



# 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><br>(nH) | Percent<br>tolerance <sup>3</sup> | Q min <sup>4</sup> | SRF min <sup>5</sup><br>(MHz) | DCR max <sup>6</sup><br>(Ohms) | Irms <sup>7</sup><br>(mA) | Color<br>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-R22TGLC**

**Termination:** **L** = RoHS compliant silver-palladium-platinum-glass frit.  
**E** = Halogen free component. RoHS compliant silver-palladium-platinum-glass frit terminations.

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.



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

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

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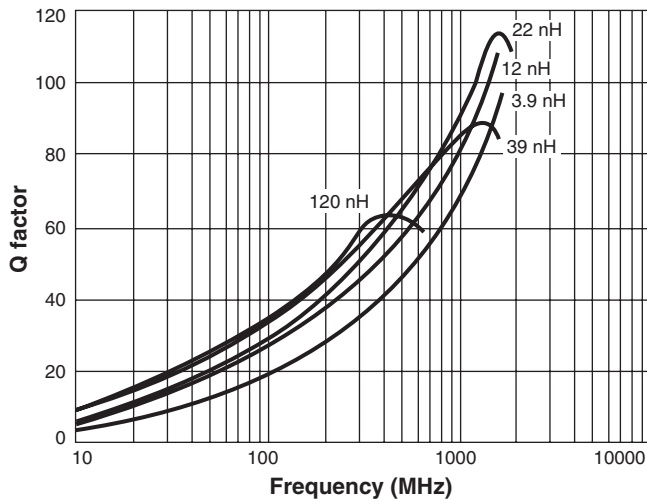
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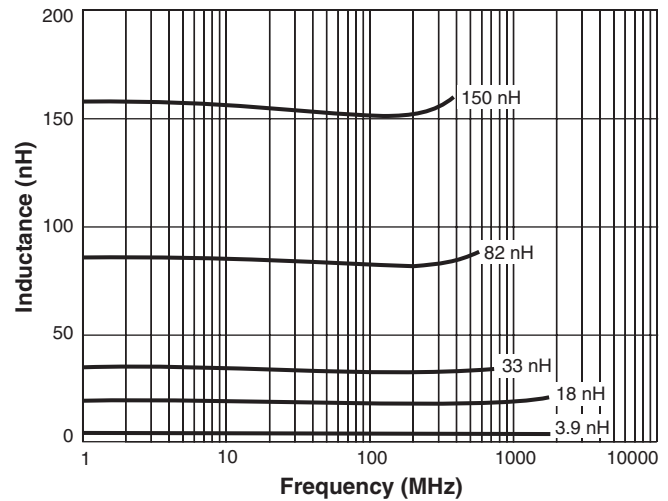


# 0805HT Series (2012)

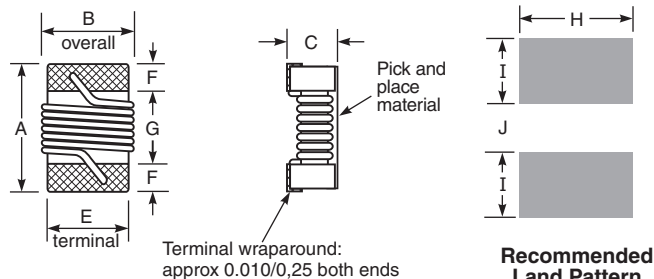
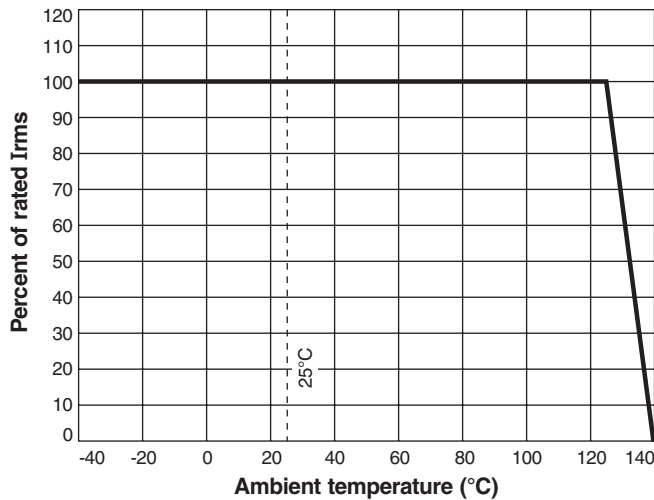
## Typical Q vs Frequency



## Typical L vs Frequency



## Irms Derating



| 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.

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

**Core material** Ceramic

**Environmental** RoHS compliant, halogen free optional

**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 Irms 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

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**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

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Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

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- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.