



# 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](http://www.coilcraft.com).

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

**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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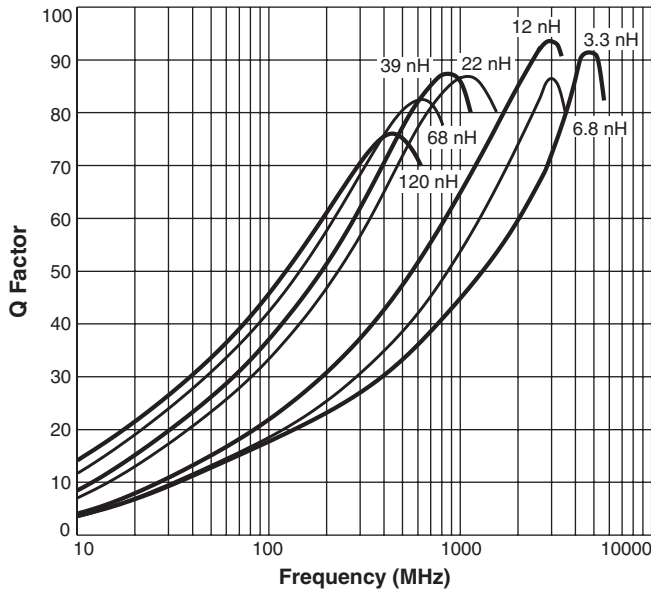
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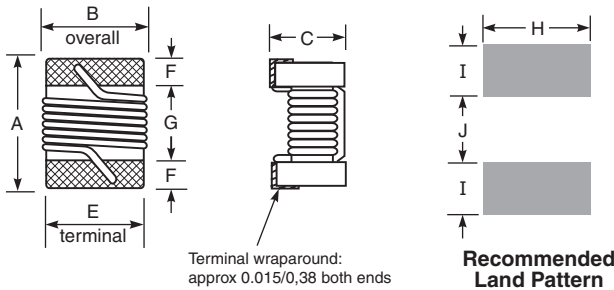
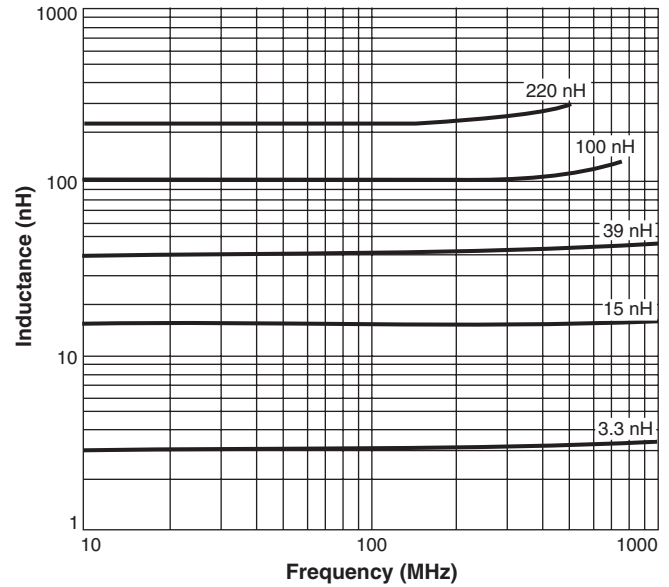


# 0805HS Series (2012)

## 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	0.017	0.046	0.070	0.040	0.030
2,16	1,52	1,45	1,27	0,43	1,17	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**  
ON OUR WEB SITE  
**SPICE models**  
ON OUR WEB SITE



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