Chip Inductors – 0805HT (2012)

RoHS COMPLIANT

Halogen Free

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[1]	Inductance[2] (nH)	Percent tolerance[3]	Q min[4]	SRF min[5] (MHz)	DCR max[6] (Ohms)	Irms[7] (mA)	Color Code
0805HT-1N8TJE_	1.8 @ 250 MHz	**5**	55 @ 1500 MHz	9400	0.030	800	Black
0805HT-2N0TJE_	2.0 @ 250 MHz	**5**	55 @ 1500 MHz	11500	0.018	800	Violet
0805HT-3N9TJE_	3.9 @ 250 MHz	**5**	50 @ 1000 MHz	6100	0.055	800	Brown
0805HT-4N3TJE_	4.3 @ 250 MHz	**5**	80 @ 1000 MHz	6364	0.030	800	White
0805HT-4N7TJE_	4.7 @ 250 MHz	**5**	50 @ 1000 MHz	5500	0.060	800	Red
0805HT-5N1TJE_	5.1 @ 250 MHz	**5**	45 @ 1000 MHz	6100	0.069	800	Blue
0805HT-5N6TJE_	5.6 @ 250 MHz	**5**	45 @ 1000 MHz	5800	0.091	800	Gray
0805HT-6N8TJE_	6.8 @ 250 MHz	**5**	50 @ 1000 MHz	4800	0.080	800	Orange
0805HT-7N5TJE_	7.5 @ 250 MHz	**5**	47 @ 1000 MHz	4600	0.082	800	Black
0805HT-8N2TJE_	8.2 @ 250 MHz	**5**	50 @ 1000 MHz	4800	0.080	800	Yellow
0805HT-9N1TJE_	9.1 @ 250 MHz	**5**	54 @ 1000 MHz	3900	0.105	800	Red
0805HT-10NT_E_	10 @ 250 MHz	**5,2**	55 @ 750 MHz	3300	0.080	800	Green
0805HT-12NT_E_	12 @ 250 MHz	**5,2**	55 @ 750 MHz	3800	0.10	800	Blue
0805HT-15NT_E_	15 @ 250 MHz	**5,2**	50 @ 500 MHz	2950	0.10	800	Violet
0805HT-18NT_E_	18 @ 250 MHz	**5,2**	50 @ 500 MHz	3100	0.13	800	Gray
0805HT-20NT_E_	20 @ 250 MHz	**5,2**	50 @ 500 MHz	2700	0.17	800	Yellow
0805HT-22NT_E_	22 @ 250 MHz	**5,2**	50 @ 500 MHz	2900	0.15	800	White
0805HT-27NT_E_	27 @ 250 MHz	**5,2**	50 @ 500 MHz	2450	0.19	700	Black
0805HT-33NT_E_	33 @ 250 MHz	**5,2**	55 @ 500 MHz	2350	0.19	600	Brown
0805HT-39NT_E_	39 @ 250 MHz	**5,2**,1	55 @ 500 MHz	2200	0.27	600	Red
0805HT-47NT_E_	47 @ 200 MHz	**5,2**,1	50 @ 500 MHz	2000	0.30	600	Orange
0805HT-56NT_E_	56 @ 200 MHz	**5,2**,1	50 @ 500 MHz	1850	0.39	500	Yellow
0805HT-68NT_E_	68 @ 200 MHz	**5,2**,1	50 @ 500 MHz	1500	0.40	500	Green
0805HT-82NT_E_	82 @ 150 MHz	**5,2**,1	50 @ 500 MHz	1500	0.44	500	Blue
0805HT-R10T_E_	100 @ 150 MHz	**5,2**	50 @ 500 MHz	1200	0.64	400	Violet
0805HT-R12T_E_	120 @ 150 MHz	**5,2**	40 @ 250 MHz	1150	0.68	300	Gray
0805HT-R15T_E_	150 @ 150 MHz	**5,2**	40 @ 250 MHz	1050	0.80	300	White
0805HT-R18T_E_	180 @ 150 MHz	**5,2**	40 @ 250 MHz	830	0.86	300	Black
0805HT-R22T_E_	220 @ 150 MHz	**5,2**	39 @ 150 MHz	820	1.29	200	Orange
0805HT-R27T_E_	270 @ 150 MHz	**5,2**	33 @ 150 MHz	790	1.40	200	Yellow
0805HT-R33T_E_	330 @ 150 MHz	**5,2**	32 @ 150 MHz	730	1.93	200	Green
0805HT-R39T_E_	390 @ 100 MHz	**5,2**	30 @ 150 MHz	675	2.80	200	Blue
0805HT-R47T_E_	470 @ 100 MHz	**5,2**	30 @ 150 MHz	610	3.10	200	Violet
0805HT-R50T_E_	500 @ 50 MHz	**5,2**	20 @ 50 MHz	585	3.20	200	Gray

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

0805HT-R22TGEC

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.
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. 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.

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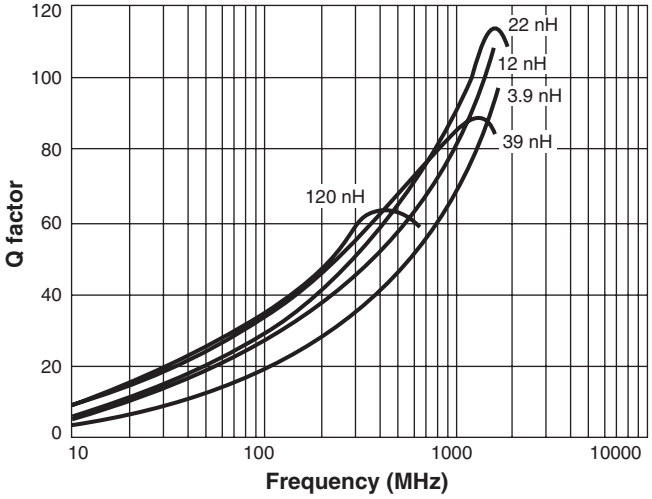
S-Parameter files
ON OUR WEB SITE

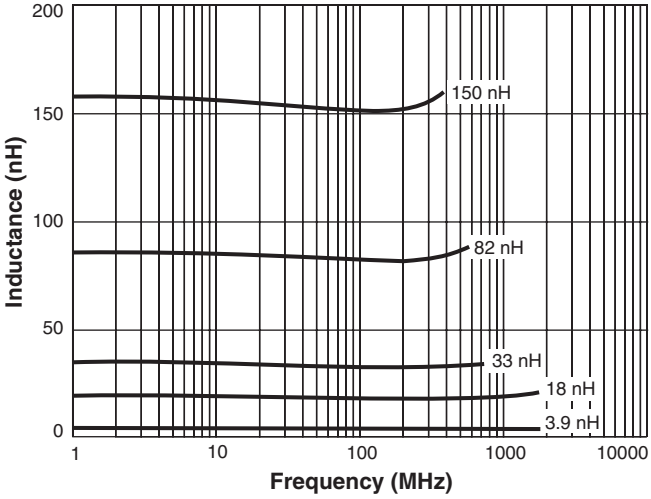
SPICE models
ON OUR WEB SITE

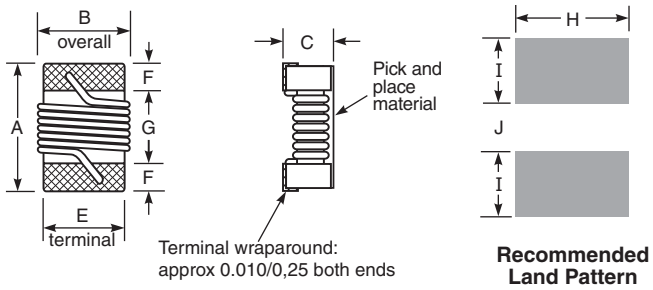
0805HT Series (2012)

Typical Q vs Frequency



Typical L vs Frequency





A max	B max	C max	E	F	G	H	I	J	
0.085	0.060	0.035	0.050	0.017	0.045	0.070	0.040	0.030	inches
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

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)
One per billion hours / one billion 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.

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