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-3N3T_L_	3.3 @ 250 MHz	**5**	65 @ 1500 MHz	7900	0.025	1000
1008HT-6N8T_L_	6.8 @ 250 MHz	**5**	70 @ 1500 MHz	5500	0.05	1000
1008HT-7N2T_L_	7.2 @ 250 MHz	**5**	70 @ 1500 MHz	4800	0.05	1000
1008HT-12NT_L_	12 @ 250 MHz	**5**	55 @ 700 MHz	3800	0.065	1000
1008HT-15NT_L_	15 @ 250 MHz	**5**	55 @ 700 MHz	2800	0.08	1000
1008HT-18NT_L_	18 @ 250 MHz	**5**	55 @ 500 MHz	3000	0.09	1000
1008HT-22NT_L_	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-R56T J L C

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.
8. Electrical specifications at 25°C.

See Qualification Standards section for environmental and test data.
See Color Coding section for part marking data.
Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

1102 Silver Lake Road Cary, Illinois 60013 **Phone** 847/639-6400 **Fax** 847/639-1469
E-mail info@coilcraft.com **Web** http://www.coilcraft.com

S-Parameter files
ON OUR WEB SITE OR CD

SPICE models
ON OUR WEB SITE OR CD

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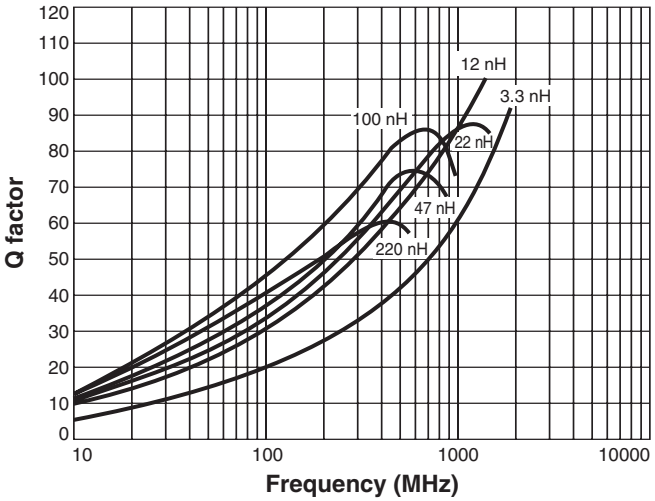
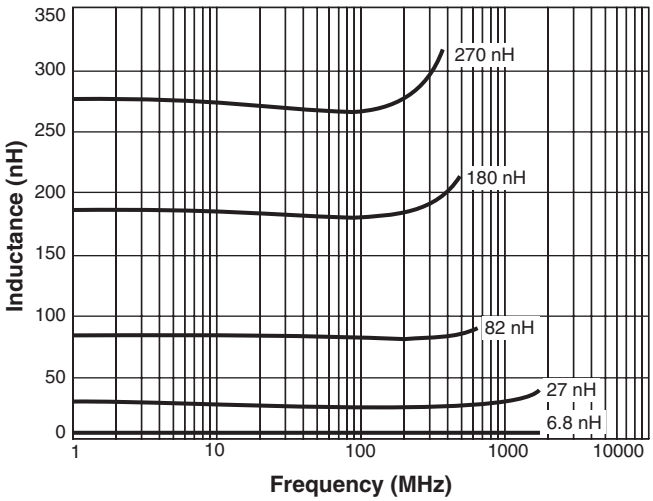
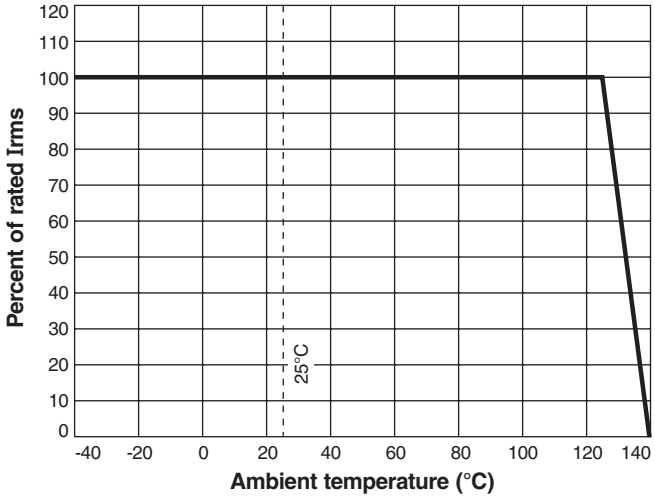
Typical Q vs Frequency



Typical L vs Frequency



Irms Derating



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, +125°C to +140°C with derated current

Storage temperature Component: –40°C to +140°C. Packaging: –55°C to +80°C

Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

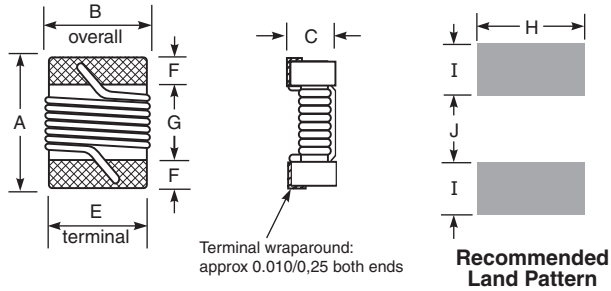
Temperature Coefficient of Inductance (TCL) +25 to +125 ppm/°C

Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)

Mean Time Between Failures (MTBF) 1 billion hours

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 Only pure water or alcohol recommended



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

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