

### Features

1. Coil body of ceramic or ferrite material according to inductance value.
2. Two solderable metallized terminations of Ag/Pd/Pt.
3. Wound with lacquer-coated copper wire.
4. Wire ends welded onto the terminations.
5. Lead Free (RoHS Compliance).

### Applications

1. RF technique
2. Antenna Amplifiers Tuners, Base Stations or SAT Receivers

### Ordering Information

<b>5503</b>	<b>270</b>	<b>*</b>	<b>*</b>	<b>**</b>
(1)	(2)	(3)	(4)	(5)

#### (1) Series

- 5503: Size 1206(3216)

#### (2) Inductance Value

example: 27x10<sup>x</sup> = 27x10<sup>0</sup> = 27(nH)

#### (3) Inductance Tolerance

- |          |                       |
|----------|-----------------------|
| 1 : ±20% | 4 : ±2%               |
| 2 : ±10% | 9 : special tolerance |
| 3 : ±5%  |                       |

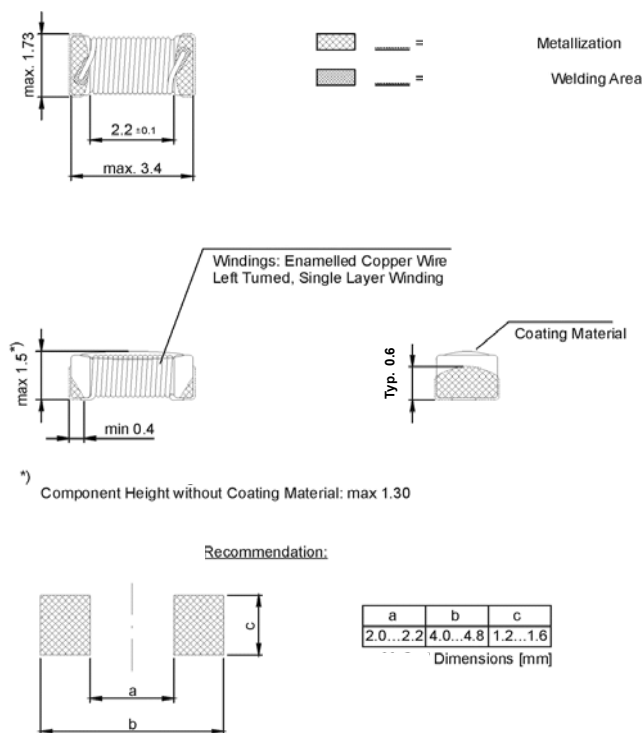
#### (4) Delivery Form

- 2: standard , tape & reel
- 4 : coated, tape & reel

#### (5) Packing unit tape & reel

- 00 : reels Φ180mm, 3,000 pcs.
- 03 : reels Φ330mm, 10,000 pcs.
- 05 : reels Φ180mm, 500 pcs.

### Shape and Dimensions (mm)



\*All specifications are subject to change without notice.

### Electrical Parameters

Order No.	L [nH]	Q <sub>min</sub>	f <sub>L,Q</sub> [MHz]	f <sub>res,min</sub> [MHz]	D.C.R. ,max [mΩ ]	I <sub>N,max</sub> [mA]	Tol. [%]
5503 030 ** **	3,3	30	100	> 5000	40	1000	10/20
5503 060 ** **	6,8	30	100	> 5000	50	1000	10/20
5503 120 ** **	12	30	100	4000	80	1000	10/20
5503 150 ** **	15	30	100	3200	80	1000	5/10/20
5503 180 ** **	18	35	100	2800	80	1000	5/10/20
5503 220 ** **	22	35	100	2300	100	1000	5/10/20
5503 270 ** **	27	40	100	2000	110	1000	5/10/20
5503 330 ** **	33	40	100	1900	130	1000	5/10/20
5503 390 ** **	39	40	100	1800	130	1000	5/10/20
5503 470 ** **	47	40	100	1400	230	1000	5/10/20
5503 560 ** **	56	35	100	1400	230	840	2/ 5/10/20
5503 680 ** **	68	40	100	1300	210	570	2/ 5/10/20
5503 820 ** **	82	40	100	1200	230	660	2/5/10/20
5503 101 ** **	100	40	100	1100	290	660	2/5/10/20
5503 121 ** **	120	40	100	1000	300	570	2/5/10/20
5503 151 ** **	150	45	100	970	400	530	2/5/10/20
5503 181 ** **	180	35	50	880	470	450	2/5/10/20
5503 221 ** **	220	35	50	850	500	430	2/5/10/20
5503 271 ** **	270	35	50	800	620	420	2/5/10/20
5503 331 ** **	330	35	50	710	820	410	2/5/10/20
5503 391 ** **	390	35	50	650	1100	410	2/5/10/20
5503 471 ** **	470	35	50	640	1300	290	2/5/10/20
5503 561 ** **	560	30	35	560	1500	280	2/5/10/20
5503 681 ** **	680	30	35	540	1800	270	2/5/10/20
5503 821 ** **	820	30	35	470	2800	260	2/5/10/20
5503 102 ** **	1000	30	35	450	2700	230	2/5/10/20
5503 122 ** **	1200	30	35	430	3200	220	2/5/10/20
5503 152 ** **	1500	25	7,9	260	1200	320	2/5/10/20
5503 182 ** **	1800	25	7,9	250	1200	320	2/5/10/20
5503 222 ** **	2200	25	7,9	240	1300	300	2/5/10/20
5503 272 ** **	2700	25	7,9	230	1400	300	2/5/10/20
5503 332 ** **	3300	25	7,9	200	1500	280	2/5/10/20
5503 392 ** **	3900	25	7,9	190	1900	280	2/5/10/20
5503 472 ** **	4700	25	7,9	170	2200	280	2/5/10/20
5503 562 ** **	5600	25	7,9	160	2400	260	2/5/10/20
5503 682 ** **	6800	25	7,9	150	2800	240	2/5/10/20
5503 822 ** **	8200	25	7,9	130	3100	220	2/5/10/20
5503 103 ** **	10000	25	7,9	120	4000	200	2/5/10/20
5503 123 ** **	12000	18	2,5	110	4600	200	2/5/10/20
5503 153 ** **	15000	16	2,5	100	8200	160	2/5/10/20
5503 183 ** **	18000	16	2,5	95	9000	130	2/5/10/20

Ceramic

Ferrite

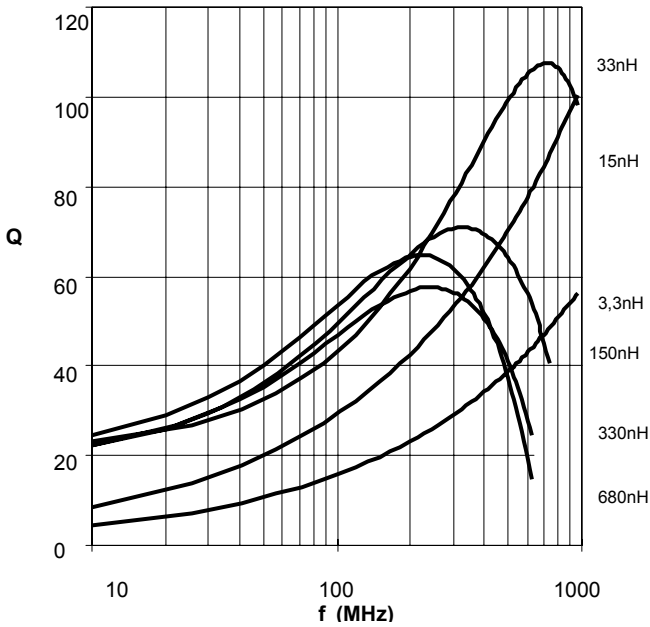
All values up to 1200 nH on ceramic core – from 1500 nH on ferrite core.

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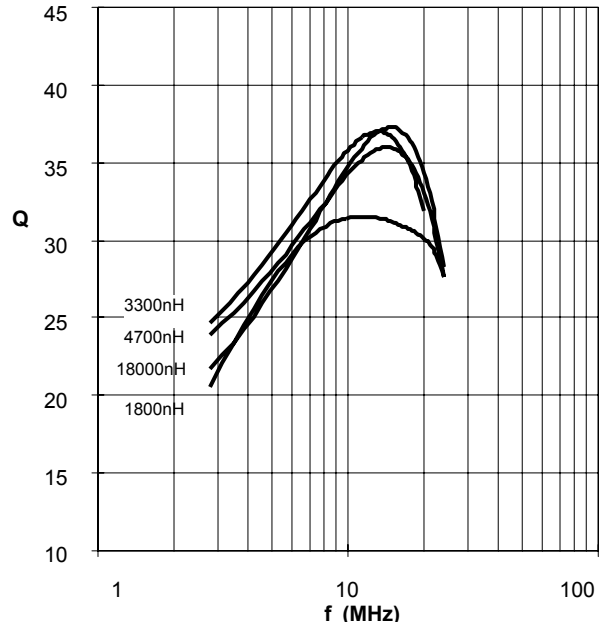
## Electrical Characteristic Curves

### Typical Q factor vs frequency

Coil on ceramic body

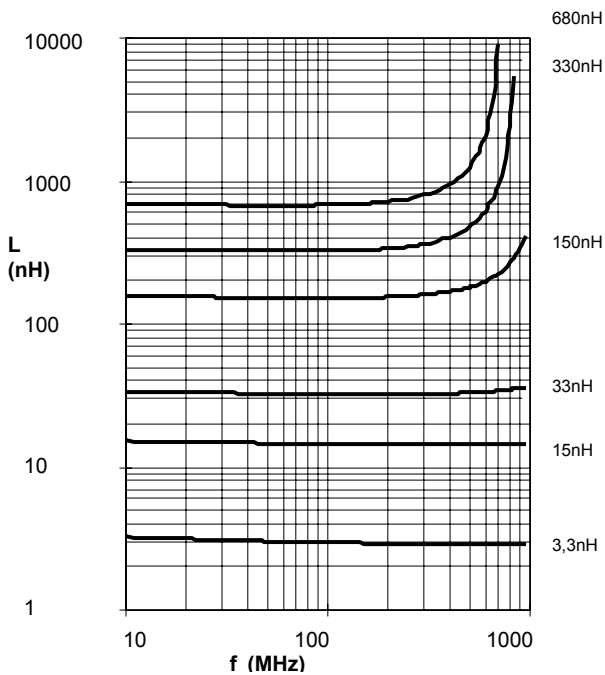


Coil on ferrite body

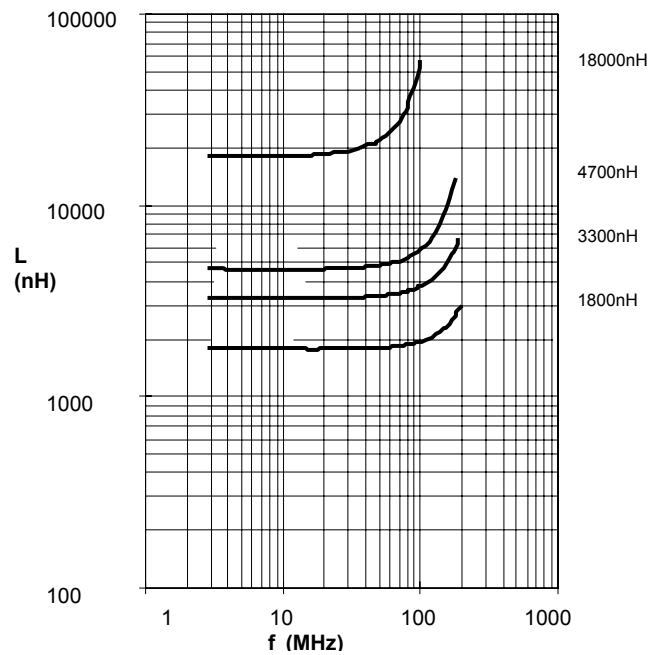


### Typical Inductance vs. frequency

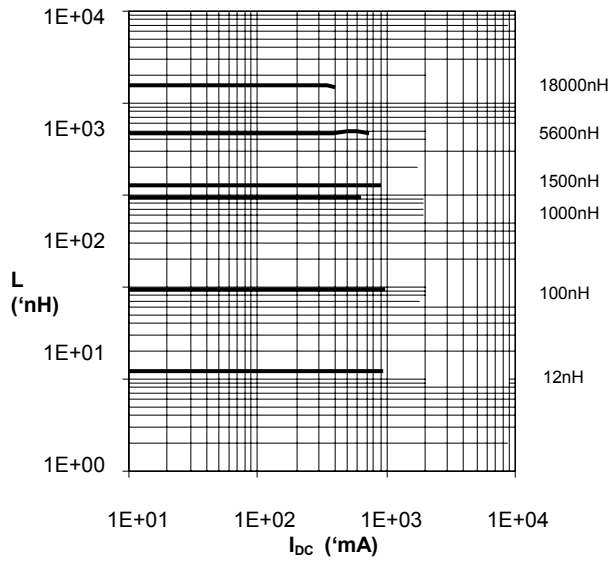
Coil on ceramic body



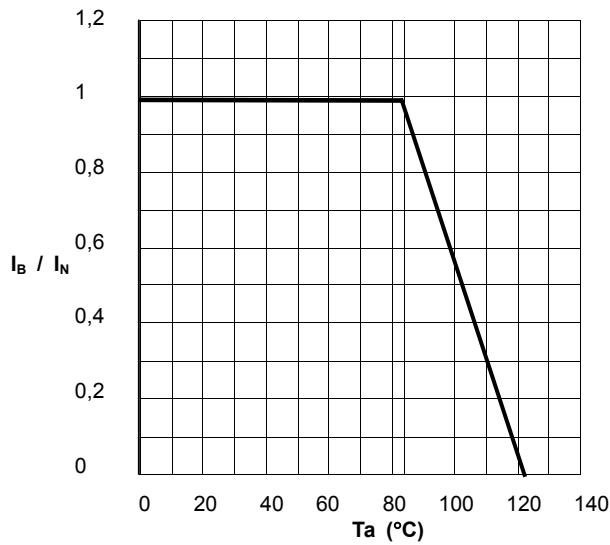
Coil on ferrite body



**Inductance L in dependence of direct current  $I_{DC}$**



**Current-carrying capacity  $I_{OP}/I_R$  in dependence of the ambient temperature  $T_a$**



Test equipment: Inductance and Q: Agilent 42286A + 16093A.  
 Resonant Frequency: Agilent 8753E.  
 D.C.R. : Burst Resistomat 2329.(at 20°C)