

Chip Inductors – 0805HS (2012)

Ceramic body and wire wound construction provide highest SRFs available in 0805 size. These ultra-compact inductors provide exceptional Q values, even at high frequencies.

Free evaluation samples are available by contacting Coilcraft or ordering them on-line at www.coilcraft.com.

Part number ¹	Inductance ² (nH)	Percent tolerance ³	Q min ⁴	SRF min ⁵ (MHz)	DCR max ⁶ (Ohms)	Irms ⁷ (mA)	Color code
0805HS-030TJL_	3.3 @ 250 MHz	5	50 @ 1500 MHz	7900	0.08	600	Black
0805HS-060TJL_	6.8 @ 250 MHz	5	50 @ 1000 MHz	5500	0.11	600	Brown
0805HS-080TJL_	8.2 @ 250 MHz	5	50 @ 1000 MHz	4700	0.12	600	Red
0805HS-100TJL_	10 @ 250 MHz	5	60 @ 500 MHz	4200	0.10	600	Blue
0805HS-120TJL_	12 @ 250 MHz	5	50 @ 500 MHz	4000	0.15	600	Orange
0805HS-150TJL_	15 @ 250 MHz	5	50 @ 500 MHz	3400	0.17	600	Yellow
0805HS-180TJL_	18 @ 250 MHz	5	50 @ 500 MHz	3300	0.20	600	Green
0805HS-220T_L_	22 @ 250 MHz	5,2	55 @ 500 MHz	2600	0.22	500	Blue
0805HS-270T_L_	27 @ 250 MHz	5,2	55 @ 500 MHz	2500	0.25	500	Violet
0805HS-330T_L_	33 @ 250 MHz	5,2	60 @ 500 MHz	2050	0.27	500	Gray
0805HS-390T_L_	39 @ 250 MHz	5,2	60 @ 500 MHz	2000	0.29	500	White
0805HS-470T_L_	47 @ 200 MHz	5,2	60 @ 500 MHz	1650	0.31	500	Black
0805HS-560T_L_	56 @ 200 MHz	5,2,1	60 @ 500 MHz	1550	0.34	500	Brown
0805HS-680T_L_	68 @ 200 MHz	5,2,1	60 @ 500 MHz	1450	0.38	500	Red
0805HS-820T_L_	82 @ 150 MHz	5,2,1	65 @ 500 MHz	1300	0.42	400	Orange
0805HS-101T_L_	100 @ 150 MHz	5,2,1	65 @ 500 MHz	1200	0.46	400	Yellow
0805HS-121T_L_	120 @ 150 MHz	5,2,1	50 @ 250 MHz	1100	0.51	400	Green
0805HS-151T_L_	150 @ 100 MHz	5,2,1	50 @ 250 MHz	920	0.56	400	Blue
0805HS-181T_L_	180 @ 100 MHz	5,2,1	50 @ 250 MHz	870	0.64	400	Violet
0805HS-221T_L_	220 @ 100 MHz	5,2	50 @ 250 MHz	850	0.70	400	Gray

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

0805HS-221TJLC

Tolerance: F = 1% G = 2% J = 5%

(Table shows stock tolerances in bold.)

Termination: L = RoHS compliant silver-palladium-platinum-glass frit.
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 (2000 parts per full reel).

B = Less than full reel. In tape, but not machine ready.
To have a leader and trailer added (\$25 charge), use code letter C instead.

D = 13" machine-ready reel. EIA-481 embossed plastic tape (7500 parts per full reel).

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.

Core material Ceramic

Terminations RoHS compliant silver-palladium-platinum-glass frit.
Other terminations available at additional cost.

Weight 9.8 – 10.9 mg

Ambient temperature –40°C to +85°C with Irms current

Maximum part temperature +100°C (ambient + temp rise).

Storage temperature Component: –40°C to +100°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) +25 to +125 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)

One per billion hours / one billion hours, calculated per Telcordia SR-332

Packaging 2000/7" reel; 750/13" reel Paper tape: 8 mm wide, 0.23 mm thick, 4 mm pocket spacing, 1.3 mm pocket depth

PCB washing Tested with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf.



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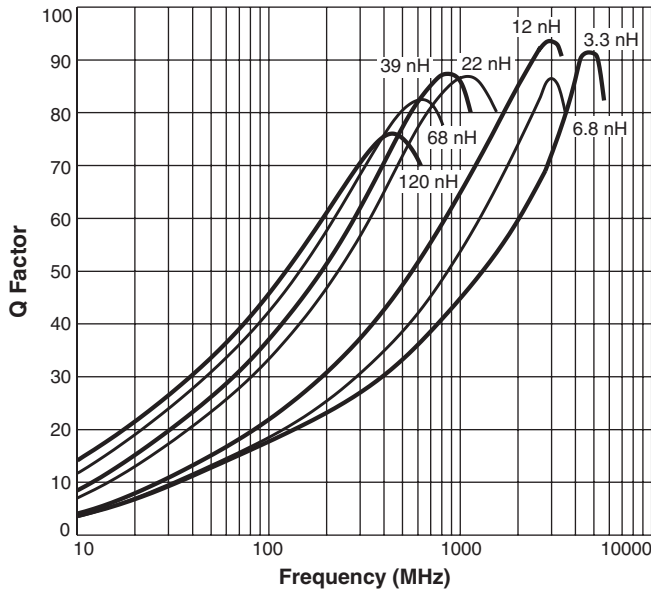
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 TEST FIXTURES
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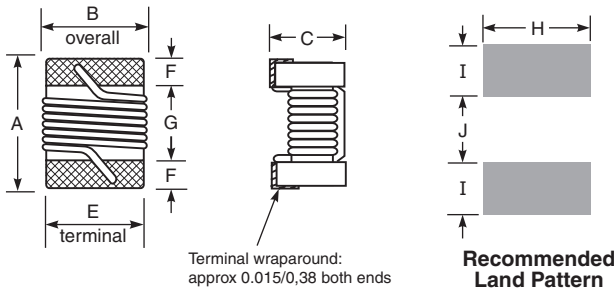
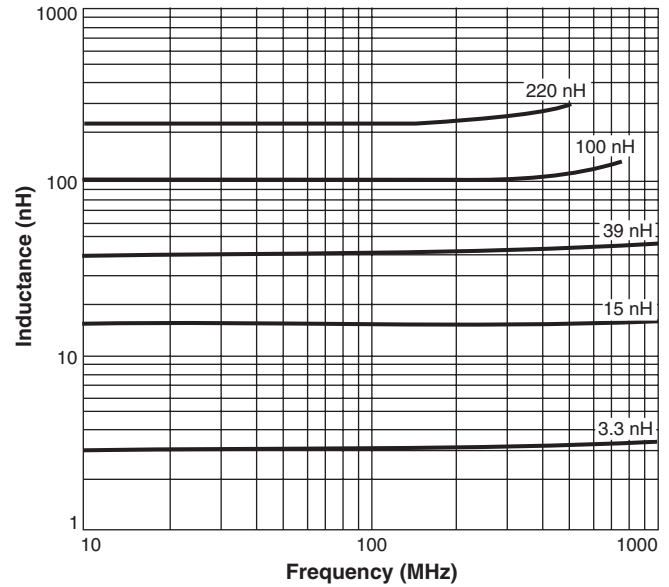


0805HS Series (2012)

Typical Q vs Frequency



Typical L vs Frequency



A	B	C	E	F	G	H	I	J
max	max	max						
0.085	0.060	0.057	0.050	0.020	0.040	0.070	0.040	0.030
2,16	1,52	1,45	1,27	0,51	1,02	1,78	1,02	0,76

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

S-Parameter files
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SPICE models
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