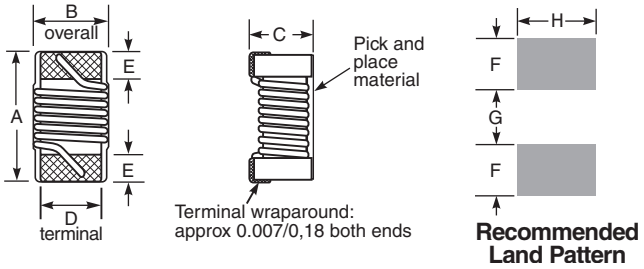
0805HP Series (2012)

Typical Q vs Frequency



Typical L vs Frequency





A max	B max	C max	D ref	E	F	G	H	
0.087	0.068	0.061	0.061	0.012	0.040	0.044	0.078	inches
2,21	1,73	1,55	1,55	0,30	1,02	1,12	1,98	mm

Note: Height dimension (C) is before optional solder application. For maximum height dimension including solder, add 0.006 in / 0,152 mm.

Core material Ceramic
Environmental RoHS compliant, halogen free
Terminations RoHS compliant matte tin over nickel over silver-glass frit. Other terminations available at additional cost.
Weight 9.5 – 12.5 mg
Ambient temperature –40°C to +125°C with Irms current
Maximum part temperature +140°C (ambient + temp rise).
Storage temperature Component: –40°C to +140°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
Temperature Coefficient of Inductance (TCL) +100 to +250 ppm/°C
Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)
Packaging 2000/7″ reel; 7500/13″ reel. Plastic tape: 8 mm wide, 0.23 mm thick, 4 mm pocket spacing, 1.65 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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