



●FEATURE

1. High frequency
2. Highest possible SRF as well as excellent Q values

●APPLICATION

1. Pager, Cordless phone and PDA
2. High freq. communication products



●ORDERING INFORMATION

WCM0402

PN

-1N0

Inductance

T

B : $\pm 0.2\text{nH}$

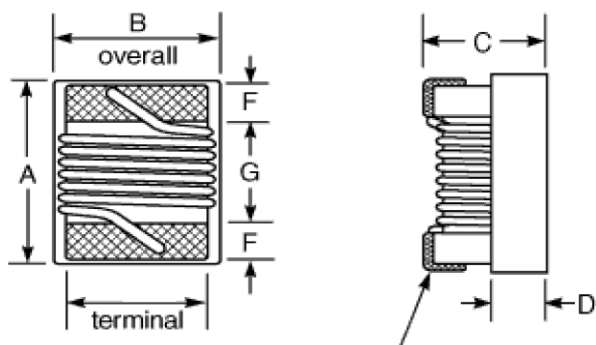
S : $\pm 0.3\text{nH}$

G : $\pm 2\%$

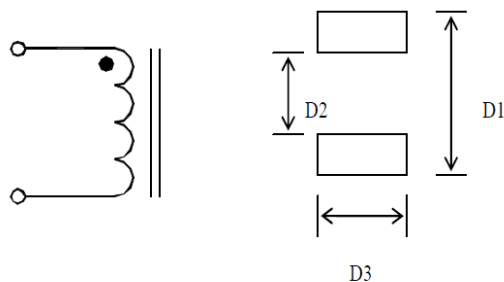
J : $\pm 5\%$

K : $\pm 10\%$

●SHAPE AND DIMENSION



●SCHEMATICS AND LAND PATTERNS(mm)



●SPECIFICATION

Dimension in mm

TYPE	A(Max)	B(Max)	C(Max)	D	F	G	D1	D2	D3
WCM0402C	1.19	0.64	0.66	0.25	0.23	0.64	1.20	0.46	0.68
WCM0603C	1.80	1.20	1.20	0.38	0.35	1.00	1.92	0.64	1.26
WCM0805C	2.40	1.60	1.40	0.51	0.44	1.45	2.80	0.76	1.78
WCM1008C	2.92	2.79	2.03	0.65	0.55	1.60	3.30	1.27	2.90

Note1. Measurement equipment of electrical : HP E4991A

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

Note3. Inductance tolerance: B: $\pm 0.2\text{nH}$; S: $\pm 0.3\text{nH}$; G: $\pm 2\%$; J: $\pm 5\%$; K: $\pm 10\%$

Note4. This specification might be changed without notice due to under developing and improving.



●ELECTRICAL CHARACTERISTICS

PART NUMBER	L(nH)/@MHz	Inductance tolerance	Q min @250MHz	SRF (MHz) min.	DCR (Ω Max)	IDC(mA) (Max)
WCM0402C-1N0T	1.0 / 250	B , S	13	6000	0.045	1360
WCM0402C-1N8T	1.8 / 250	B , S	16	6000	0.070	1040
WCM0402C-1N9T	1.9 / 250	B , S	16	6000	0.070	1040
WCM0402C-2N0T	2.0 / 250	B , S	16	6000	0.070	1040
WCM0402C-2N2T	2.2 / 250	B , S	18	6000	0.070	960
WCM0402C-2N4T	2.4 / 250	B , S	16	6000	0.068	790
WCM0402C-2N7T	2.7 / 250	B , S	18	6000	0.120	640
WCM0402C-3N3T	3.3 / 250	B , J , K	20	6000	0.066	840
WCM0402C-3N6T	3.6 / 250	B , J , K	20	6000	0.066	840
WCM0402C-3N9T	3.9 / 250	B , J , K	19	6000	0.066	840
WCM0402C-4N3T	4.3 / 250	B , J , K	18	6000	0.091	700
WCM0402C-4N7T	4.7 / 250	B , J , K	15	4775	0.130	640
WCM0402C-5N1T	5.1 / 250	B , J , K	23	5800	0.083	800
WCM0402C-5N6T	5.6 / 250	B , J , K	23	5800	0.083	760
WCM0402C-6N2T	6.2 / 250	B , J , K	23	5800	0.083	760
WCM0402C-6N8T	6.8 / 250	B , J , K	20	4800	0.083	680
WCM0402C-7N5T	7.5 / 250	B , J , K	25	5800	0.104	680
WCM0402C-8N2T	8.2 / 250	B , J , K	25	4400	0.104	680
WCM0402C-8N7T	8.7 / 250	B , J , K	18	4100	0.200	480
WCM0402C-9N0T	9.0 / 250	B , J , K	25	4160	0.104	680
WCM0402C-9N5T	9.5 / 250	B , J , K	18	4000	0.200	680
WCM0402C-10NT	10 / 250	G , J , K	23	3900	0.195	480
WCM0402C-11NT	11 / 250	G , J , K	26	3680	0.120	640
WCM0402C-12NT	12 / 250	G , J , K	26	3600	0.120	640
WCM0402C-13NT	13 / 250	G , J , K	24	3450	0.210	560
WCM0402C-15NT	15 / 250	G , J , K	26	3280	0.172	560
WCM0402C-16NT	16 / 250	G , J , K	24	3100	0.220	560
WCM0402C-18NT	18 / 250	G , J , K	25	3100	0.230	420
WCM0402C-19NT	19 / 250	G , J , K	26	3040	0.202	480
WCM0402C-20NT	20 / 250	G , J , K	25	3000	0.250	420
WCM0402C-22NT	22 / 250	G , J , K	25	2800	0.300	400
WCM0402C-23NT	23 / 250	G , J , K	26	2720	0.214	400
WCM0402C-24NT	24 / 250	G , J , K	25	2700	0.300	400
WCM0402C-27NT	27 / 250	G , J , K	26	2480	0.298	400
WCM0402C-30NT	30 / 250	G , J , K	25	2350	0.300	400



PART NUMBER	L(nH)/@MHz	Inductance tolerance	Q min @250MHz	SRF (MHz) min.	DCR (Ω Max)	IDC(mA) (Max)
WCM0402C-33NT	33 / 250	G , J , K	24	2350	0.350	400
WCM0402C-36NT	36 / 250	G , J , K	26	2500	0.403	320
WCM0402C-39NT	39 / 250	G , J , K	25	2100	0.550	320
WCM0402C-40NT	40 / 250	G , J , K	26	2240	0.438	320
WCM0402C-43NT	43 / 250	G , J , K	25	2030	0.810	230
WCM0402C-47NT	47 / 200	G , J , K	26	2100	0.830	210
WCM0402C-51NT	51 / 200	G , J	25	1750	0.820	210
WCM0402C-56NT	56 / 200	G , J	22	1760	0.970	200
WCM0402C-68NT	68 / 200	G , J	22	1620	1.120	180
WCM0402C-82NT	82 / 150	G , J	20	1500	1.250	150
WCM0402C-R10T	100 / 150	G , J	20	1300	2.520	120
WCM0402C-R12T	120 / 150	G , J	20	1100	2.660	110
WCM0603C-1N6T	1.6 / 250	B , S	24	12500	0.030	700
WCM0603C-1N8T	1.8 / 250	B , S	16	12500	0.045	700
WCM0603C-2N2T	2.2 / 250	B , S	13	12500	0.250	700
WCM0603C-3N3T	3.3 / 250	B , S	30	5900	0.045	700
WCM0603C-3N6T	3.6 / 250	B , S	22	5900	0.063	700
WCM0603C-3N9T	3.9 / 250	B , S	22	6900	0.080	700
WCM0603C-4N3T	4.3 / 250	B , S	22	5900	0.063	700
WCM0603C-4N7T	4.7 / 250	B , S	20	5800	0.085	700
WCM0603C-5N1T	5.1 / 250	S , J	20	5700	0.115	700
WCM0603C-5N6T	5.6 / 250	S , J	20	5800	0.160	700
WCM0603C-6N3T	6.3 / 250	J , K	26	5700	0.115	700
WCM0603C-6N8T	6.8 / 250	J , K	27	5800	0.125	700
WCM0603C-7N5T	7.5 / 250	J , K	28	4800	0.115	700
WCM0603C-8N2T	8.2 / 250	J , K	30	4700	0.125	700
WCM0603C-8N7T	8.7 / 250	J , K	28	4600	0.109	700
WCM0603C-9N1T	9.1 / 250	J , K	28	4600	0.120	700
WCM0603C-9N5T	9.5 / 250	G , J , K	28	5400	0.145	700
WCM0603C-10NT	10 / 250	G , J , K	31	4800	0.145	700
WCM0603C-11NT	11 / 250	G , J , K	30	4000	0.145	700
WCM0603C-12NT	12 / 250	G , J , K	35	4000	0.145	700
WCM0603C-15NT	15 / 250	G , J , K	35	4000	0.180	700



PART NUMBER	L(nH)/@MHz	Inductance tolerance	Q min / @MHz	SRF(MHz) min.	DCR (Ω Max)	IDC(mA) (Max)
WCM0603C-16NT	16 / 250	G , J , K	34 / 250	3300	0.170	700
WCM0603C-18NT	18 / 250	G , J , K	35 / 250	3100	0.180	700
WCM0603C-19NT	19 / 250	G , J , K	35 / 250	3000	0.190	700
WCM0603C-20NT	20 / 250	G , J , K	38 / 250	3000	0.180	700
WCM0603C-22NT	22 / 250	G , J , K	38 / 250	3000	0.205	700
WCM0603C-23NT	23 / 250	G , J , K	38 / 250	2850	0.205	700
WCM0603C-24NT	24 / 250	G , J , K	36 / 250	2650	0.205	700
WCM0603C-25NT	25 / 250	G , J , K	38 / 250	2800	0.210	600
WCM0603C-27NT	27 / 250	G , J , K	40 / 250	2800	0.220	600
WCM0603C-30NT	30 / 250	G , J , K	37 / 250	2250	0.220	600
WCM0603C-33NT	33 / 250	G , J , K	40 / 250	2300	0.240	600
WCM0603C-36NT	36 / 250	G , J , K	37 / 250	2080	0.250	600
WCM0603C-39NT	39 / 250	G , J , K	40 / 250	2200	0.260	600
WCM0603C-43NT	43 / 250	G , J , K	38 / 250	2000	0.280	600
WCM0603C-47NT	47 / 200	G , J , K	38 / 200	2000	0.280	600
WCM0603C-56NT	56 / 200	G , J , K	38 / 200	1900	0.310	600
WCM0603C-62NT	62 / 200	G , J , K	37 / 200	1800	0.330	600
WCM0603C-68NT	68 / 200	G , J , K	37 / 200	1700	0.340	600
WCM0603C-72NT	72 / 150	G , J , K	34 / 150	1700	0.490	400
WCM0603C-82NT	82 / 150	G , J , K	34 / 150	1700	0.540	400
WCM0603C-91NT	91 / 150	G , J , K	34 / 150	1500	0.560	400
WCM0603C-R10T	100 / 150	G , J , K	34 / 150	1400	0.580	400
WCM0603C-R11T	110 / 150	G , J , K	32 / 150	1350	0.610	300
WCM0603C-R12T	120 / 150	G , J , K	32 / 150	1300	0.650	300
WCM0603C-R15T	150 / 150	G , J , K	28 / 150	990	0.920	280
WCM0603C-R17T	170 / 100	G , J , K	25 / 100	990	1.150	240
WCM0603C-R18T	180 / 100	G , J , K	25 / 100	990	1.250	240
WCM0603C-R19T	190 / 100	G , J , K	25 / 100	990	1.350	200
WCM0603C-R20T	200 / 100	G , J , K	25 / 100	990	1.500	200
WCM0603C-R22T	220 / 100	G , J , K	25 / 100	900	1.600	250
WCM0603C-R27T	270 / 100	G , J , K	24 / 100	900	2.000	170
WCM0603C-R33T	330 / 100	G , J , K	25 / 100	900	2.750	100
WCM0603C-R34T	340 / 100	G , J , K	25 / 100	900	2.900	100
WCM0603C-R39T	390 / 100	G , J , K	25 / 100	900	3.150	100
WCM0603C-R47T	470 / 100	G , J , K	25 / 100	750	4.000	80



PART NUMBER	L(nH)/@MHz	Inductance tolerance	Q min / @MHz	SRF(MHz) min.	DCR (Ω Max)	IDC(mA) (Max)
WCM0805C-2N8T	2.8 / 250	B , S	55 / 1500	7900	0.06	800
WCM0805C-3N0T	3.0 / 250	B , S	55 / 1500	7900	0.08	800
WCM0805C-3N3T	3.3 / 250	B , S	45 / 1500	7900	0.12	600
WCM0805C-5N6T	5.6 / 250	B , S	65 / 1000	5500	0.08	600
WCM0805C-6N2T	6.2 / 250	B , S	50 / 1000	5500	0.11	600
WCM0805C-6N8T	6.8 / 250	J , K	50 / 1000	5500	0.11	600
WCM0805C-7N5T	7.5 / 250	J , K	50 / 1000	4500	0.14	600
WCM0805C-8N2T	8.2 / 250	J , K	50 / 1000	4700	0.16	600
WCM0805C-10NT	10 / 250	G , J , K	60 / 500	4200	0.10	600
WCM0805C-12NT	12 / 250	G , J , K	50 / 500	4000	0.15	600
WCM0805C-15NT	15 / 250	G , J , K	50 / 500	3400	0.17	600
WCM0805C-18NT	18 / 250	G , J , K	50 / 500	3300	0.20	600
WCM0805C-22NT	22 / 250	G , J , K	55 / 500	2600	0.22	500
WCM0805C-24NT	24 / 250	G , J , K	50 / 500	2000	0.22	500
WCM0805C-27NT	27 / 250	G , J , K	55 / 500	2500	0.25	500
WCM0805C-33NT	33 / 250	G , J , K	60 / 500	2050	0.27	500
WCM0805C-36NT	36 / 250	G , J , K	55 / 500	1700	0.27	500
WCM0805C-39NT	39 / 250	G , J , K	60 / 500	2000	0.29	500
WCM0805C-43NT	43 / 200	G , J , K	60 / 500	1650	0.34	500
WCM0805C-47NT	47 / 200	G , J , K	60 / 500	1650	0.31	500
WCM0805C-56NT	56 / 200	G , J , K	60 / 500	1550	0.34	500
WCM0805C-68NT	68 / 200	G , J , K	60 / 500	1450	0.38	500
WCM0805C-75NT	75 / 200	G , J , K	60 / 500	1400	0.40	400
WCM0805C-82NT	82 / 150	G , J , K	65 / 500	1300	0.42	400
WCM0805C-91NT	91 / 150	G , J , K	65 / 500	1200	0.48	400
WCM0805C-R10T	100 / 150	G , J , K	65 / 500	1200	0.46	400
WCM0805C-R11T	110 / 150	G , J , K	50 / 250	1000	0.48	400
WCM0805C-R12T	120 / 150	G , J , K	50 / 250	1100	0.51	400
WCM0805C-R15T	150 / 100	G , J , K	50 / 250	920	0.56	400
WCM0805C-R16T	160 / 100	G , J , K	50 / 250	900	0.60	400
WCM0805C-R18T	180 / 100	G , J , K	50 / 250	870	0.64	400
WCM0805C-R20T	200 / 100	G , J , K	50 / 250	865	0.68	400
WCM0805C-R22T	220 / 100	G , J , K	50 / 250	850	0.70	400
WCM0805C-R24T	240 / 100	G , J , K	44 / 250	690	1.00	350
WCM0805C-R25T	250 / 100	G , J , K	48 / 250	680	1.00	350



PART NUMBER	L(nH)/@MHz	Inductance tolerance	Q min / @MHz	SRF(MHz) min.	DCR (Ω Max)	IDC(mA) (Max)
WCM0805C-R27T	270 / 100	G , J , K	48 / 250	650	1.00	350
WCM0805C-R33T	330 / 100	G , J , K	48 / 250	750	1.40	310
WCM0805C-R39T	390 / 100	G , J , K	48 / 250	560	1.50	290
WCM0805C-R47T	470 / 50	G , J , K	30 / 100	375	1.76	250
WCM0805C-R56T	560 / 25	G , J , K	23 / 50	340	1.90	230
WCM0805C-R62T	620 / 25	G , J , K	23 / 50	220	2.20	210
WCM0805C-R68T	680 / 25	G , J , K	23 / 50	188	2.20	190
WCM0805C-R75T	750 / 25	G , J , K	23 / 50	200	2.30	180
WCM0805C-R82T	820 / 25	G , J , K	23 / 50	215	2.35	180
WCM0805C-1R0T	1000 / 25	G , J , K	22 / 50	200	2.45	180
WCM0805C-1R5T	1500 / 7.9	G , J , K	16 / 7.9	120	2.50	170
WCM0805C-1R8T	1800 / 7.9	G , J , K	16 / 7.9	80	2.50	170
WCM0805C-2R2T	2200 / 7.9	G , J , K	16 / 7.9	60	2.70	160
WCM0805C-2R7T	2700 / 7.9	G , J , K	16 / 7.9	50	3.80	160
WCM1008C-10NT	10 / 50	G , J , K	50 / 500	4100	0.08	1000
WCM1008C-12NT	12 / 50	G , J , K	50 / 500	3300	0.09	1000
WCM1008C-15NT	15 / 50	G , J , K	50 / 500	2500	0.16	1000
WCM1008C-18NT	18 / 50	G , J , K	50 / 350	2500	0.11	1000
WCM1008C-22NT	22 / 50	G , J , K	55 / 350	2400	0.12	1000
WCM1008C-27NT	27 / 50	G , J , K	50 / 350	1600	0.13	1000
WCM1008C-33NT	33 / 50	G , J , K	60 / 350	1600	0.14	1000
WCM1008C-39NT	39 / 50	G , J , K	60 / 350	1500	0.15	1000
WCM1008C-47NT	47 / 50	G , J , K	65 / 350	1500	0.16	1000
WCM1008C-56NT	56 / 50	G , J , K	65 / 350	1300	0.18	1000
WCM1008C-68NT	68 / 50	G , J , K	65 / 350	1300	0.20	1000
WCM1008C-82NT	82 / 50	G , J , K	60 / 350	1000	0.22	1000
WCM1008C-R10T	100 / 25	G , J , K	60 / 350	1000	0.56	650
WCM1008C-R12T	120 / 25	G , J , K	60 / 350	950	0.63	650
WCM1008C-R15T	150 / 25	G , J , K	45 / 100	850	0.70	580
WCM1008C-R18T	180 / 25	G , J , K	45 / 100	750	0.77	620
WCM1008C-R22T	220 / 25	G , J , K	45 / 100	700	0.84	500
WCM1008C-R27T	270 / 25	G , J , K	45 / 100	600	0.91	500
WCM1008C-R33T	330 / 25	G , J , K	45 / 100	570	1.05	450

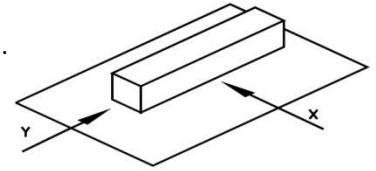


PART NUMBER	L(nH)/@MHz	Inductance tolerance	Q min / @MHz	SRF(MHz) min.	DCR (Ω Max)	IDC(mA) (Max)
WCM1008C-R39T	390 / 25	G , J , K	45 / 100	500	1.12	470
WCM1008C-R47T	470 / 25	G , J , K	45 / 100	450	1.19	470
WCM1008C-R56T	560 / 25	G , J , K	45 / 100	415	1.33	400
WCM1008C-R62T	620 / 25	G , J , K	45 / 100	375	1.40	300
WCM1008C-R68T	680 / 25	G , J , K	45 / 100	375	1.47	400
WCM1008C-R75T	750 / 25	G , J , K	45 / 100	360	1.54	360
WCM1008C-R82T	820 / 25	G , J , K	45 / 100	350	1.61	400
WCM1008C-R91T	910 / 25	G , J , K	35 / 50	320	1.68	380
WCM1008C-1R0T	1000 / 25	G , J , K	35 / 50	290	1.75	370
WCM1008C-1R2T	1200 / 7.9	G , J , K	30 / 50	250	2.00	310
WCM1008C-1R5T	1500 / 7.9	G , J , K	28 / 50	200	2.30	330
WCM1008C-1R8T	1800 / 7.9	G , J , K	28 / 50	160	2.60	300
WCM1008C-2R2T	2200 / 7.9	G , J , K	28 / 50	160	2.80	280
WCM1008C-2R7T	2700 / 7.9	G , J , K	22 / 25	135	3.20	290
WCM1008C-3R3T	3300 / 7.9	G , J , K	22 / 25	110	3.40	290
WCM1008C-3R9T	3900 / 7.9	G , J , K	20 / 25	100	3.60	260
WCM1008C-4R7T	4700 / 7.9	G , J , K	20 / 25	90	4.00	260
WCM1008C-5R6T	5600 / 7.9	G , J , K	18 / 7.9	40	4.20	240
WCM1008C-6R8T	6800 / 7.9	G , J , K	18 / 7.9	40	4.90	200
WCM1008C-8R2T	8200 / 7.9	G , J , K	18 / 7.9	25	6.00	170
WCM1008C-100T	10000 / 2.5	G , J , K	18 / 7.9	25	8.00	150

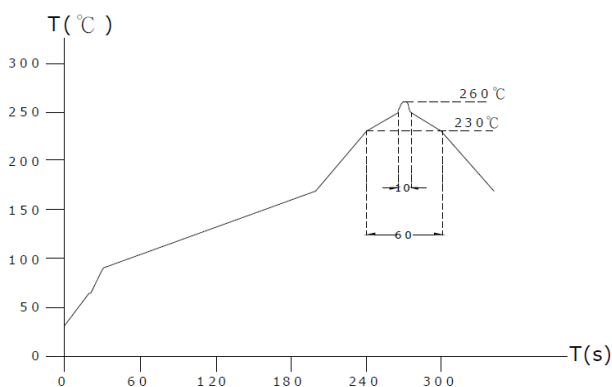


●GENERAL CHARACTERISTICS

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 $(0\sim2,000)\times10^{-6}/^{\circ}\text{C}$ (-25~+80°C).
7. Humidity characteristics(Moisture Resistance): Inductance deviation within $\pm5\%$, after 96 hours in 90~95% relative humidity at $40\pm2^{\circ}\text{C}$ and 1 hour drying under normal condition.
8. Vibration resistance: Inductance deviation within $\pm5\%$, 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 $\pm5\%$, 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 soldarability before use.
13. Reflow profile recommend:



Lead - free heat endurance test



Lead-free the recommended reflow condition

