Chip Inductor – 1008HT Series (2520)

- Low-profile inductors are 60% the height of our other 1008 size parts.
- They feature high SRFs and very high Q factors.

Coilcraft **Designer's Kit C322** contains samples of all 5% inductance tolerance parts. To order, please contact Coilcraft or order on-line at **http://order.coilcraft.com**.

Part number[1]	Inductance[2] (nH)	Percent tolerance[3]	Q min[4]	SRF min[5] (MHz)	DCR max[6] (Ohms)	Irms[7] (mA)
1008HT-3N3TJL_	3.3 @ 250 MHz	**5**	65 @ 1500 MHz	7900	0.025	1000
1008HT-6N8TJL_	6.8 @ 250 MHz	**5**	70 @ 1500 MHz	5500	0.05	1000
1008HT-7N2TJL_	7.2 @ 250 MHz	**5**	70 @ 1500 MHz	4800	0.05	1000
1008HT-12NTJL_	12 @ 250 MHz	**5**	55 @ 700 MHz	3800	0.065	1000
1008HT-15NTJL_	15 @ 250 MHz	**5**	55 @ 700 MHz	2800	0.08	1000
1008HT-18NTJL_	18 @ 250 MHz	**5**	55 @ 500 MHz	3000	0.09	1000
1008HT-22NTJL_	22 @ 250 MHz	**5**	55 @ 500 MHz	2600	0.11	950
1008HT-27NT_L_	27 @ 250 MHz	**5,2**	55 @ 500 MHz	2400	0.13	850
1008HT-33NT_L_	33 @ 200 MHz	**5,2**	55 @ 350 MHz	2000	0.135	760
1008HT-39NT_L_	39 @ 200 MHz	**5,2**	55 @ 350 MHz	1900	0.17	700
1008HT-47NT_L_	47 @ 200 MHz	**5,2**,1	55 @ 350 MHz	1500	0.18	660
1008HT-56NT_L_	56 @ 150 MHz	**5,2**,1	50 @ 300 MHz	1500	0.18	620
1008HT-68NT_L_	68 @ 150 MHz	**5,2**,1	50 @ 300 MHz	1500	0.23	550
1008HT-82NT_L_	82 @ 150 MHz	**5,2**,1	40 @ 250 MHz	1300	0.35	500
1008HT-R10T_L_	100 @ 100 MHz	**5,2**,1	40 @ 250 MHz	1200	0.64	420
1008HT-R12T_L_	120 @ 100 MHz	**5,2**,1	40 @ 200 MHz	1090	0.55	350
1008HT-R14T_L_	140 @ 100 MHz	**5,2**,1	40 @ 200 MHz	1100	0.70	320
1008HT-R15T_L_	150 @ 100 MHz	**5,2**,1	40 @ 200 MHz	960	0.75	300
1008HT-R18T_L_	180 @ 50 MHz	**5,2**,1	40 @ 200 MHz	920	1.02	250
1008HT-R22T_L_	220 @ 50 MHz	**5,2**,1	34 @ 100 MHz	750	1.15	250
1008HT-R24T_L_	240 @ 50 MHz	**5,2**	32 @ 100 MHz	800	1.15	250
1008HT-R27T_L_	270 @ 50 MHz	**5,2**	32 @ 100 MHz	770	1.25	250
1008HT-R33T_L_	330 @ 25 MHz	**5,2**	32 @ 100 MHz	635	1.35	250
1008HT-R39T_L_	390 @ 25 MHz	**5,2**	32 @ 100 MHz	555	1.45	250
1008HT-R47T_L_	470 @ 25 MHz	**5,2**	32 @ 100 MHz	530	1.65	240
1008HT-R56T_L_	560 @ 25 MHz	**5,2**	32 @ 100 MHz	485	1.90	240

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

1008HT-R56TJLC

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 CCF840 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.

See Color Coding section for part marking data.

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

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S-Parameter files
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SPICE models
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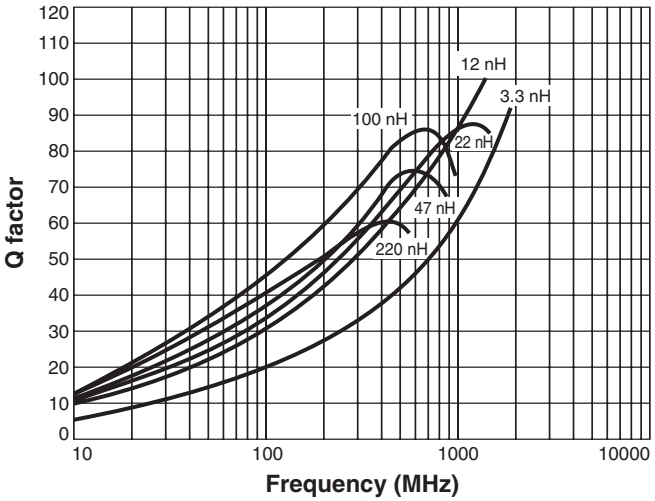
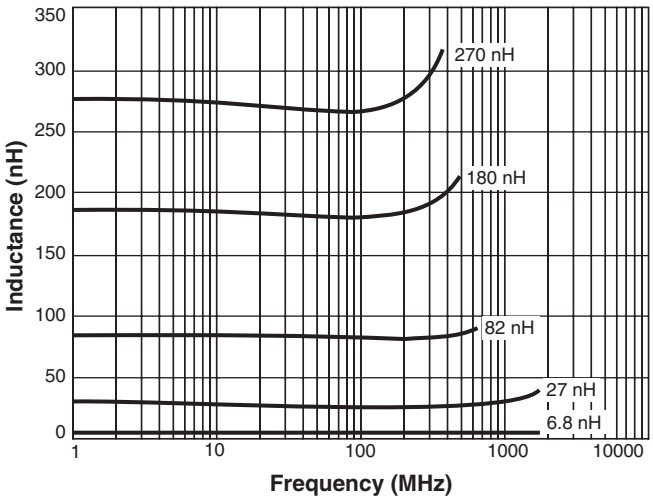
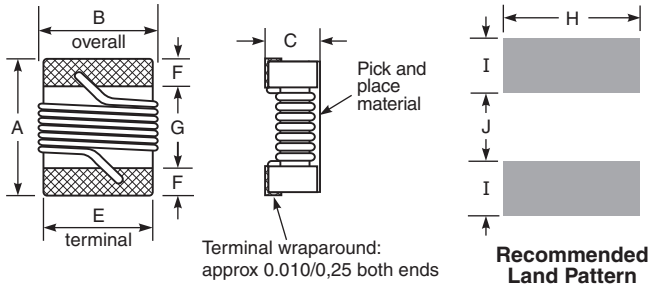
Chip Inductor – 1008HT Series (2520)

Typical Q vs Frequency



Typical L vs Frequency





A max	B max	C max	E	F	G	H	I	J	
0.105	0.095	0.045	0.080	0.020	0.060	0.100	0.040	0.050	inches
2,67	2,41	1,14	2,03	0,51	1,52	2,54	1,02	1,27	mm

Note: Height dimension is before optional solder application. For maximum height dimension including solder, add 0.006 in / 0,152 mm.

Core material Ceramic

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

Weight 16.0 – 17.6 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, 1.14 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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1008HT-R15TJLB 1008HT-R27TJLB 1008HT-R14TGLC 1008HT-R56TGLC 1008HT-15NTJLC 1008HT-47NTGLC 1008HT-R33TGLC 1008HT-27NTGLB 1008HT-56NTJLB 1008HT-R12TJLC 1008HT-R24TJLC 1008HT-R24TGLB 1008HT-12NTJLB 1008HT-R22TGLC 1008HT-33NTGLB 1008HT-39NTJLC 1008HT-R39TJLB 1008HT-7N2TJLC 1008HT-33NTJLC 1008HT-22NTJLC 1008HT-82NTGLC 1008HT-6N8TJLC 1008HT-R18TGLB 1008HT-R39TGLB 1008HT-R10TJLB 1008HT-68NTJLB 1008HT-27NTJLC 1008HT-R47TJLB 1008HT-3N3TJLB 1008HT-R24TGLC 1008HT-3N3TJLC 1008HT-R47TJLC 1008HT-R15TGLB 1008HT-22NTJLB 1008HT-R12TGLC 1008HT-18NTJLB 1008HT-R39TJLC 1008HT-R27TGLB 1008HT-R33TJLB 1008HT-68NTJLC 1008HT-R47TGLC 1008HT-R10TJLC 1008HT-R14TJLC 1008HT-R22TJLC 1008HT-47NTJLB 1008HT-R47TGLB 1008HT-R56TGLB 1008HT-15NTJLB 1008HT-R22TJLB 1008HT-56NTGLC 1008HT-R15TJLC 1008HT-R14TGLB 1008HT-R22TGLB 1008HT-39NTJLB 1008HT-R12TJLB 1008HT-R56TJLC 1008HT-47NTGLB 1008HT-7N2TJLB 1008HT-33NTJLB 1008HT-R56TJLB 1008HT-R33TGLB 1008HT-R39TGLC 1008HT-12NTJLC 1008HT-6N8TJLB 1008HT-33NTGLC 1008HT-R15TGLC 1008HT-R18TGLC 1008HT-27NTGLC 1008HT-82NTJLC 1008HT-39NTGLC 1008HT-68NTGLC 1008HT-R10TGLC 1008HT-R27TGLC 1008HT-82NTGLB 1008HT-18NTJLC 1008HT-R10TGLB 1008HT-R24TJLB 1008HT-R33TJLC 1008HT-R18TJLC 1008HT-R14TJLB 1008HT-R27TJLC 1008HT-56NTGLB 1008HT-27NTJLB 1008HT-R18TJLB 1008HT-47NTJLC 1008HT-39NTGLB 1008HT-R12TGLB 1008HT-82NTJLB 1008HT-56NTJLC 1008HT-68NTGLB