



● **FEATURE**

1. Wire wound SMD inductors
2. Highly accurate dimensions and reliable

● **APPLICATION**

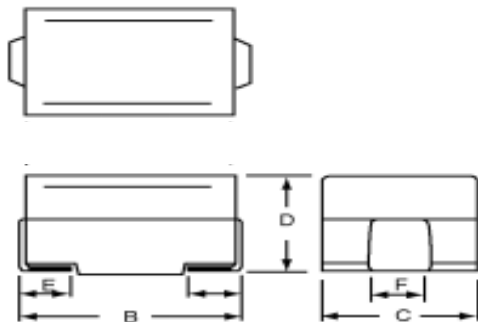
1. Digital camera, PDA
2. LCD panel
3. Hard Disk drives, and other electronic equipment



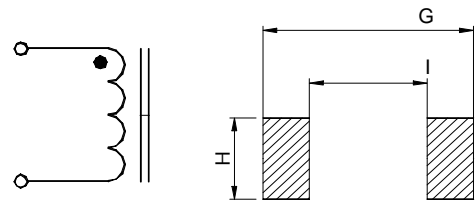
● **ORDERING INFORMATION**

<u>WCF252018</u>	<u>-R15</u>	<u>T</u>
PN	Inductance	J :±5%
		K :±10%
		M :±20%

● **SHAPE AND DIMENSION**



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



● **SPECIFICATION**

Dimension in m/m

TYPE	B	C	D	E	F	G	I	H
WCF252018(1008)	2.50±0.20	2.00±0.20	1.80±0.20	0.45	1.40	3.00	1.40	2.00
WCF322522(1210)	3.20±0.30	2.50±0.20	2.20±0.20	0.60	1.10	4.00	2.00	1.60
WCF453232(1812)	4.50±0.30	3.20±0.20	3.20±0.20	0.90	1.30	6.00	3.00	2.50
WCF565050(2220)	5.60±0.30	5.00±0.30	5.00±0.30	1.00	2.00	8.00	4.00	4.50

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%

Note5. This specification might be changed without notice due to under developing and improving.



●ELECTRICAL CHARACTERISTICS

PART NUMBER	L ( $\mu$ H)	TEST FREQ. (MHz)	Q Min	SRF (MHz) Min	RDC ( $\Omega$ ) Max	IDC (mA) Max
WCF252018-R15K	0.15	25.2	30	550	0.42	480
WCF252018-R18K	0.18	25.2	30	500	0.46	460
WCF252018-R22K	0.22	25.2	30	450	0.52	430
WCF252018-R27K	0.27	25.2	30	425	0.56	420
WCF252018-R33K	0.33	25.2	30	400	0.60	400
WCF252018-R39K	0.39	25.2	30	375	0.65	375
WCF252018-R47K	0.47	25.2	30	350	0.68	350
WCF252018-R56K	0.56	25.2	30	300	0.75	325
WCF252018-R68K	0.68	25.2	30	270	0.85	300
WCF252018-R82K	0.82	25.2	30	250	1.00	260
WCF252018-1R0J	1.0	7.96	30	220	1.10	245
WCF252018-1R2J	1.2	7.96	30	180	1.20	230
WCF252018-1R5J	1.5	7.96	30	135	1.30	220
WCF252018-1R8J	1.8	7.96	30	100	1.45	210
WCF252018-2R2J	2.2	7.96	30	75	1.55	200
WCF252018-2R7J	2.7	7.96	30	55	1.70	195
WCF252018-3R3J	3.3	7.96	30	48	1.90	185
WCF252018-3R9J	3.9	7.96	30	43	2.10	180
WCF252018-4R7J	4.7	7.96	30	40	2.30	175
WCF252018-5R6J	5.6	7.96	25	36	2.50	170
WCF252018-6R8J	6.8	7.96	25	33	2.70	165
WCF252018-8R2J	8.2	7.96	25	30	3.05	160
WCF252018-100J	10	2.52	25	27	3.50	155
WCF252018-120J	12	2.52	25	23	3.80	150
WCF252018-150J	15	2.52	25	20	4.40	140
WCF252018-180J	18	2.52	25	18	4.80	130
WCF252018-220J	22	2.52	25	17	5.50	125
WCF252018-270J	27	2.52	25	16	6.30	115
WCF252018-330J	33	2.52	25	15	7.10	110
WCF252018-390J	39	2.52	20	14	9.50	90
WCF252018-470J	47	2.52	20	13	11.10	80
WCF252018-560J	56	2.52	20	12	12.10	75
WCF252018-680J	68	2.52	20	11	16.60	70
WCF252018-820J	82	2.52	20	10	19.00	65
WCF252018-101J	100	0.796	15	9	21.00	60



<b>PART NUMBER</b>	<b>L (<math>\mu</math>H)</b>	<b>TEST FREQ. (MHz)</b>	<b>Q Min</b>	<b>SRF (MHz) Min</b>	<b>RDC (<math>\Omega</math>) Max</b>	<b>IDC (mA) Max</b>
WCF322522-R12K	0.12	25.2	30	500	0.22	450
WCF322522-R15K	0.15	25.2	30	450	0.25	450
WCF322522-R18K	0.18	25.2	30	400	0.28	450
WCF322522-R22K	0.22	25.2	30	350	0.32	450
WCF322522-R27K	0.27	25.2	30	320	0.36	450
WCF322522-R33K	0.33	25.2	30	300	0.40	450
WCF322522-R39K	0.39	25.2	30	250	0.45	450
WCF322522-R47K	0.47	25.2	30	220	0.50	450
WCF322522-R56K	0.56	25.2	30	180	0.55	450
WCF322522-R68K	0.68	25.2	30	160	0.60	450
WCF322522-R82K	0.82	25.2	30	140	0.65	450
WCF322522-1R0K	1.0	7.96	30	120	0.70	400
WCF322522-1R2K	1.2	7.96	30	100	0.75	390
WCF322522-1R5K	1.5	7.96	30	85	0.85	370
WCF322522-1R8K	1.8	7.96	30	80	0.90	350
WCF322522-2R2K	2.2	7.96	30	75	1.00	320
WCF322522-2R7K	2.7	7.96	30	70	1.10	290
WCF322522-3R3K	3.3	7.96	30	60	1.20	260
WCF322522-3R9K	3.9	7.96	30	55	1.30	250
WCF322522-4R7K	4.7	7.96	30	50	1.50	220
WCF322522-5R6K	5.6	7.96	30	47	1.60	200
WCF322522-6R8K	6.8	7.96	30	43	1.80	180
WCF322522-8R2K	8.2	7.96	30	40	2.00	170
WCF322522-100K	10	2.52	30	36	2.10	150
WCF322522-120K	12	2.52	30	33	2.50	140
WCF322522-150K	15	2.52	30	28	2.80	130
WCF322522-180K	18	2.52	30	25	3.30	120
WCF322522-220K	22	2.52	30	23	3.70	110
WCF322522-270K	27	2.52	30	18	5.00	80
WCF322522-330K	33	2.52	30	17	5.60	70
WCF322522-390K	39	2.52	30	16	6.40	65
WCF322522-470K	47	2.52	30	15	7.00	60
WCF322522-560K	56	2.52	30	13	8.00	55
WCF322522-680K	68	2.52	30	12	9.00	50
WCF322522-101K	100	0.796	20	10	11.00	40



<b>PART NUMBER</b>	<b>L (<math>\mu</math>H)</b>	<b>TEST FREQ. (MHz)</b>	<b>Q Min</b>	<b>SRF (MHz) Min</b>	<b>RDC (<math>\Omega</math>) Max</b>	<b>IDC (mA) Max</b>
WCF453232-R10K	0.10	25.2	35	300	0.18	800
WCF453232-R12K	0.12	25.2	35	280	0.20	770
WCF453232-R15K	0.15	25.2	35	250	0.22	730
WCF453232-R18K	0.18	25.2	35	220	0.24	700
WCF453232-R22K	0.22	25.2	40	200	0.25	665
WCF453232-R27K	0.27	25.2	40	180	0.26	635
WCF453232-R33K	0.33	25.2	40	165	0.28	605
WCF453232-R39K	0.39	25.2	40	150	0.30	575
WCF453232-R47K	0.47	25.2	40	145	0.32	545
WCF453232-R56K	0.56	25.2	40	140	0.36	520
WCF453232-R68K	0.68	25.2	40	135	0.40	500
WCF453232-R82K	0.82	25.2	40	130	0.45	475
WCF453232-1R0K	1.0	7.96	50	100	0.50	450
WCF453232-1R2K	1.2	7.96	50	80	0.55	430
WCF453232-1R5K	1.5	7.96	50	70	0.60	410
WCF453232-1R8K	1.8	7.96	50	60	0.65	390
WCF453232-2R2K	2.2	7.96	50	55	0.70	380
WCF453232-2R7K	2.7	7.96	50	50	0.75	370
WCF453232-3R3K	3.3	7.96	50	45	0.80	355
WCF453232-3R9K	3.9	7.96	50	40	0.90	330
WCF453232-4R7K	4.7	7.96	50	35	1.00	315
WCF453232-5R6K	5.6	7.96	50	33	1.10	300
WCF453232-6R8K	6.8	7.96	50	27	1.20	285
WCF453232-8R2K	8.2	7.96	50	25	1.40	270
WCF453232-100K	10	2.52	50	20	1.60	250
WCF453232-120K	12	2.52	50	18	2.00	225
WCF453232-150K	15	2.52	50	17	2.50	200
WCF453232-180K	18	2.52	50	15	2.80	190
WCF453232-220K	22	2.52	50	13	3.20	180
WCF453232-270K	27	2.52	50	12	3.60	170
WCF453232-330K	33	2.52	50	11	4.00	160
WCF453232-390K	39	2.52	50	10	4.50	150
WCF453232-470K	47	2.52	50	10	5.00	140
WCF453232-560K	56	2.52	50	9	5.50	135
WCF453232-680K	68	2.52	50	9	6.00	130



<b>PART NUMBER</b>	<b>L (<math>\mu</math>H)</b>	<b>TEST FREQ. (MHz)</b>	<b>Q Min</b>	<b>SRF (MHz) Min</b>	<b>RDC (<math>\Omega</math>) Max</b>	<b>IDC (mA) Max</b>
WCF453232-820K	82	2.52	50	8	7.00	120
WCF453232-101K	100	0.796	40	8	8.00	110
WCF453232-121K	120	0.796	40	6	8.00	110
WCF453232-151K	150	0.796	40	5	9.00	105
WCF453232-181K	180	0.796	40	5	9.50	102
WCF453232-221K	220	0.796	40	4	10.0	100
WCF453232-271K	270	0.796	40	4	12.0	92
WCF453232-331K	330	0.796	40	3.5	14.0	85
WCF453232-391K	390	0.796	40	3.0	18.0	80
WCF453232-471K	470	0.796	40	3.0	26.0	62
WCF453232-561K	560	0.796	40	3.0	30.0	50
WCF453232-681K	680	0.796	40	3.0	30.0	50
WCF453232-821K	820	0.796	40	2.5	35.0	30
WCF453232-102K	1000	0.252	40	2.5	40.0	30
WCF565050-1R0K	1.0	7.96	10	95	0.030	1800
WCF565050-1R2K	1.2	7.96	10	70	0.035	1700
WCF565050-1R5K	1.5	7.96	10	55	0.04	1600
WCF565050-1R8K	1.8	7.96	10	47	0.05	1400
WCF565050-2R2K	2.2	7.96	10	42	0.06	1300
WCF565050-2R7K	2.7	7.96	10	37	0.07	1200
WCF565050-3R3K	3.3	7.96	10	34	0.08	1120
WCF565050-3R9K	3.9	7.96	10	32	0.09	1050
WCF565050-4R7K	4.7	7.96	10	29	0.11	950
WCF565050-5R6K	5.6	7.96	10	26	0.13	880
WCF565050-6R8K	6.8	7.96	10	24	0.15	810
WCF565050-8R2K	8.2	7.96	10	22	0.18	750
WCF565050-100K	10	2.52	10	19	0.21	690
WCF565050-120K	12	2.52	10	17	0.25	630
WCF565050-150K	15	2.52	10	16	0.30	580
WCF565050-180K	18	2.52	10	14	0.36	530
WCF565050-220K	22	2.52	10	13	0.43	480
WCF565050-270K	27	2.52	10	11.5	0.52	440
WCF565050-330K	33	2.52	10	10.5	0.62	400
WCF565050-390K	39	2.52	10	9.5	0.72	370
WCF565050-470K	47	2.52	10	8.5	0.85	340

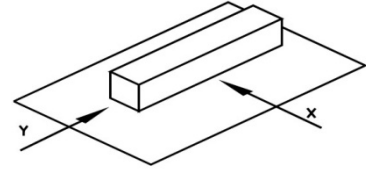


<b>PART NUMBER</b>	<b>L (<math>\mu</math>H)</b>	<b>TEST FREQ. (MHz)</b>	<b>Q Min</b>	<b>SRF (MHz) Min</b>	<b>RDC (<math>\Omega</math>) Max</b>	<b>IDC (mA) Max</b>
WCF565050-560K	56	2.52	10	7.8	1.00	310
WCF565050-680K	68	2.52	10	7	1.20	290
WCF565050-820K	82	2.52	10	6.4	1.40	270
WCF565050-101K	100	0.796	20	6	1.60	250
WCF565050-151K	150	0.796	20	4.8	2.20	210
WCF565050-181K	180	0.796	20	4.4	2.80	190
WCF565050-221K	220	0.796	20	3.9	3.40	170
WCF565050-271K	270	0.796	20	3.6	4.20	155
WCF565050-331K	330	0.796	20	3.2	4.90	140
WCF565050-391K	390	0.796	20	2.9	5.80	130
WCF565050-471K	470	0.796	20	2.6	7.00	120
WCF565050-561K	560	0.796	20	2.4	8.50	110
WCF565050-681K	680	0.796	20	2.2	10	100
WCF565050-821K	820	0.796	20	2	13	90
WCF565050-102K	1000	0.252	20	1.8	15	85
WCF565050-122K	1200	0.252	30	1.5	17	75
WCF565050-152K	1500	0.252	30	1.4	20	70
WCF565050-182K	1800	0.252	30	1.3	30	60
WCF565050-222K	2200	0.252	30	1.2	35	55
WCF565050-272K	2700	0.252	30	1.1	55	45
WCF565050-332K	3300	0.252	30	1	60	40
WCF565050-392K	3900	0.252	30	1	70	38
WCF565050-472K	4700	0.252	30	0.9	78	36
WCF565050-562K	5600	0.252	30	0.8	85	33
WCF565050-682K	6800	0.252	30	0.7	110	30
WCF565050-822K	8200	0.252	30	0.6	125	28
WCF565050-103K	10000	0.0796	20	0.5	150	25



●GENERAL CHARACTERISTICS

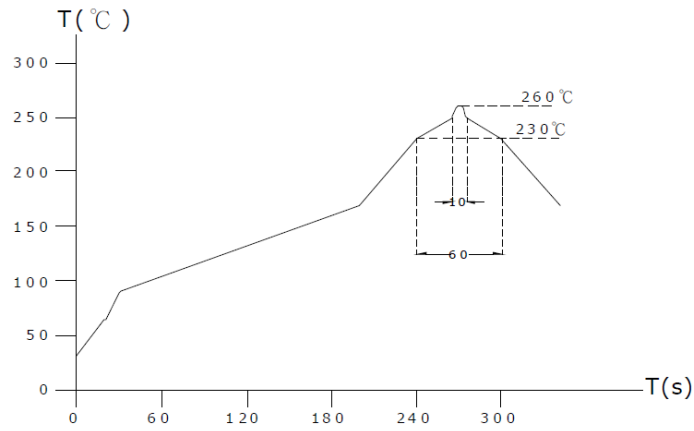
1. Operating temperature range  
-40 TO + 85°C (Includes temperature when the coil is heated)
2. External appearance  
On visual inspection, the coil has external defects.
3. Terminal strength  
After soldering. Between copper plate and terminals of coil.  
Push in two directions of X.Y withstanding at below conditions.  
Terminal should not peel off. (refer to figure at right) 0.5KG MIN .
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  
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/s<sup>2</sup> (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





●RELIABILITY TEST

Lead - free heat endurance test

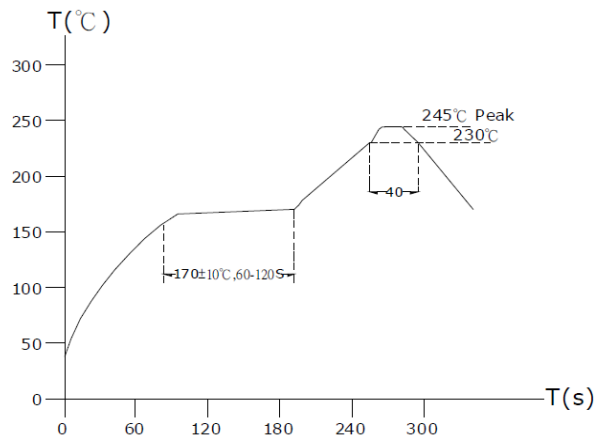


\*A test is made under the conditions mentioned above, and it is left for 2 hours in the normal temperature and humidity.

After that, no mechanical and electrical defect should be found.

\*The reflow condition is according to the in house machine.

Lead-free the recommended reflow condition



\*The reflow condition recommended above is according to the in house machine. Differences will arise as a result of the type of machine, reflow conditions, method ...etc.

Hence, before setting up your reflow conditions, please confirm with the above. Moreover, please clear all doubts with us before starting.