

## SMD Wire Wound Chip Inductor (MGTC Series)

### FEATURES

- Ultra-small size exceptional Q and high SRFs make these inductors ideal for high frequency applications where size is at a premium
- Have excellent DCR and current carrying characteristic



### APPLICATIONS

- Cordless phone and high frequency communication products

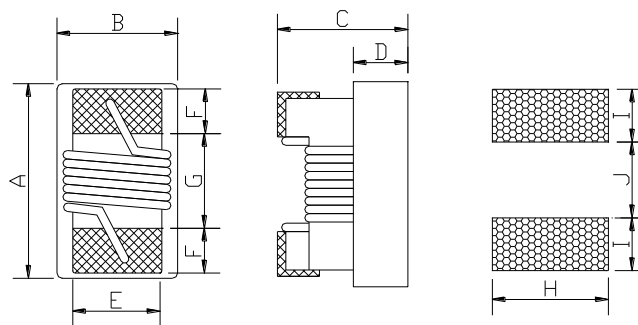
### Product Identification

**MGTC 0603 C W - 100 J S - I**

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

- ① Series name
- ② Dimensions: [0603 inch]
- ③ Base materials: [C: Ceramic]
- ④ Structure
- ⑤ Inductance: [1R0=1.0nH; 100=10nH; 101=100nH]
- ⑥ Tolerance of Inductance: [J:±5% K:±10%]
- ⑦ Termination materials [S; Sn]
- ⑧ Packing: (B: Bulk ; T: Tape and reel)

### Shapes And Dimensions



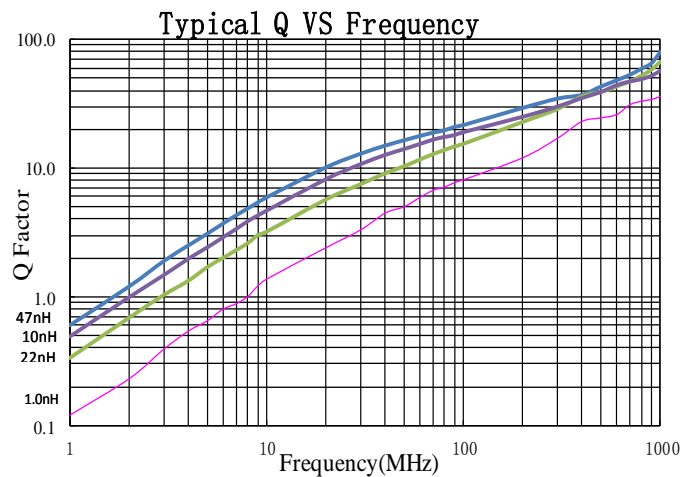
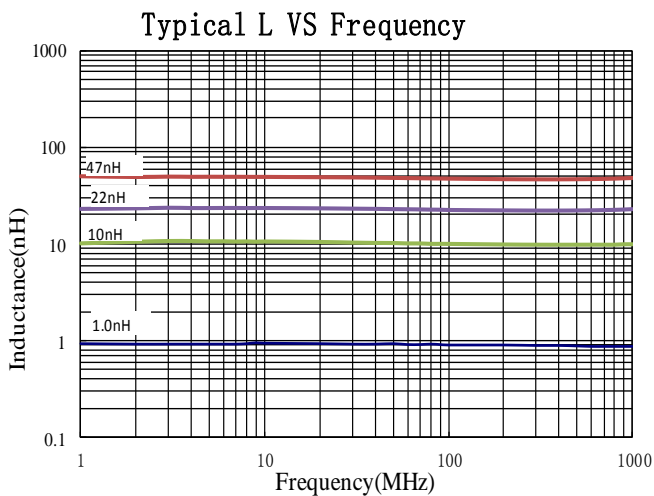
Series	Dimensions(mm) [inch]									
	A(max)	B(max)	C(max)	D	E	F	G	H	I	J
MGTC0402	1.2 [0.047]	0.66 [0.026]	0.66 [0.026]	0.25 [0.010]	0.51 [0.020]	0.23 [0.009]	0.56 [0.022]	0.66 [0.026]	0.36 [0.014]	0.46 [0.018]
MGTC0603	1.8 [0.071]	1.12 [0.044]	1.02 [0.040]	0.45 [0.017]	0.8 [0.031]	0.33 [0.013]	0.86 [0.034]	1.02 [0.040]	0.64 [0.025]	0.64 [0.025]
MGTC0805	2.3 [0.090]	1.73 [0.068]	1.52 [0.060]	0.65 [0.020]	1.27 [0.050]	0.51 [0.020]	1.02 [0.040]	1.78 [0.070]	1.02 [0.040]	0.76 [0.030]

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### Electrical Characteristics

#### MGTC0402CW Series

Part Number	L(nH)	Test Freq. @900MHz		L Test Freq. (MHz)	SRF Min (GHz)	DCR max. ( $\Omega$ )	Rated current (mA)
		Ltyp.	Qtyp.				
MGTC0402CW1R0_ST	1.0	1.02	26	250	12.7	0.045	1360
MGTC0402CW2R0_ST	2.0	1.93	30	250	11.1	0.070	1040
MGTC0402CW2R2_ST	2.2	2.19	32	250	10.8	0.070	960
MGTC0402CW3R3_ST	3.3	3.10	41	250	7.0	0.066	840
MGTC0402CW3R9_ST	3.9	3.89	41	250	6.0	0.066	840
MGTC0402CW4R7_ST	4.7	4.55	48	250	4.77	0.130	640
MGTC0402CW5R6_ST	5.6	5.16	46	250	4.80	0.083	760
MGTC0402CW6R8_ST	6.8	6.56	49	250	4.80	0.083	680
MGTC0402CW8R2_ST	8.2	8.50	49	250	4.40	0.100	680
MGTC0402CW100_ST	10	9.80	47	250	3.90	0.200	480
MGTC0402CW120_ST	12	11.9	51	250	3.60	0.120	640
MGTC0402CW150_ST	15	14.6	54	250	3.28	0.170	560
MGTC0402CW180_ST	18	18.3	50	250	3.10	0.230	420
MGTC0402CW220_ST	22	23.2	53	250	2.80	0.300	400
MGTC0402CW330_ST	33	34.9	31	250	2.35	0.300	400
MGTC0402CW390_ST	39	41.7	47	250	2.10	0.550	200
MGTC0402CW470_ST	47	50.0	38	250	2.10	0.830	150
MGTC0402CW560_ST	56	62.8	42	250	1.76	0.970	100
MGTC0402CW680_ST	68	78.2	36	250	1.62	1.12	100
MGTC0402CW820_ST	82	-	-	250	1.26	1.55	50
MGTC0402CW101_ST	100	-	-	250	1.16	2.00	30

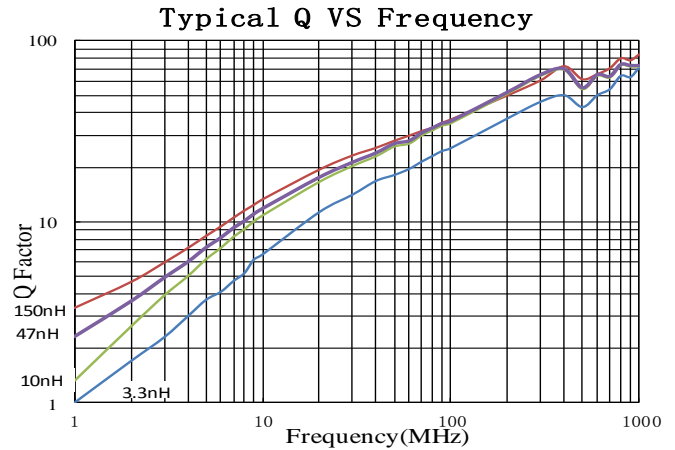
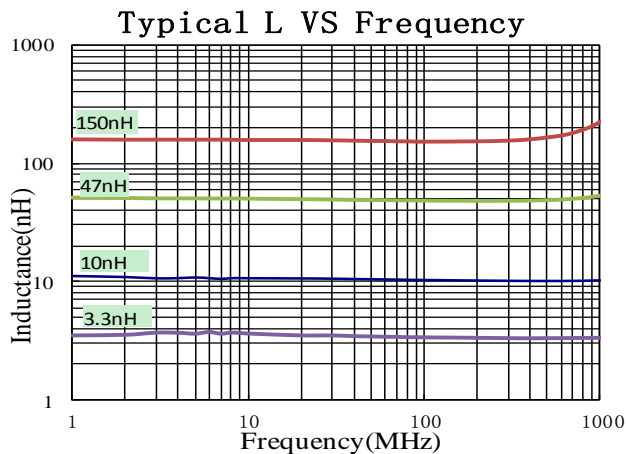


1. Please specify the inductance tolerance: -J=±5% K=±10%
2. Rated current: Average current for a 15°C rise above 25°C ambient.

## SMD Wire Wound Chip Inductor (MGTC Series)

### MGTC0603CW Series

Part Number	L (nH)	L Test Freq. (MHz)	Q (min.)	Q Test Freq. (MHz)	SRF min (GHz)	DCR max. (Ω)	Rated current (mA)
MGTC0603CW-1R8_ST	1.8	250	16	250	12.5	0.045	700
MGTC0603CW-2R2_ST	2.2	250	13	250	12.5	0.250	100
MGTC0603CW-3R3_ST	3.3	250	22	250	5.9	0.045	700
MGTC0603CW-3R9_ST	3.9	250	22	250	6.9	0.080	700
MGTC0603CW-4R7_ST	4.7	250	24	250	5.8	0.116	700
MGTC0603CW-5R6_ST	5.6	250	26	250	4.8	0.075	700
MGTC0603CW-6R8_ST	6.8	250	27	250	5.8	0.110	700
MGTC0603CW-8R2_ST	8.2	250	30	250	4.2	0.115	700
MGTC0603CW-100_ST	10	250	31	250	4.8	0.130	700
MGTC0603CW-120_ST	12	250	35	250	4.0	0.130	700
MGTC0603CW-150_ST	15	250	35	250	4.0	0.170	700
MGTC0603CW-180_ST	18	250	35	250	3.1	0.170	700
MGTC0603CW-220_ST	22	250	38	250	3.0	0.190	700
MGTC0603CW-270_ST	27	250	40	250	2.8	0.220	600
MGTC0603CW-330_ST	33	250	40	250	2.3	0.220	600
MGTC0603CW-390_ST	39	250	40	250	2.2	0.250	600
MGTC0603CW-470_ST	47	200	38	200	2.0	0.280	600
MGTC0603CW-560_ST	56	200	38	200	1.9	0.310	600
MGTC0603CW-680_ST	68	200	37	200	1.7	0.340	600
MGTC0603CW-820_ST	82	150	34	150	1.7	0.540	400
MGTC0603CW-101_ST	100	150	34	150	1.4	0.580	400
MGTC0603CW-121_ST	120	150	32	150	1.3	0.650	300
MGTC0603CW-151_ST	150	150	28	150	0.99	0.920	280
MGTC0603CW-181_ST	180	100	25	100	0.99	1.25	240
MGTC0603CW-221_ST	220	100	25	100	0.90	2.10	200
MGTC0603CW-271_ST	270	100	24	100	0.83	2.80	170
MGTC0603CW-331_ST	330	100	25	100	0.79	3.89	100
MGTC0603CW-391_ST	390	100	25	100	0.78	4.35	100
MGTC0603CW-471_ST	470	100	25	100	0.70	4.50	80

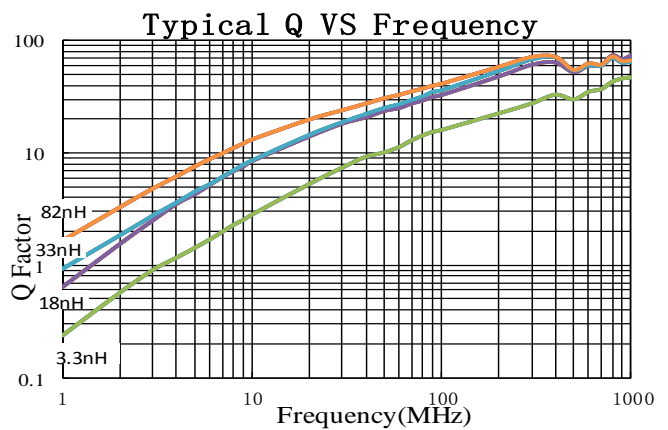
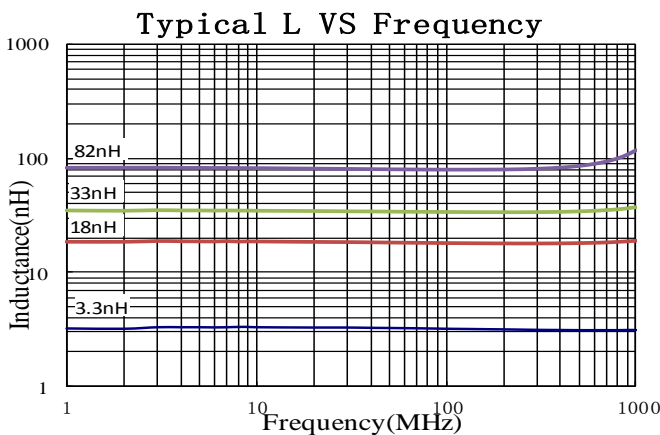


1. Please specify the inductance tolerance: J=±5% K=±10%
2. Rated current: Average current for a 15°C rise above 25°C ambient.

## SMD Wire Wound Chip Inductor (MGTC Series)

### MGTC0805CW Series

Part Number	L (nH)	L Test Freq. (MHz)	Q (min.)	Q Test Freq. (MHz)	SRF min (GHz)	DCR max. ( $\Omega$ )	Rated current (mA)
MGTC0805CW3R3_ST	3.3	250	50	1500	7.90	0.08	600
MGTC0805CW5R6_ST	5.6	250	65	1000	5.50	0.08	600
MGTC0805CW6R8_ST	6.8	250	50	1000	5.50	0.11	600
MGTC0805CW8R2_ST	8.2	250	50	1000	4.70	0.12	600
MGTC0805CW100_ST	10	250	60	500	4.20	0.10	600
MGTC0805CW120_ST	12	250	50	500	4.00	0.15	600
MGTC0805CW150_ST	15	250	50	500	3.40	0.17	600
MGTC0805CW180_ST	18	250	50	500	3.30	0.20	600
MGTC0805CW220_ST	22	250	55	500	2.60	0.22	500
MGTC0805CW270_ST	27	250	55	500	2.50	0.25	500
MGTC0805CW330_ST	33	250	60	500	2.05	0.27	500
MGTC0805CW390_ST	39	250	60	500	2.00	0.29	500
MGTC0805CW470_ST	47	200	60	500	1.65	0.31	500
MGTC0805CW560_ST	56	200	60	500	1.55	0.34	500
MGTC0805CW680_ST	68	200	60	500	1.45	0.38	500
MGTC0805CW820_ST	82	150	65	500	1.30	0.42	400
MGTC0805CW101_ST	100	150	65	500	1.20	0.46	400
MGTC0805CW121_ST	120	150	50	250	1.10	0.51	400
MGTC0805CW151_ST	150	100	50	250	0.92	0.56	400
MGTC0805CW181_ST	180	100	50	250	0.87	0.64	400
MGTC0805CW221_ST	220	100	50	250	0.85	0.70	400
MGTC0805CW271_ST	270	100	48	250	0.65	1.00	350
MGTC0805CW331_ST	330	100	48	250	0.60	1.40	310
MGTC0805CW391_ST	390	100	48	250	0.56	1.50	290
MGTC0805CW471_ST	470	50	33	100	0.38	1.76	250
MGTC0805CW561_ST	560	25	23	50	0.34	1.90	230
MGTC0805CW681_ST	680	25	23	50	0.188	2.20	190
MGTC0805CW821_ST	820	25	23	50	0.215	2.35	180



1. Please specify the inductance tolerance:  $J=\pm 5\%$   $K=\pm 10\%$
2. Rated current: Average current for a 15°C rise above 25°C ambient.