











# WL Series — Wire Wound Chip Inductor

## Standard Electrical Specifications

1206 Wire Wound Chip Inductors / Standard

Part Number	Inductance nH	Tolerance (%)	Quality Factor /min.	Self Resonant Frequency /min. (GHz)	Resistance DC/Max (Ohm)	Current DC/Max (mA)	Color Code
WL06□T6N8	6.8 @ 100MHz	10,5	30 @ 300MHz	5.50	0.07	1000	Brown
WL06□T10N	10.0 @ 100MHz	10,5	40 @ 300MHz	4.00	0.08	1000	Red
WL06□T12N	12.0 @ 100MHz	10,5	40 @ 300MHz	3.20	0.08	1000	Orange
WL06□T15N	15.0 @ 100MHz	10,5	40 @ 300MHz	3.20	0.10	1000	Yellow
WL06□T18N	18.0 @ 100MHz	10,5	50 @ 300MHz	2.80	0.10	1000	Green
WL06□T22N	22.0 @ 100MHz	10,5	50 @ 300MHz	2.20	0.10	1000	Blue
WL06□T24N	24.0 @ 100MHz	10,5	50 @ 300MHz	2.00	0.10	1000	Red
WL06□T27N	27.0 @ 100MHz	10,5,2	50 @ 300MHz	1.80	0.11	1000	Violet
WL06□T33N	33.0 @ 100MHz	10,5,2	55 @ 300MHz	1.80	0.11	1000	Gray
WL06□T39N	39.0 @ 100MHz	10,5,2	55 @ 300MHz	1.80	0.12	1000	White
WL06□T47N	47.0 @ 100MHz	10,5,2	55 @ 300MHz	1.50	0.13	1000	Black
WL06□T56N	56.0 @ 100MHz	10,5,2	55 @ 300MHz	1.45	0.14	1000	Brown
WL06□T62N	62.0 @ 100MHz	10,5,2	55 @ 300MHz	1.20	0.20	1000	Violet
WL06□T68N	68.0 @ 100MHz	10,5,2	55 @ 300MHz	1.20	0.26	950	Red
WL06□T82N	82.0 @ 100MHz	10,5,2	55 @ 300MHz	1.20	0.21	920	Orange
WL06□T91N	91.0 @ 100MHz	10,5,2	55 @ 300MHz	1.10	0.24	900	White
WL06□TR10	100 @ 100MHz	10,5,2	55 @ 300MHz	1.10	0.26	850	Yellow
WL06□TR12	120 @ 100MHz	10,5,2	55 @ 300MHz	0.75	0.26	800	Green
WL06□TR15	150 @ 100MHz	10,5,2	60 @ 300MHz	0.95	0.31	750	Blue
WL06□TR18	180 @ 50MHz	10,5,2	55 @ 300MHz	0.90	0.43	700	Violet
WL06□TR22	220 @ 50MHz	10,5,2	55 @ 300MHz	0.76	0.50	670	Gray
WL06□TR27	270 @ 50MHz	10,5,2	55 @ 300MHz	0.74	0.56	630	White
WL06□TR30	300 @ 50MHz	10,5,2	50 @ 150MHz	0.68	0.60	600	Green
WL06□TR33	330 @ 50MHz	10,5,2	45 @ 150MHz	0.65	0.62	590	Black
WL06□TR36	360 @ 50MHz	10,5,2	45 @ 150MHz	0.60	0.65	550	Blue
WL06□TR39	390 @ 50MHz	10,5,2	45 @ 150MHz	0.60	0.75	530	Brown
WL06□TR47	470 @ 50MHz	10,5,2	45 @ 150MHz	0.55	1.30	490	Red
WL06□TR56	560 @ 35MHz	10,5,2	45 @ 150MHz	0.47	1.34	460	Orange
WL06□TR62	620 @ 35MHz	10,5,2	45 @ 150MHz	0.47	1.58	460	Gray
WL06□TR68	680 @ 35MHz	10,5,2	45 @ 150MHz	0.45	1.58	430	Yellow
WL06□TR75	750 @ 35MHz	10,5,2	45 @ 150MHz	0.44	2.25	320	White
WL06□TR82	820 @ 35MHz	10,5,2	45 @ 150MHz	0.42	1.82	400	Green
WL06□TR91	910 @ 35MHz	10,5,2	45 @ 150MHz	0.41	2.95	310	Green
WL06□T1R0	1000 @ 35MHz	10,5,2	45 @ 150MHz	0.40	2.80	320	Blue
WL06□T1R2	1200 @35MHz	10,5,2	45 @ 150MHz	0.38	3.20	300	Violet

Working Temperature Range : -40 °C ~ 125 °C

# WL Series — Wire Wound Chip Inductor

## Standard Electrical Specifications

1008 Wire Wound Chip Inductors / Standard

Part Number	Inductance nH	Tolerance (%)	Quality Factor /min.	Self Resonant Frequency /min. (GHz)	Resistance DC/Max (Ohm)	Current DC/Max (mA)	Color Code
WL08□T5N6	5.6 @ 50MHz	10,5	50 @ 1500MHz	4.000	0.15	1000	Black
WL08□T10N	10 @ 50MHz	10,5,2	50 @ 500MHz	4.100	0.08	1000	Brown
WL08□T12N	12 @ 50MHz	10,5,2	50 @ 500MHz	3.300	0.09	1000	Red
WL08□T15N	15 @ 50MHz	10,5,2	50 @ 500MHz	2.500	0.11	1000	Orange
WL08□T18N	18 @ 50MHz	10,5,2	50 @ 350MHz	2.400	0.12	1000	Yellow
WL08□T22N	22 @ 50MHz	10,5,2	55 @ 350MHz	2.400	0.12	1000	Green
WL08□T24N	24 @ 50MHz	10,5,2	55 @ 350MHz	1.900	0.12	1000	Blue
WL08□T27N	27 @ 50MHz	10,5,2	55 @ 350MHz	1.600	0.13	1000	Violet
WL08□T33N	33 @ 50MHz	10,5,2	60 @ 350MHz	1.600	0.14	1000	Gray
WL08□T36N	36 @ 50MHz	10,5,2	60 @ 350MHz	1.600	0.15	1000	Orange
WL08□T39N	39 @ 50MHz	10,5,2	60 @ 350MHz	1.500	0.15	1000	White
WL08□T47N	47 @ 50MHz	10,5,2	65 @ 350MHz	1.500	0.16	1000	Black
WL08□T56N	56 @ 50MHz	10,5,2	65 @ 350MHz	1.300	0.18	1000	Brown
WL08□T62N	59 @ 50MHz	10,5,2	65 @ 350MHz	1.250	0.20	1000	Blue
WL08□T68N	68 @ 50MHz	10,5,2	65 @ 350MHz	1.300	0.20	1000	Red
WL08□T75N	75 @ 50MHz	10,5,2	60 @ 350MHz	1.100	0.21	1000	White
WL08□T82N	82 @ 50MHz	10,5,2	60 @ 350MHz	1.000	0.22	1000	Orange
WL08□TR10	100 @ 25MHz	10,5,2	60 @ 350MHz	1.000	0.56	650	Yellow
WL08□TR12	120 @ 25MHz	10,5,2	60 @ 350MHz	0.950	0.63	650	Green
WL08□TR15	150 @ 25MHz	10,5,2	45 @ 100MHz	0.850	0.70	580	Blue
WL08□TR18	180 @ 25MHz	10,5,2	45 @ 100MHz	0.750	0.77	620	Violet
WL08□TR22	220 @ 25MHz	10,5,2	45 @ 100MHz	0.700	0.84	500	Gray
WL08□TR24	240 @ 25MHz	10,5,2	45 @ 100MHz	0.650	0.88	500	White
WL08□TR27	270 @ 25MHz	10,5,2	45 @ 100MHz	0.600	0.91	500	Black
WL08□TR30	300 @ 25MHz	10,5,2	45 @ 100MHz	0.585	1.00	450	Brown
WL08□TR33	330 @ 25MHz	10,5,2	45 @ 100MHz	0.570	1.05	450	Red
WL08□TR36	360 @ 25MHz	10,5,2	45 @ 100MHz	0.530	1.10	470	Orange
WL08□TR39	390 @ 25MHz	10,5,2	45 @ 100MHz	0.500	1.12	470	Yellow
WL08□TR43	430 @ 25MHz	10,5,2	45 @ 100MHz	0.480	1.15	470	Green
WL08□TR47	470 @ 25MHz	10,5,2	45 @ 100MHz	0.450	1.19	470	Blue
WL08□TR56	560 @ 25MHz	10,5,2	45 @ 100MHz	0.415	1.33	400	Violet
WL08□TR62	620 @ 25MHz	10,5,2	45 @ 100MHz	0.375	1.40	300	Gray
WL08□TR68	680 @ 25MHz	10,5,2	45 @ 100MHz	0.375	1.47	400	White
WL08□TR75	750 @ 25MHz	10,5,2	45 @ 100MHz	0.360	1.54	360	Black
WL08□TR82	820 @ 25MHz	10,5,2	45 @ 100MHz	0.350	1.61	400	Brown
WL08□TR91	910 @ 25MHz	10,5,2	35 @ 50MHz	0.320	1.68	380	Red
WL08□T1R0	1000 @ 25MHz	10,5,2	35 @ 50MHz	0.290	1.75	370	Orange
WL08□T1R2	1200 @ 7.9MHz	10,5,2	35 @ 50MHz	0.250	2.00	310	Yellow
WL08□T1R5	1500 @ 7.9MHz	10,5,2	28 @ 50MHz	0.200	2.30	330	Green
WL08□T1R8	1800 @ 7.9MHz	10,5,2	28 @ 50MHz	0.160	2.60	300	Blue
WL08□T2R2	2200 @ 7.9MHz	10,5,2	28 @ 50MHz	0.160	2.80	280	Violet
WL08□T2R7	2700 @ 7.9MHz	10,5,2	22 @ 25MHz	0.140	3.20	290	Gray
WL08□T3R3	3300 @ 7.9MHz	10,5,2	22 @ 25MHz	0.110	3.40	290	White
WL08□T3R9	3900 @ 7.9MHz	10,5,2	20 @ 25MHz	0.100	3.60	260	Black
WL08□T4R7	4700 @ 7.9MHz	10,5,2	20 @ 25MHz	0.090	4.00	260	Brown
WL08□T5R6	5600 @ 7.9MHz	10,5,2	16 @ 7.96MHz	0.020	4.00	240	Red
WL08□T6R8	6800 @ 7.9MHz	10,5,2	15 @ 7.96MHz	0.040	4.90	200	Orange
WL08□T8R2	8200 @ 7.9MHz	10,5,2	15 @ 7.96MHz	0.025	6.00	170	Yellow
WL08□T103	10000 @ 2.52MHz	10,5,2	15 @ 7.96MHz	0.020	9.00	150	Green
WL08□T123	12000 @ 2.52MHz	10,5,2	15 @ 7.96MHz	0.018	10.5	130	Blue
WL08□T153	15000 @ 2.52MHz	10,5,2	15 @ 7.96MHz	0.015	11.5	120	Violet

Working Temperature : -40 °C ~ 125 °C

# WL Series — Wire Wound Chip Inductor

## Standard Electrical Specifications

### 0805 Wire Wound Chip Inductors / Low Profile

Part Number	Inductance nH	Tolerance (%)	Quality Factor /min.	Self Resonant Frequency /min. (GHz)	Resistance DC/Max (Ohm)	Current DC/Max (mA)	Color Code
WL05□TL1N8	1.8 @ 250MHz	10	55 @ 1500MHz	9.40	0.03	800	Black
WL05□TL3N9	3.9 @ 250MHz	10,5	50 @ 1000MHz	6.10	0.06	800	Brown
WL05□TL4N7	4.7 @ 250MHz	10,5	50 @ 1000MHz	5.50	0.06	800	Red
WL05□TL6N8	6.8 @ 250MHz	10,5	50 @ 1000MHz	5.50	0.08	800	Orange
WL05□TL8N2	8.2 @ 250MHz	10,5	50 @ 1000MHz	4.80	0.08	800	Yellow
WL05□TL10N	10.0 @ 250MHz	10,5,2	55 @ 750MHz	3.30	0.08	800	Green
WL05□TL12N	12.0 @ 250MHz	10,5,2	55 @ 750MHz	3.80	0.10	800	Blue
WL05□TL15N	15.0 @ 250MHz	10,5,2	50 @ 500MHz	2.95	0.10	800	Violet
WL05□TL18N	18.0 @ 250MHz	10,5,2	50 @ 500MHz	3.10	0.13	800	Gray
WL05□TL22N	22.0 @ 250MHz	10,5,2	50 @ 500MHz	2.90	0.15	800	Whit
WL05□TL27N	27.0 @ 250MHz	10,5,2	50 @ 500MHz	2.45	0.23	600	Black
WL05□TL33N	33.0 @ 250MHz	10,5,2	50 @ 500MHz	2.35	0.28	600	Brown
WL05□TL39N	39.0 @ 250MHz	10,5,2	50 @ 500MHz	2.20	0.33	600	Red
WL05□TL47N	47.0 @ 200MHz	10,5,2	50 @ 500MHz	2.00	0.39	600	Orange
WL05□TL56N	56.0 @ 200MHz	10,5,2	50 @ 500MHz	1.85	0.39	500	Yellow
WL05□TL68N	68.0 @ 200MHz	10,5,2	50 @ 500MHz	1.50	0.40	500	Green
WL05□TL82N	82.0 @ 150MHz	10,5,2	50 @ 500MHz	1.50	0.44	500	Blue
WL05□TLR10	100.0 @ 150MHz	10,5,2	50 @ 500MHz	1.20	0.64	400	Violet
WL05□TLR12	120.0 @ 150MHz	10,5,2	40 @ 250MHz	1.15	0.68	300	Gray
WL05□TLR15	150.0 @ 150MHz	10,5,2	40 @ 250MHz	1.05	0.80	300	Whit
WL05□TL1R0	1000.0 @ 25MHz	10,5,2	16 @ 50MHz	0.08	2.00	220	Black

### 1008 Wire Wound Chip Inductors / Low Profile

Part Number	Inductance nH	Tolerance (%)	Quality Factor /min.	Self Resonant Frequency /min. (GHz)	Resistance DC/Max (Ohm)	Current DC/Max (mA)	Color Code
WL08□TL4N2	4.2 @ 50MHz	10,5	42 @ 1500MHz	6.00	0.15	600	Black
WL08□TL6N8	6.8 @ 50MHz	10,5	50 @ 1500MHz	5.40	0.17	600	Brown
WL08□TL8N2	8.2 @ 50MHz	10,5	50 @ 1500MHz	5.00	0.22	600	Red
WL08□TL15N	15 @ 50MHz	10,5	57 @ 500MHz	3.00	0.22	600	Orange
WL08□TL20N	20 @ 50MHz	10,5	72 @ 500MHz	2.40	0.33	600	Yellow
WL08□TL27N	27 @ 50MHz	10,5	50 @ 350MHz	1.60	0.13	600	Green
WL08□TL30N	30 @ 50MHz	10,5	69 @ 500MHz	2.40	0.38	600	Blue
WL08□TL40N	40 @ 50MHz	10,5	67 @ 500MHz	2.00	0.43	600	Violet
WL08□TL50N	50 @ 50MHz	10,5,2	72 @ 500MHz	1.90	0.48	600	Gray
WL08□TL60N	60 @ 50MHz	10,5,2	75 @ 500MHz	1.80	0.52	600	White
WL08□TL70N	70 @ 50MHz	10,5,2	68 @ 500MHz	1.70	0.55	510	Black
WL08□TL80N	80 @ 50MHz	10,5,2	75 @ 500MHz	1.40	0.56	510	Brown
WL08□TLR56	560 @ 25MHz	10,5,2	40 @ 100MHz	0.40	1.33	400	Red

Working Temperature : -40 °C ~ 125 °C



# WL Series — Wire Wound Chip Inductor

## Standard Electrical Specifications

### 0603 Wire Wound Chip Inductors / High Current

Part Number	Inductance nH	Tolerance (%)	Quality Factor /min.	Self Resonant Frequency /min. (GHz)	Resistance DC/Max (Ohm)	Current DC/Max (mA)	Color Code
WL03□TH1N6	1.6 @ 250MHz	10,5	24	12.50	0.030	2400	Black
WL03□TH3N6	3.6 @ 250MHz	10,5	24	5.90	0.048	2300	Brown
WL03□TH3N9	3.9 @ 250MHz	10,5	25	5.90	0.054	2200	Red
WL03□TH6N8	6.8 @ 250MHz	10,5	35	5.80	0.054	2100	Orange
WL03□TH7N5	7.5 @ 250MHz	10,5	35	3.70	0.059	2100	Yellow
WL03□TH8N2	8.2 @ 250MHz	10,5	38	3.70	0.060	2000	White
WL03□TH10N	10.0 @ 250MHz	10,5,2	38	3.70	0.071	2000	Green
WL03□TH12N	12.0 @ 250MHz	10,5,2	38	3.00	0.075	2000	Blue
WL03□TH15N	15.0 @ 250MHz	10,5,2	38	2.80	0.080	1900	Violet
WL03□TH18N	18.0 @ 250MHz	10,5,2	40	2.80	0.099	1900	Gray
WL03□TH22N	22.0 @ 250MHz	10,5,2	42	2.40	0.099	1800	White
WL03□TH24N	24.0 @ 250MHz	10,5,2	42	2.40	0.105	1800	Black

### 0805 Wire Wound Chip Inductors / High Q

Part Number	Inductance nH	Tolerance (%)	Quality Factor /min.	Self Resonant Frequency /min. (GHz)	Resistance DC/Max (Ohm)	Current DC/Max (mA)	Color Code
WL05□TH2N5	2.5 @ 250MHz	10,5	80 @ 1500MHz	6.00	0.020	1600	Black
WL05□TH5N6	5.6 @ 250MHz	10,5	98 @ 1500MHz	6.00	0.035	1600	Brown
WL05□TH6N2	6.2 @ 250MHz	10,5	88 @ 1000MHz	4.75	0.035	1600	Red
WL05□TH6N8	6.8 @ 250MHz	10,5	80 @ 1000MHz	4.40	0.035	1600	White
WL05□TH8N2	8.2 @ 250MHz	10,5	75 @ 1000MHz	3.00	0.075	1000	Gray
WL05□TH12N	12 @ 250MHz	10,5	80 @ 1000MHz	3.00	0.045	1600	Orange
WL05□TH15N	15 @ 250MHz	10,5,2	80 @ 1000MHz	2.80	0.100	1200	Black
WL05□TH16N	16 @ 250MHz	10,5,2	72 @ 500MHz	2.95	0.060	1500	Yellow
WL05□TH18N	18 @ 250MHz	10,5,2	75 @ 500MHz	2.55	0.060	1400	Green
WL05□TH20N	20 @ 250MHz	10,5,2	70 @ 500MHz	2.05	0.055	1400	Blue
WL05□TH22N	22 @ 250MHz	10,5,2	80 @ 500MHz	2.00	0.100	1200	Black
WL05□TH27N	27 @ 250MHz	10,5,2	75 @ 500MHz	2.00	0.070	1300	Violet
WL05□TH30N	30 @ 250MHz	10,5,2	65 @ 500MHz	1.95	0.095	1200	Gray
WL05□TH39N	39 @ 250MHz	10,5,2	65 @ 500MHz	1.60	0.110	1100	White
WL05□TH48N	48 @ 200MHz	10,5,2	65 @ 500MHz	1.40	0.095	1200	Black
WL05□TH51N	51 @ 200MHz	10,5,2	65 @ 500MHz	1.40	0.120	1000	Brown

### 1008 Wire Wound Chip Inductors / High Q

Part Number	Inductance nH	Tolerance (%)	Quality Factor /min.	Self Resonant Frequency /min. (GHz)	Resistance DC/Max (Ohm)	Current DC/Max (mA)	Color Code
*WL08□TH3N0	3.0 @ 50MHz	10,5	70 @ 1500MHz	6.00	0.04	1600	Black
WL08□TH4N1	4.1 @ 50MHz	10,5	75 @ 1500MHz	6.00	0.05	1600	Brown
*WL08□TH7N8	7.8 @ 50MHz	10,5	75 @ 500MHz	3.80	0.05	1600	Red
WL08□TH10N	10 @ 50MHz	10,5,2	60 @ 500MHz	3.60	0.06	1600	Orange
WL08□TH12N	12 @ 50MHz	10,5,2	70 @ 500MHz	2.80	0.06	1500	Yellow
WL08□TH18N	18 @ 50MHz	10,5,2	62 @ 350MHz	2.70	0.07	1400	Green
WL08□TH22N	22 @ 50MHz	10,5,2	62 @ 350MHz	2.05	0.07	1400	Blue
WL08□TH33N	33 @ 50MHz	10,5,2	75 @ 350MHz	1.70	0.09	1300	Violet
WL08□TH39N	39 @ 50MHz	10,5,2	75 @ 350MHz	1.30	0.09	1300	Gray
WL08□TH47N	47 @ 50MHz	10,5,2	75 @ 350MHz	1.45	0.12	1200	White
WL08□TH56N	56 @ 50MHz	10,5,2	75 @ 350MHz	1.23	0.12	1200	Black
WL08□TH68N	68 @ 50MHz	10,5,2	80 @ 350MHz	1.15	0.13	1100	Brown
WL08□TH82N	82 @ 50MHz	10,5,2	80 @ 350MHz	1.06	0.16	1100	Red
WL08□THR10	100 @ 50MHz	10,5,2	62 @ 350MHz	0.82	0.16	1000	Orange

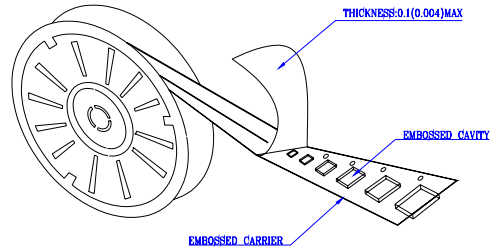
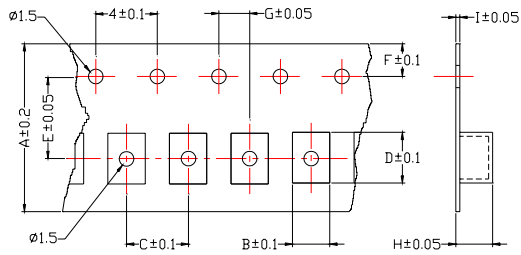
Working Temperature : -40 °C ~ 125 °C

\* Parts (3.0nH, 7.8nH) are wound on a low profile bobbin.

# WL Series — Wire Wound Chip Inductor

## Packing

### Reel Dimensions & Packaging Quantity



Unit: mm

Series	A	B	C	D	E	F	G	H	I	Reel (EA)
WL08	8	2.70	4	2.80	3.5	1.75	2	2.00	0.23	2,000
WL06	8	1.95	4	3.50	3.5	1.75	2	1.50	0.23	2,000
WL05	8	1.85	4	2.30	3.5	1.75	2	1.45	0.23	2,000
WL03	8	1.12	4	1.85	3.5	1.75	2	0.96	0.23	4,000
WL02	8	0.71	2	1.16	3.5	1.75	2	0.65	0.23	4,000

## Environmental Characteristics

### Mechanical Performance

Item	Specification	Test Method
1	Vibration Test	Appearance: No damage L change: within $\pm 5\%$ Q change: within $\pm 10\%$
2	Resistance to Soldering-Heat	
3	Component Adhesion (Push Test)	1 lbs. For 0402 2 lbs. For 0603 3 lbs. For the rest
4	Drop Test	No damage
5	Solderability Test	90% covered with solder.
6	Resistance to Solvent Test	No damage on appearance and marking.

Test device shall be soldered on the substrate  
Oscillation Frequency: 10 to 55 to 10Hz for 1min  
Amplitude: 1.5mm  
Time: 2hrs for each axis (X, Y & Z), total 6hrs  
Solder Temperature:  $260 \pm 5^\circ\text{C}$   
Immersion Time:  $10 \pm 2\text{sec}$

The device should be soldered ( $260 \pm 5^\circ\text{C}$  for 10 seconds) to a tinned copper subs rate. A dynamiter force gauge should be applied to the side of the component. The device must with stand a minimum force of 2 or 4 pounds without a failure of adhesion on termination

Dropping chip by each side and each corner. Drop 10 times in total  
Drop height :100cm  
Drop weight:125g

Inductor shall be dipped in a melted solder bath at  $260 \pm 5^\circ\text{C}$  for 5 seconds.

MIL-STD202F, Method 215D

## Environmental Characteristics

### Electrical Performance Test

Item	Specification	Test Method
1 Inductance	Refer to standard electrical characteristic spec.	HP4291B
2 Q		HP4291B
3 SRF		HP8753D
4 DC Resistance RDC		Micro-Ohm meter (Gom-801G)
5 Rated Current IDC		Applied the current to coils, The inductance change should be less than 10% to initial value
6 Over Load Test	Inductors shall have no evidence of electrical and mechanical damage	Applied 2 times of rated allowed DC current to inductor for a period of 5 minute
7 Withstanding Voltage Test	Inductors shall be no evidence of electrical and mechanical damage.	AC voltage of 500 VAC applied between inductors terminal and case for 1 minute.
8 Insulation Resistance Test	1000M ohm min	100 VDC applied between inductor terminal and case

### Climatic Test

Item	Specification	Test Method															
1 Temperature Characteristic	Appearance: No damage L change: within $\pm 10\%$ Q change: within $\pm 20\%$	-40°C ~ +125°C															
2 Humidity Resistance		Temperature: 40 $\pm 2$ °C Relative Humidity: 90~95% Time: 96hrs $\pm 2$ hrs Measured after exposure in the room condition for 2hrs															
3 Low Temperature Storage Test		Temperature: -40 $\pm 2$ °C Time: 48 $\pm 2$ hrs Inductors are tested after 1 hour at room temperature															
4 Thermal Shock Test		One cycle: <table border="1"> <thead> <tr> <th>Step</th> <th>Temperature ( °C )</th> <th>Time ( min )</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-25<math>\pm 3</math></td> <td>30</td> </tr> <tr> <td>2</td> <td>25<math>\pm 2</math></td> <td>15</td> </tr> <tr> <td>3</td> <td>85<math>\pm 3</math></td> <td>30</td> </tr> <tr> <td>4</td> <td>25<math>\pm 2</math></td> <td>15</td> </tr> </tbody> </table> Total: 5 cycles	Step	Temperature ( °C )	Time ( min )	1	-25 $\pm 3$	30	2	25 $\pm 2$	15	3	85 $\pm 3$	30	4	25 $\pm 2$	15
Step		Temperature ( °C )	Time ( min )														
1		-25 $\pm 3$	30														
2		25 $\pm 2$	15														
3	85 $\pm 3$	30															
4	25 $\pm 2$	15															
5 High Temperature Storage Test	Temperature: 125 $\pm 2$ °C Time: 48 $\pm 2$ hrs Measured after exposure in the room condition for 1hr																
6 High Temperature Load Life Test	Temperature: 85 $\pm 2$ °C Time: 1000 $\pm 12$ hrs Load: Allowed DC current																
7 Humidity Load Life	Temperature: 40 $\pm 2$ °C Relative Humidity: 90~95% Time: 1000 $\pm 12$ hrs Load: Allowed DC current																

※Storage Temperature : 25 $\pm 3$ °C; Humidity: <80%RH