



# Chip Inductors – 0805HT Series (2012)

At just 0.035" high, these are one of our lowest profile surface mount inductors. Their wire wound ceramic design provides tight tolerances, exceptional Q and high SRF values.

Coilcraft **Designer's Kit C321** contains samples of all 5% parts shown as stocked. To order, contact Coilcraft or visit <http://order.coilcraft.com> to purchase on-line.

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)	I <sub>rms</sub> <sup>7</sup> (mA)	Color Code
0805HT-1N8TJL_	1.8 @ 250 MHz	<b>5</b>	55 @ 1500 MHz	9400	0.030	800	Black
0805HT-2N0TJL_	2.0 @ 250 MHz	<b>5</b>	55 @ 1500 MHz	11500	0.018	800	Violet
0805HT-3N9TJL_	3.9 @ 250 MHz	<b>5</b>	50 @ 1000 MHz	6100	0.055	800	Brown
0805HT-4N3TJL_	4.3 @ 250 MHz	<b>5</b>	80 @ 1000 MHz	6364	0.030	800	White
0805HT-4N7TJL_	4.7 @ 250 MHz	<b>5</b>	50 @ 1000 MHz	5500	0.060	800	Red
0805HT-5N1TJL_	5.1 @ 250 MHz	<b>5</b>	45 @ 1000 MHz	6100	0.069	800	Blue
0805HT-5N6TJL_	5.6 @ 250 MHz	<b>5</b>	45 @ 1000 MHz	5800	0.091	800	Gray
0805HT-6N8TJL_	6.8 @ 250 MHz	<b>5</b>	50 @ 1000 MHz	4800	0.080	800	Orange
0805HT-7N5TJL_	7.5 @ 250 MHz	<b>5</b>	47 @ 1000 MHz	4600	0.082	800	Black
0805HT-8N2TJL_	8.2 @ 250 MHz	<b>5</b>	50 @ 1000 MHz	4800	0.080	800	Yellow
0805HT-9N1TJL_	9.1 @ 250 MHz	<b>5</b>	54 @ 1000 MHz	3900	0.105	800	Red
0805HT-10NT_L_	10 @ 250 MHz	<b>5,2</b>	55 @ 750 MHz	3300	0.080	800	Green
0805HT-12NT_L_	12 @ 250 MHz	<b>5,2</b>	55 @ 750 MHz	3800	0.10	800	Blue
0805HT-15NT_L_	15 @ 250 MHz	<b>5,2</b>	50 @ 500 MHz	2950	0.10	800	Violet
0805HT-18NT_L_	18 @ 250 MHz	<b>5,2</b>	50 @ 500 MHz	3100	0.13	800	Gray
0805HT-20NT_L_	20 @ 250 MHz	<b>5,2</b>	50 @ 500 MHz	2700	0.17	800	Yellow
0805HT-22NT_L_	22 @ 250 MHz	<b>5,2</b>	50 @ 500 MHz	2900	0.15	800	White
0805HT-27NT_L_	27 @ 250 MHz	<b>5,2</b>	50 @ 500 MHz	2450	0.19	700	Black
0805HT-33NT_L_	33 @ 250 MHz	<b>5,2</b>	55 @ 500 MHz	2350	0.19	600	Brown
0805HT-39NT_L_	39 @ 250 MHz	<b>5,2,1</b>	55 @ 500 MHz	2200	0.27	600	Red
0805HT-47NT_L_	47 @ 200 MHz	<b>5,2,1</b>	50 @ 500 MHz	2000	0.30	600	Orange
0805HT-56NT_L_	56 @ 200 MHz	<b>5,2,1</b>	50 @ 500 MHz	1850	0.39	500	Yellow
0805HT-68NT_L_	68 @ 200 MHz	<b>5,2,1</b>	50 @ 500 MHz	1500	0.40	500	Green
0805HT-82NT_L_	82 @ 150 MHz	<b>5,2,1</b>	50 @ 500 MHz	1500	0.44	500	Blue
0805HT-R10T_L_	100 @ 150 MHz	<b>5,2</b>	50 @ 500 MHz	1200	0.64	400	Violet
0805HT-R12T_L_	120 @ 150 MHz	<b>5,2</b>	40 @ 250 MHz	1150	0.68	300	Gray
0805HT-R15T_L_	150 @ 150 MHz	<b>5,2</b>	40 @ 250 MHz	1050	0.80	300	White
0805HT-R18T_L_	180 @ 150 MHz	<b>5,2</b>	40 @ 250 MHz	830	0.86	300	Black
0805HT-R22T_L_	220 @ 150 MHz	<b>5,2</b>	39 @ 150 MHz	820	1.29	200	Orange
0805HT-R27T_L_	270 @ 150 MHz	<b>5,2</b>	33 @ 150 MHz	790	1.40	200	Yellow
0805HT-R33T_L_	330 @ 150 MHz	<b>5,2</b>	32 @ 150 MHz	730	1.93	200	Green
0805HT-R39T_L_	390 @ 100 MHz	<b>5,2</b>	30 @ 150 MHz	675	2.80	200	Blue
0805HT-R47T_L_	470 @ 100 MHz	<b>5,2</b>	30 @ 150 MHz	610	3.10	200	Violet
0805HT-R50T_L_	500 @ 50 MHz	<b>5,2</b>	20 @ 50 MHz	585	3.20	200	Gray

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

0805HT-R22T G L C

**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).

**Tolerance:** F = 1% G = 2% J = 5%  
(Table shows stock tolerances in bold.)

**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. Factory order only, not stocked (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 and on an Agilent/HP 8753D with a Coilcraft SMD-D 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. Electrical specifications at 25°C.

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

**Coilcraft**®

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

Document 168-1 Revised 10/06/08

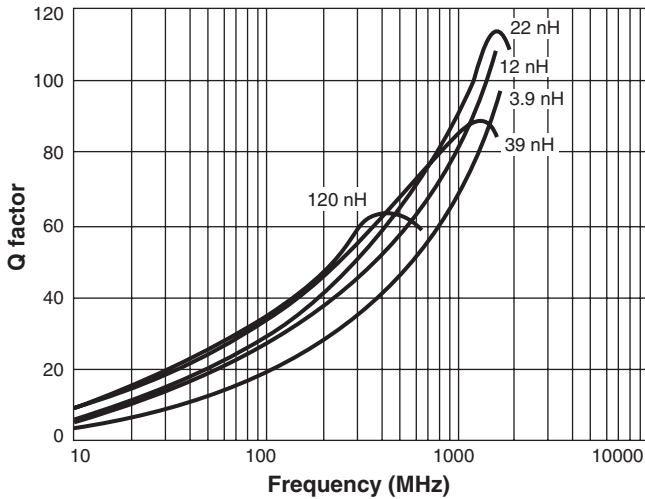
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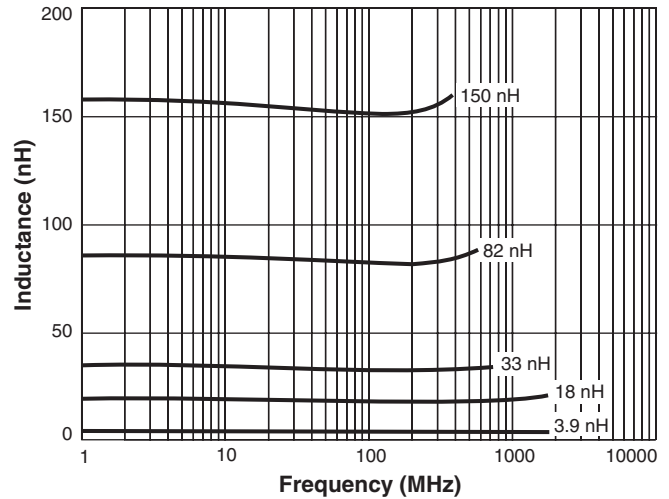


# 0805HT Series (2012)

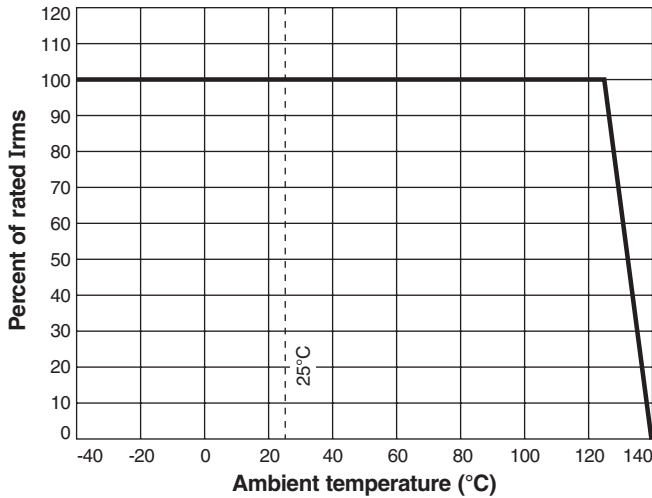
## Typical Q vs Frequency



## Typical L vs Frequency



## Irms Derating



**Designer's Kit C321** contains samples of all 5% tolerance parts

**Core material** Ceramic

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

**Weight** 6.0 – 6.9 mg

**Ambient temperature** -40°C to +125°C with I<sub>rms</sub> current, +125°C to +140°C with derated current

**Storage temperature** Component: -40°C to +140°C. 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)

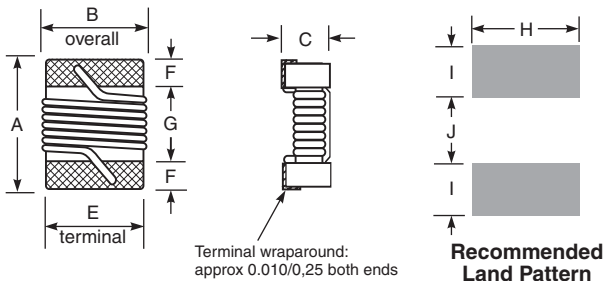
**Failures in Time (FIT) / Mean Time Between Failures (MTBF)**

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

**Packaging** 2000 per 7" reel; 7500 per 13" reel;

Plastic tape: 8 mm wide, 0.23 mm thick, 4 mm pocket spacing, 0.9 mm pocket depth

**PCB washing** Only pure water or alcohol recommended



A	B	C	E	F	G	H	I	J	
max	max	max							inches
0.085	0.060	0.035	0.050	0.017	0.045	0.070	0.040	0.030	
2,16	1,52	0,89	1,27	0,43	1,14	1,78	1,02	0,76	mm



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

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