

Features

1. Coil body of ceramic material.
2. Rugged inductance even in high frequencies.
3. Tight tolerances.
4. Low DC resistance.
5. Operating temperature range -40°C to $+85^{\circ}\text{C}$
6. Lead Free (RoHS Compliance)

Applications

1. Antenna amplifier.
2. Mobile phones (GSM etc.)
3. Global Positioning Systems (GPS)
4. Digital cameras.
5. HDD (Hard Disk Drivers) etc.

Ordering Information

5524	270	*	452
(1)	(2)	(3)	

(1) Series

- 5524 Size 0402C(1005), Ceramic body

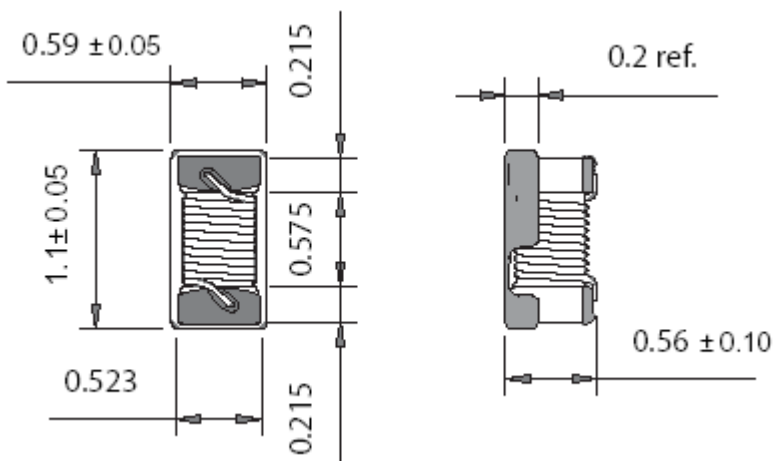
(3) Inductance Tolerance

- 2 : $\pm 10\%$
- 3 : $\pm 5\%$
- 4 : $\pm 2\%$

(2) Inductance Value

example: $27 \times 10^x = 27 \times 10^0 = 27(\text{nH})$

Shape and Dimensions (mm)



Pad Layout Recommendation
Electrode: Mo/Mn/Ni/Sn

Electrical Parameters

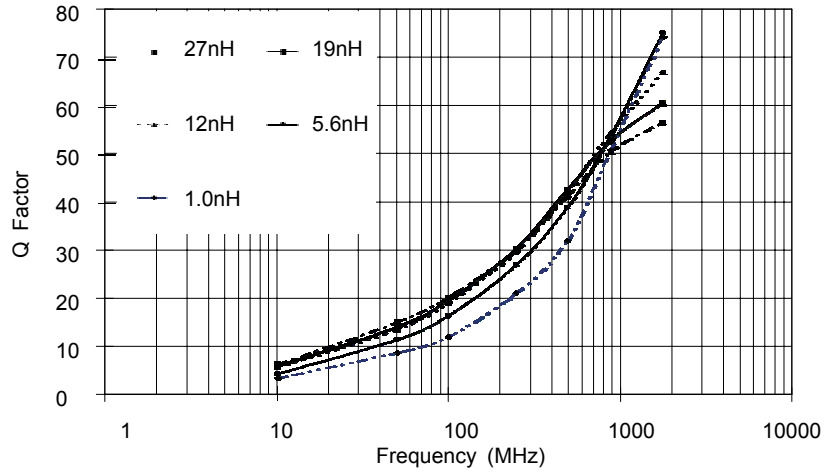
Order No.	L	Q _{min}	f _{L, Q}	Q _{typ.}	f _{res, min}	D.C.R. max.	I _{DC, max}	Tol.
	[nH]		[MHz]	@ 900 MHz	[MHz]	[Ω]	[mA]	[%]
5524 010 *4 52	1.0	16.0	250	35	12700	0.045	1360	5/10
5524 019 *4 52	1.9	16.0	250	45	11300	0.070	1040	5/10
5524 020 *4 52	2.0	16.0	250	45	11100	0.070	1040	5/10
5524 022 *4 52	2.2	19.0	250	46	10800	0.070	960	5/10
5524 024 *4 52	2.4	15.0	250	41	10500	0.068	790	5/10
5524 027 *4 52	2.7	16.0	250	40	10400	0.120	640	5/10
5524 033 *4 52	3.3	19.0	250	47	7000	0.066	840	5/10
5524 036 *4 52	3.6	19.0	250	54	6800	0.066	840	5/10
5524 039 *4 52	3.9	19.0	250	56	6000	0.066	840	5/10
5524 043 *4 52	4.3	18.0	250	47	6000	0.091	700	5/10
5524 047 *4 52	4.7	15.0	250	45	4770	0.130	640	5/10
5524 051 *4 52	5.1	20.0	250	51	4800	0.083	800	5/10
5524 056 *4 52	5.6	20.0	250	57	4800	0.083	760	5/10
5524 062 *4 52	6.2	20.0	250	54	4800	0.083	760	5/10
5524 068 *4 52	6.8	20.0	250	53	4800	0.083	680	5/10
5524 075 *4 52	7.5	22.0	250	56	4800	0.100	680	2/5/10
5524 082 *4 52	8.2	22.0	250	56	4400	0.100	680	2/5/10
5524 087 *4 52	8.7	18.0	250	55	4100	0.200	480	2/5/10
5524 090 *4 52	9.0	22.0	250	57	4160	0.100	680	2/5/10
5524 095 *4 52	9.5	18.0	250	54	4000	0.200	480	2/5/10
5524 100 *4 52	10.0	21.0	250	53	3900	0.200	480	2/5/10
5524 110 *4 52	11.0	24.0	250	54	3680	0.120	640	2/5/10
5524 120 *4 52	12.0	24.0	250	57	3600	0.120	640	2/5/10
5524 130 *4 52	13.0	24.0	250	55	3450	0.210	440	2/5/10
5524 150 *4 52	15.0	24.0	250	57	3280	0.170	560	2/5/10
5524 160 *4 52	16.0	24.0	250	55	3100	0.220	560	2/5/10
5524 180 *4 52	18.0	24.0	250	57	3100	0.230	420	2/5/10
5524 190 *4 52	19.0	24.0	250	55	3040	0.200	480	2/5/10
5524 200 *4 52	20.0	25.0	250	54	3000	0.250	420	2/5/10
5524 220 *4 52	22.0	25.0	250	55	2800	0.300	400	2/5/10
5524 230 *4 52	23.0	22.0	250	55	2720	0.300	400	2/5/10
5524 240 *4 52	24.0	25.0	250	54	2700	0.300	400	2/5/10
5524 270 *4 52	27.0	24.0	250	55	2480	0.300	400	2/5/10
5524 300 *4 52	30.0	25.0	250	54	2350	0.300	400	2/5/10
5524 330 *4 52	33.0	24.0	250	51	2350	0.300	400	2/5/10
5524 360 *4 52	36.0	24.0	250	50	2320	0.440	320	2/5/10
5524 390 *4 52	39.0	25.0	250	52	2100	0.550	200	2/5/10
5524 400 *4 52	40.0	24.0	250	52	2240	0.440	320	2/5/10
5524 430 *4 52	43.0	25.0	250	52	2030	0.810	100	2/5/10
5524 470 *4 52	47.0	20.0	250	52	2100	0.830	150	2/5/10
5524 510 *4 52	51.0	22.0	250	52	1750	0.820	100	2/5/10
5524 560 *4 52	56.0	22.0	250	53	1760	0.970	100	2/5/10
5524 680 *4 52	68.0	22.0	250	52	1620	1.120	100	2/5/10
5524 820 *4 52	82.0	20.0	250	51	2000	2.240	100	5/10
5524 101 *4 52	100.0	20.0	250	30	1100	2.520	120	5/10
5524 121 *4 52	120.0	20.0	250	20	1000	2.660	110	5/10

※ Packing Unit: 3,000 pcs. each

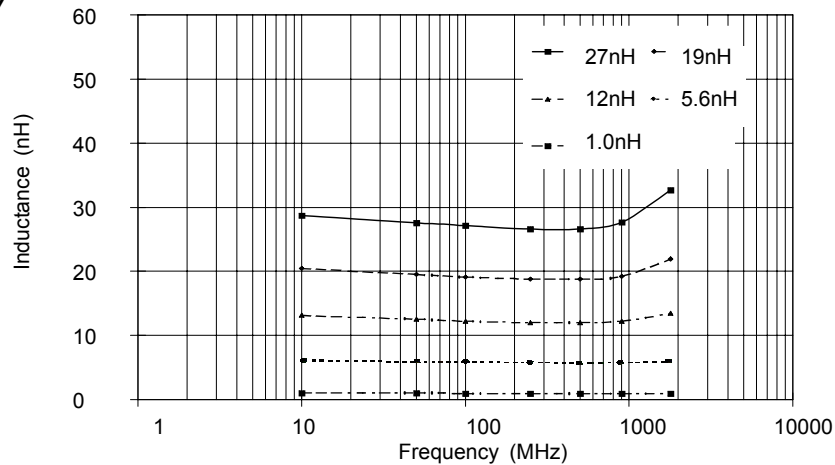
*All specifications are subject to change without notice.

Electrical Characteristic Curves

Typical Q vs. Frequency



Typical L vs Frequency



Test Equipment

Inductance and Quality Factor
 RF LCR Meter: Agilent 4287 A
 Test Fixture: Agilent 16193 A or equivalent

Resonant Frequency
 Network Analyzer: Agilent 8720 ES or equivalent

R_{DC}
 Measured at 25 °C ambient temperature
 Digital Multimeter: Agilent 34420A or equivalent

Max. Permissible Direct Current: At 25 °C ambient temperature permissible temperature rise: 20 K