

# Chip Inductors – 0805HT (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)	Irms <sup>7</sup> (mA)	Color Code
0805HT-1N8TJE_	1.8 @ 250 MHz	<b>5</b>	55 @ 1500 MHz	9400	0.030	800	Black
0805HT-2N0TJE_	2.0 @ 250 MHz	<b>5</b>	55 @ 1500 MHz	11500	0.018	800	Violet
0805HT-3N9TJE_	3.9 @ 250 MHz	<b>5</b>	50 @ 1000 MHz	6100	0.055	800	Brown
0805HT-4N3TJE_	4.3 @ 250 MHz	<b>5</b>	80 @ 1000 MHz	6364	0.030	800	White
0805HT-4N7TJE_	4.7 @ 250 MHz	<b>5</b>	50 @ 1000 MHz	5500	0.060	800	Red
0805HT-5N1TJE_	5.1 @ 250 MHz	<b>5</b>	45 @ 1000 MHz	6100	0.069	800	Blue
0805HT-5N6TJE_	5.6 @ 250 MHz	<b>5</b>	45 @ 1000 MHz	5800	0.091	800	Gray
0805HT-6N8TJE_	6.8 @ 250 MHz	<b>5</b>	50 @ 1000 MHz	4800	0.080	800	Orange
0805HT-7N5TJE_	7.5 @ 250 MHz	<b>5</b>	47 @ 1000 MHz	4600	0.082	800	Black
0805HT-8N2TJE_	8.2 @ 250 MHz	<b>5</b>	50 @ 1000 MHz	4800	0.080	800	Yellow
0805HT-9N1TJE_	9.1 @ 250 MHz	<b>5</b>	54 @ 1000 MHz	3900	0.105	800	Red
0805HT-10NT_E_	10 @ 250 MHz	<b>5,2</b>	55 @ 750 MHz	3300	0.080	800	Green
0805HT-12NT_E_	12 @ 250 MHz	<b>5,2</b>	55 @ 750 MHz	3800	0.10	800	Blue
0805HT-15NT_E_	15 @ 250 MHz	<b>5,2</b>	50 @ 500 MHz	2950	0.10	800	Violet
0805HT-18NT_E_	18 @ 250 MHz	<b>5,2</b>	50 @ 500 MHz	3100	0.13	800	Gray
0805HT-20NT_E_	20 @ 250 MHz	<b>5,2</b>	50 @ 500 MHz	2700	0.17	800	Yellow
0805HT-22NT_E_	22 @ 250 MHz	<b>5,2</b>	50 @ 500 MHz	2900	0.15	800	White
0805HT-27NT_E_	27 @ 250 MHz	<b>5,2</b>	50 @ 500 MHz	2450	0.19	700	Black
0805HT-33NT_E_	33 @ 250 MHz	<b>5,2</b>	55 @ 500 MHz	2350	0.19	600	Brown
0805HT-39NT_E_	39 @ 250 MHz	<b>5,2</b> ,1	55 @ 500 MHz	2200	0.27	600	Red
0805HT-47NT_E_	47 @ 200 MHz	<b>5,2</b> ,1	50 @ 500 MHz	2000	0.30	600	Orange
0805HT-56NT_E_	56 @ 200 MHz	<b>5,2</b> ,1	50 @ 500 MHz	1850	0.39	500	Yellow
0805HT-68NT_E_	68 @ 200 MHz	<b>5,2</b> ,1	50 @ 500 MHz	1500	0.40	500	Green
0805HT-82NT_E_	82 @ 150 MHz	<b>5,2</b> ,1	50 @ 500 MHz	1500	0.44	500	Blue
0805HT-R10T_E_	100 @ 150 MHz	<b>5,2</b>	50 @ 500 MHz	1200	0.64	400	Violet
0805HT-R12T_E_	120 @ 150 MHz	<b>5,2</b>	40 @ 250 MHz	1150	0.68	300	Gray
0805HT-R15T_E_	150 @ 150 MHz	<b>5,2</b>	40 @ 250 MHz	1050	0.80	300	White
0805HT-R18T_E_	180 @ 150 MHz	<b>5,2</b>	40 @ 250 MHz	830	0.86	300	Black
0805HT-R22T_E_	220 @ 150 MHz	<b>5,2</b>	39 @ 150 MHz	820	1.29	200	Orange
0805HT-R27T_E_	270 @ 150 MHz	<b>5,2</b>	33 @ 150 MHz	790	1.40	200	Yellow
0805HT-R33T_E_	330 @ 150 MHz	<b>5,2</b>	32 @ 150 MHz	730	1.93	200	Green
0805HT-R39T_E_	390 @ 100 MHz	<b>5,2</b>	30 @ 150 MHz	675	2.80	200	Blue
0805HT-R47T_E_	470 @ 100 MHz	<b>5,2</b>	30 @ 150 MHz	610	3.10	200	Violet
0805HT-R50T_E_	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-R22TGE C

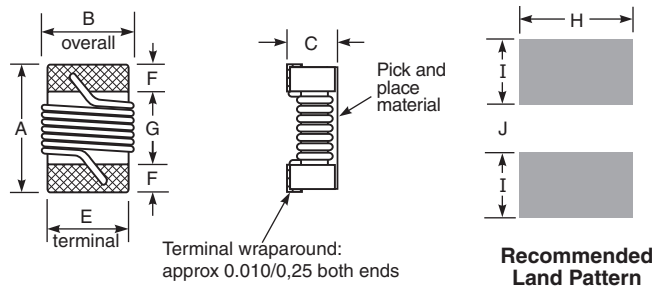
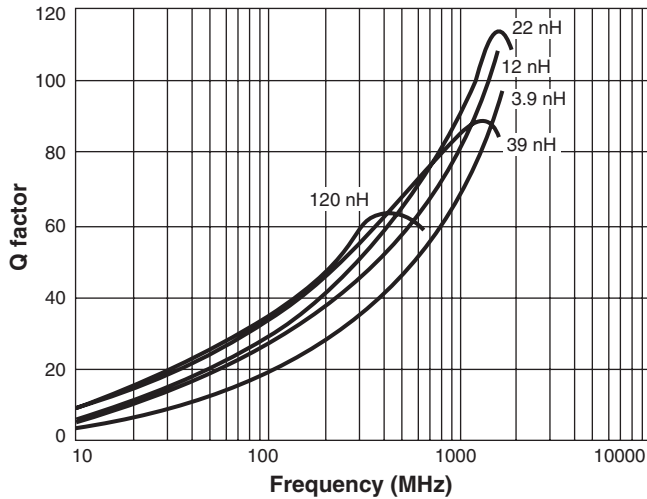
- Tolerance:** F = 1% G = 2% J = 5%  
(Table shows stock tolerances in bold.)
- Termination:** E = Halogen free component. RoHS compliant silver-palladium-platinum-glass frit terminations.  
L = RoHS compliant, not halogen-free. Silver-palladium-platinum-glass frit terminations.  
R = RoHS compliant matte tin over nickel over silver-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.

- Inductance measured using a Coilcraft SMD-A fixture in an Agilent/HP 4286A impedance analyzer with Coilcraft-provided correlation pieces.
  - Tolerances in bold are stocked for immediate shipment.
  - 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.
  - SRF measured using an Agilent/HP 8720D network analyzer and a Coilcraft SMD-D test fixture.
  - DCR measured on a Cambridge Technology micro-ohmmeter and a Coilcraft CCF858 test fixture.
  - 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.
  - Electrical specifications at 25°C.
- Refer to Doc 362 "Soldering Surface Mount Components" before soldering.



# 0805HT Series (2012)

## Typical Q vs Frequency

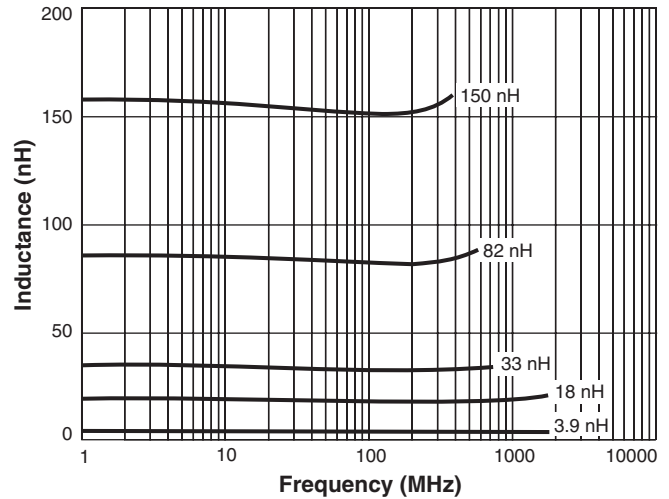


A	B	C	E	F	G	H	I	J	
max	max	max							inches
0,085	0,060	0,035	0,050	0,017	0,045	0,070	0,040	0,030	
2,16	1,52	0,89	1,27	0,43	1,14	1,78	1,02	0,76	mm

**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

## Typical L vs Frequency



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

**Core material** Ceramic

**Environmental** RoHS compliant, halogen free

**Terminations** 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 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)** +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)**

0.22 per billion hours / 4.545E+09 hours, calculated per Telcordia SR-332

**Packaging** 2000/7" reel; 7500/13" reel; Plastic tape: 8 mm wide, 0.23 mm thick, 4 mm pocket spacing, 0.9 mm pocket depth

**PCB washing** Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787\\_PCB\\_Washing.pdf](#).



**US** +1-847-639-6400 sales@coilcraft.com  
**UK** +44-1236-730595 sales@coilcraft-europe.com  
**Taiwan** +886-2-2264 3646 sales@coilcraft.com.tw  
**China** +86-21-6218 8074 sales@coilcraft.com.cn  
**Singapore** + 65-6484 8412 sales@coilcraft.com.sg

Document 168-2 Revised 05/10/21

© Coilcraft Inc. 2021  
 This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.

**COILCRAFT** ACCURATE  
**PRECISION** REPEATABLE  
 MEASUREMENTS  
**TEST FIXTURES**  
 SEE WEB SITE