



# Chip Inductors – 0805HS Series (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 @ 1500MHz	7900	0.08	600	Black
0805HS-060TJL_	6.8 @ 250 MHz	<b>5</b>	50 @ 1000MHz	5500	0.11	600	Brown
0805HS-080TJL_	8.2 @ 250 MHz	<b>5</b>	50 @ 1000MHz	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-221T J L C**

**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.

8. **Ambient temperature range:** -40°C to +125°C with Irms current  
+125°C to +140°C with derated current

9. **Storage temperature range:** Component: -40°C to +140°C  
Packaging: -55°C to +80°C

10. **Resistance to soldering heat:** Three reflows at >217°C for 90 seconds (+260°C ±5°C for 20 – 40 seconds), allowing parts to cool to room temperature between.

11. Electrical specifications at 25°C.

12. Temperature coefficient of inductance: +25 to +125 ppm/°C.

See Qualification Standards section for environmental and test data.

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

**COILCRAFT** ACCURATE  
**PRECISION** REPEATABLE  
MEASUREMENTS  
SEE INDEX **TEST FIXTURES**

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Specifications subject to change without notice.  
Please check our website for latest information.

Document 159-1 Revised 09/21/07

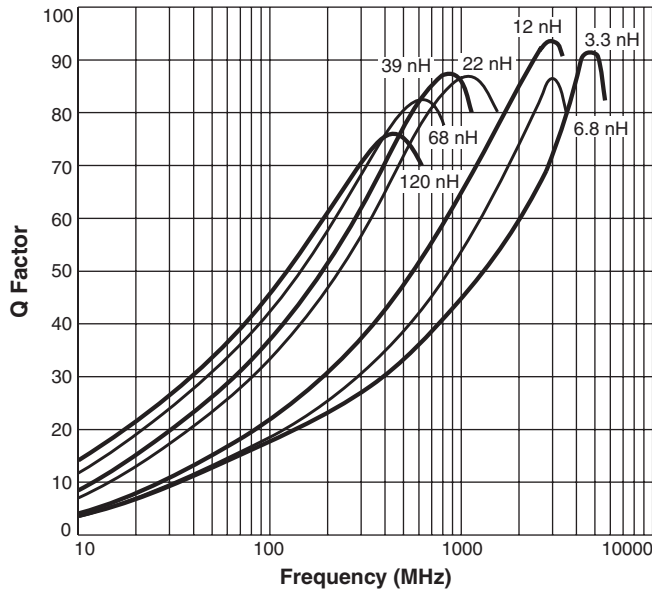
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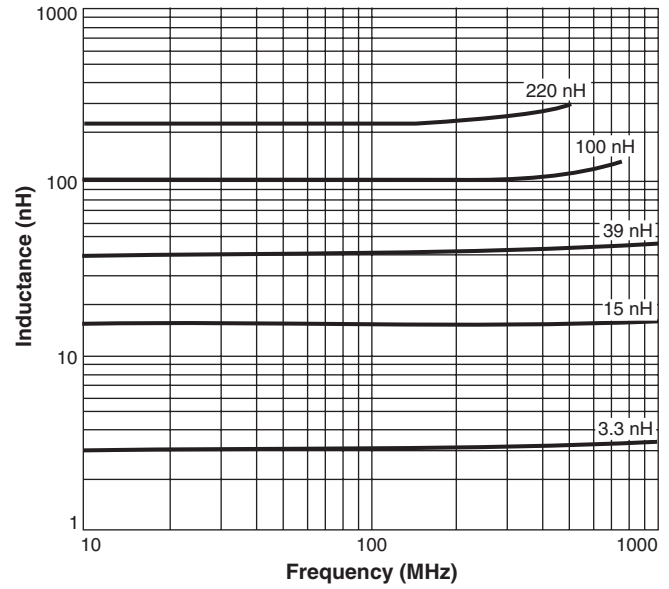
# 0805HS Series (2012)

## Typical Q vs Frequency

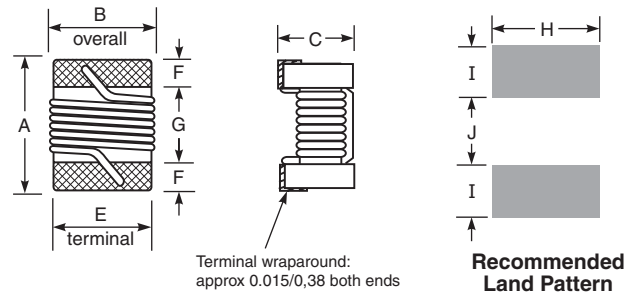
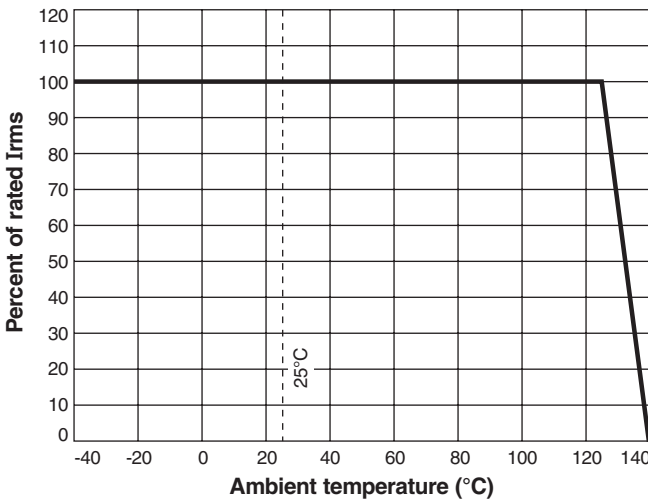


**S-Parameter files**  
ON OUR WEB SITE OR CD  
**SPICE models**  
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## Typical L vs Frequency



## Irms Derating



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

**Weight:** 9.8 – 10.9 mg  
**Tape and reel:** 2000/7" reel; 7500/13" reel 8 mm tape width  
For packaging data see Tape and Reel Specifications section.



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Document 159-2 Revised 9/21/07

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