



● **FEATURE**

1. Wire wound SMD inductors, for power line used
2. Highly accurate dimensions and reliable



● **APPLICATION**

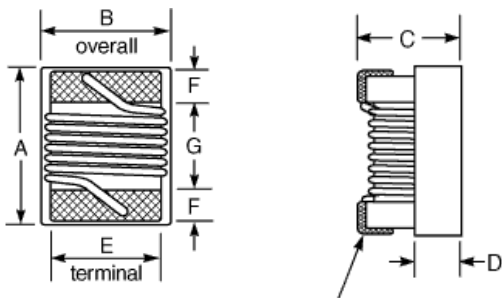
1. Hard Disk drives, and other electronic equipment

● **ORDERING INFORMATION**

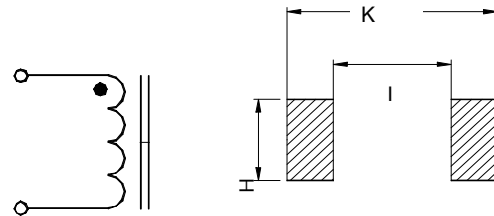
<u>WCC161010</u>	<u>-47N</u>	<u>T</u>
PN	Inductance	J :±5%
		K :±10%
		M :±20%

● **SHAPE AND DIMENSION**

● **SCHEMATICS AND LAND PATTERNS (mm)**



TERMINAL



● **SPECIFICATION**

Dimension in m/m

TYPE	A	B	C	D	E	F	G	K	H	I
WCC161010(0603)	1.80Max	1.20Max	1.20Max	0.45	0.80	0.35	0.80	1.92	1.10	0.64
WCC201212(0805)	2.40Max	1.65Max	1.30Max	0.65	1.00	0.44	1.00	2.80	1.78	0.76
WCC52018(1008)	2.90Max	2.54Max	2.03Max	1.30	2.00	0.50	1.50	3.31	2.54	1.27

Note1. Measurement frequency of Inductance value : at electrical characteristics

Note2. Measurement ambient temperature of L, DCR and IDC : at 25°C

Note3. IDC : This indicates the value of current when the inductances is 10% lower than its initial value at D.C. superimposition or D.C. current when at Δt=20°C, which is lower.(Ta=20°C)

Note4. Inductance tolerance: J: ±5% ; K: ±10% ; M: ±20%



●ELECTRICAL CHARACTERISTICS

PART NUMBER	L (μH)	TEST FREQ. (MHz)	Q Min	SRF (MHz) Min	RDC (Ω) Max	IDC (mA) Max
WCC161010-47NT	0.047	7.96	10	2000	0.075	1800
WCC161010-R10T	0.10	7.96	12	1150	0.130	2200
WCC161010-R15T	0.15	7.96	15	1050	0.150	1800
WCC161010-R22T	0.22	7.96	15	900	0.300	1200
WCC161010-R24T	0.24	7.96	15	850	0.160	1200
WCC161010-R27T	0.27	7.96	15	835	0.350	1180
WCC161010-R33T	0.33	7.96	15	725	0.460	1000
WCC161010-R39T	0.39	7.96	15	680	0.450	1000
WCC161010-R47T	0.47	7.96	15	640	0.430	1400
WCC161010-R56T	0.56	7.96	15	630	0.440	1400
WCC161010-R68T	0.68	7.96	15	510	0.520	1340
WCC161010-R78T	0.78	7.96	15	465	0.630	1300
WCC161010-R82T	0.82	7.96	15	460	0.690	1200
WCC161010-1R0T	1.0	7.96	15	320	0.810	1100
WCC161010-1R2T	1.2	7.96	15	270	0.870	1000
WCC161010-1R5T	1.5	7.96	15	230	0.960	920
WCC161010-1R8T	1.8	7.96	15	210	1.100	900
WCC161010-2R2T	2.2	7.96	15	115	1.200	740
WCC161010-2R7T	2.7	7.96	15	100	1.380	700
WCC161010-3R3T	3.3	7.96	15	84	1.500	680
WCC161010-3R9T	3.9	7.96	15	75	1.500	600
WCC161010-4R7T	4.7	7.96	15	67	2.100	580
WCC161010-5R6T	5.6	7.96	15	55	2.370	540
WCC161010-6R8T	6.8	7.96	15	48	3.100	500
WCC161010-7R8T	7.8	7.96	15	40	3.350	460
WCC161010-8R2T	8.2	7.96	15	38	3.500	440
WCC161010-100T	10	2.52	12	32	4.460	400



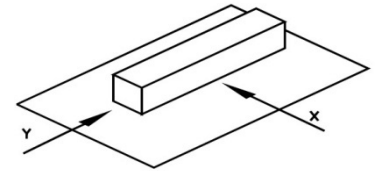
PART NUMBER	L (μH)	TEST FREQ. (MHz)	Q Min	SRF (MHz) Min	RDC (Ω) Max	IDC (mA) Max
WCC201212-R12T	0.12	25	25	1000	0.18	1500
WCC201212-R15T	0.15	25	25	1000	0.18	1400
WCC201212-R18T	0.18	25	30	1000	0.20	1400
WCC201212-R22T	0.22	25	30	830	0.25	1350
WCC201212-R27T	0.27	25	30	800	0.38	1300
WCC201212-R33T	0.33	25	30	750	0.35	1200
WCC201212-R39T	0.39	25	30	700	0.35	1160
WCC201212-R47T	0.47	25	30	690	0.40	1100
WCC201212-R56T	0.56	25	30	640	0.40	1040
WCC201212-R62T	0.62	25	30	640	0.45	980
WCC201212-R68T	0.68	25	30	510	0.50	900
WCC201212-R82T	0.82	25	30	500	0.50	900
WCC201212-R91T	0.91	25	30	500	0.55	900
WCC201212-1R0T	1.0	7.9	20	470	0.60	840
WCC201212-1R2T	1.2	7.9	20	400	0.75	800
WCC201212-1R5T	1.5	7.9	25	400	1.00	720
WCC201212-1R8T	1.8	7.9	25	230	1.00	660
WCC201212-2R2T	2.2	7.9	25	200	1.05	600
WCC201212-2R7T	2.7	7.9	25	130	1.18	500
WCC201212-3R3T	3.3	7.9	25	160	1.26	480
WCC201212-3R9T	3.9	7.9	25	130	1.75	440
WCC201212-4R7T	4.7	7.9	25	120	1.87	390
WCC201212-5R6T	5.6	7.9	25	90	2.00	340
WCC201212-6R8T	6.8	7.9	25	55	2.15	300
WCC201212-8R2T	8.2	7.9	25	40	2.37	280
WCC201212-100T	10	2.5	25	40	2.55	260
WCC201212-120T	12	2.5	16	37	2.80	220
WCC201212-150T	15	2.5	16	30	3.80	200
WCC201212-180T	18	2.5	16	23	4.48	180
WCC201212-220T	22	2.5	16	20	6.30	160
WCC201212-270T	27	2.5	16	19	6.85	140
WCC201212-330T	33	2.5	16	18	7.60	120



PART NUMBER	L (μH)	TEST FREQ. (MHz)	Q Min	SRF (MHz) Min	RDC (Ω) Max	IDC (mA) Max
WCC252018-R22T	0.22 / 25	J , K	30 / 25	930	0.40	920
WCC252018-R56T	0.56 / 25	J , K	30 / 25	460	0.55	900
WCC252018-R62T	0.62 / 25	J , K	30 / 25	460	0.55	900
WCC252018-R68T	0.68 / 25	J , K	30 / 25	420	0.55	880
WCC252018-R75T	0.75 / 25	J , K	30 / 25	420	0.65	880
WCC252018-R82T	0.82 / 25	J , K	30 / 25	380	0.65	840
WCC252018-R91T	0.91 / 25	J , K	30 / 25	400	0.65	840
WCC252018-1R0T	1.0 / 7.9	J , K	25 / 7.9	300	0.72	800
WCC252018-1R2T	1.2 / 7.9	J , K	25 / 7.9	280	0.74	800
WCC252018-1R5T	1.5 / 7.9	J , K	25 / 7.9	245	0.85	780
WCC252018-1R8T	1.8 / 7.9	J , K	25 / 7.9	240	0.92	780
WCC252018-2R2T	2.2 / 7.9	J , K	25 / 7.9	205	0.99	760
WCC252018-2R7T	2.7 / 7.9	J , K	25 / 7.9	187	1.02	760
WCC252018-3R3T	3.3 / 7.9	J , K	25 / 7.9	165	1.37	740
WCC252018-3R9T	3.9 / 7.9	J , K	25 / 7.9	144	1.66	700
WCC252018-4R7T	4.7 / 7.9	J , K	25 / 7.9	110	1.68	660
WCC252018-5R6T	5.6 / 7.9	J , K	25 / 7.9	88	1.75	640
WCC252018-6R8T	6.8 / 7.9	J , K	25 / 7.9	70	1.85	640
WCC252018-8R2T	8.2 / 7.9	J , K	25 / 7.9	57	2.00	600
WCC252018-100T	10 / 2.5	J , K	15 / 2.5	55	2.32	600
WCC252018-120T	12 / 2.5	J , K	15 / 2.5	52	2.99	560
WCC252018-150T	15 / 2.5	J , K	15 / 2.5	49	3.42	480
WCC252018-180T	18 / 2.5	J , K	15 / 2.5	48	4.65	420
WCC252018-220T	22 / 2.5	J , K	15 / 2.5	25	5.12	420
WCC252018-270T	27 / 2.5	J , K	15 / 2.5	23	5.76	420
WCC252018-330T	33 / 2.5	J , K	15 / 2.5	17	6.44	400
WCC252018-390T	39 / 2.5	J , K	15 / 2.5	15	6.85	380
WCC252018-470T	47 / 2.5	J , K	14 / 2.5	13	9.94	340
WCC252018-560T	56 / 2.5	J , K	14 / 2.5	10	10.7	280
WCC252018-680T	68 / 2.5	J , K	14 / 2.5	8	12.8	260
WCC252018-820T	82 / 2.5	J , K	14 / 2.5	8	18.3	240
WCC252018-101T	100 / 1	J , K	8 / 1	7	19.6	200

●GENERAL CHARACTERISTICS

1. Operating temperature range: -40 TO + 85°C (Includes temperature when the coil is heated)
2. External appearance: On visual inspection, the coil has external defects.
3. Terminal strength: After soldering. Between copper plate and terminals of coil.
Push in two directions of X.Y withstanding at below conditions.
Terminal should not peel off. (refer to figure at right) 0.5kg
4. Insulating resistance: Over 100MΩ at 100V D.C. between coil and core.
5. Dielectric strength: No dielectric breakdown at 100V D.C. for 1 minute between coil and core.
6. Temperature characteristics: Inductance coefficient $(0\sim 2,000)\times 10^{-6}/^{\circ}\text{C}$ (-25~+80°C).
7. Humidity characteristics(Moisture Resistance): Inductance deviation within $\pm 5\%$, after 96 hours in 90~95% relative humidity at $40 \pm 2^{\circ}\text{C}$ and 1 hour drying under normal condition.
8. Vibration resistance: Inductance deviation within $\pm 5\%$, after vibration for 1 hour. In each of three orientations at sweep vibration (10~55~10 Hz) with 1.5mm P-P amplitudes.
9. Shock resistance: Inductance deviation within $\pm 5\%$, after being dropped once with 981m/s² (100G) shock attitude upon a rubber block method shock testing machine, in three different orientations.
10. Resistance to Soldering Heat: 260°C, 10 seconds.
11. Storage environment



Storage condition:

Temperature Range: 10°C ~ 35°C (Generally: 21°C ~ 31°C)

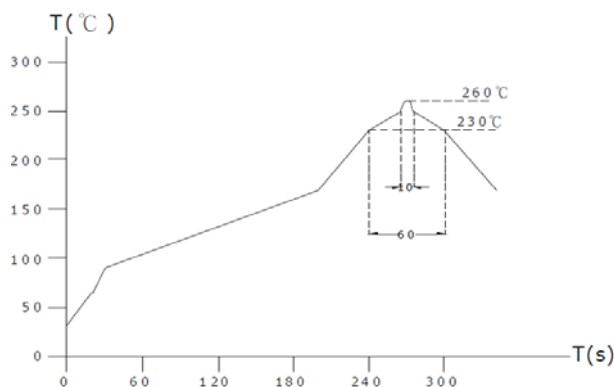
Humidity Range: 50% ~ 80% RH (Generally: 65% ~ 75%)

Transportation condition:

Temperature Range: -35°C ~ 85°C, Humidity Range: 50% ~ 95% RH

12. Use components within 6 months. If 6 months or more have elapsed, check solderability before use.
13. Reflow profile recommend:

Lead - free heat endurance test



Lead-free the recommended reflow condition

