

CT Series



Due to accurate wire winding technology, these chip inductors are designed for filtering, impedance matching, resonance and choke circuits for RF designer. Both standard series custom designs are available.

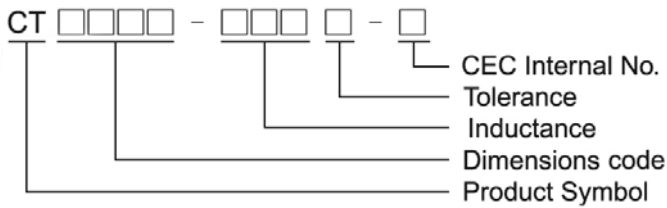
Features

- RoHS compliant.
- Ceramic body and wire wound construction provide highest SRFs
- Exceptional Q values even at high frequencies
- Highest possible SRFs as well as excellent Q values
- The non-magnetic coil form assures utmost thermal stability, predictability and batch consistency

Applications

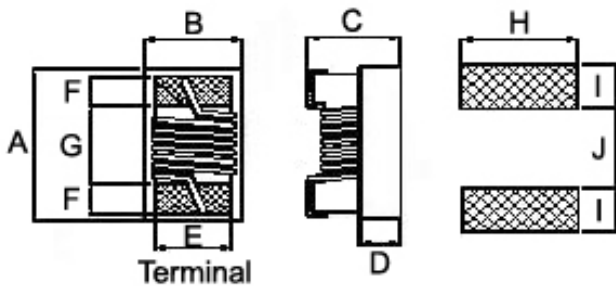
- RF products for cellular phone
- GPS receiver
- Base Station
- Repeater
- Wireless LAN/ mouse/ keyboard/ earphone
- Remote control
- Security system and other RF modules

Product Identification

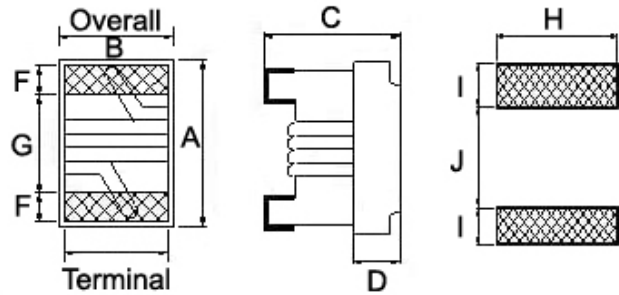


Shape and Dimensions/ Recommended Pattern

CT0603



CT0805



Dimensions

		A	B	C	D	E	F	G	H	I	J
CT0603	mm	1.6 ^{+0.2} _{-0.1}	0.9±0.1	0.55±0.05	0.25	0.76	0.30	0.92	1.02	0.64	0.64

		A Max	B Max	C Max	D	E	F	G	H	I	J
CT0805	inch	0.093	0.068	0.039	0.020	0.050	0.020	0.040	0.070	0.040	0.030
	mm	2.35	1.73	1.10	0.51	1.27	0.51	1.02	1.78	1.02	0.76

Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Min	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω) Max	Irms (mA) Max
CT0603-1N0□-N	1.0	10	250	13	250	16000	0.045	1600
CT0603-1N2□-N	1.2	10	250	12	250	16000	0.105	1100
CT0603-2N0□-N	2.0	5,10	250	21	250	12000	0.034	1900
CT0603-2N2□-N	2.2	5,10	250	21	250	10700	0.046	1600
CT0603-2N3□-N	2.3	5,10	250	25	250	11000	0.046	1600
CT0603-2N5□-N	2.5	5,10	250	20	250	11000	0.060	1300
CT0603-3N0□-N	3	5,10	250	25	250	10700	0.039	1600
CT0603-3N3□-N	3.3	3,5	250	26	250	7000	0.039	1600
CT0603-3N6□-N	3.6	3,5	250	28	250	7000	0.044	1600
CT0603-3N9□-N	3.9	3,5	250	26	250	6300	0.050	1400
CT0603-4N3□-N	4.3	3,5	250	22	250	6300	0.076	1300
CT0603-4N7□-N	4.7	3,5	250	22	250	5600	0.120	960
CT0603-5N1□-N	5.1	3,5	250	24	250	5500	0.050	1400
CT0603-5N6□-N	5.6	3,5	250	27	250	5050	0.058	1300
CT0603-6N8□-N	6.8	3,5	250	24	250	4500	0.080	1200
CT0603-7N2□-N	7.2	3,5	250	29	250	4500	0.047	1500
CT0603-8N2□-N	8.2	3,5	250	27	250	4250	0.075	1300
CT0603-9N5□-N	9.5	3,5	250	27	250	3950	0.092	1100
CT0603-10N□-N	10	2,5	250	27	250	3950	0.075	1300
CT0603-11N□-N	11	2,5	250	26	250	4000	0.110	1000
CT0603-12N□-N	12	2,5	250	28	250	3500	0.130	920
CT0603-15N□-N	15	2,5	250	26	250	3300	0.145	800
CT0603-16N□-N	16	2,5	250	26	250	3100	0.175	760
CT0603-18N□-N	18	2,5	250	26	250	2950	0.200	720
CT0603-20N□-N	20	2,5	250	28	250	2900	0.175	760
CT0603-22N□-N	22	2,5	250	28	250	2750	0.220	700
CT0603-24N□-N	24	2,5	250	29	250	2700	0.240	680
CT0603-27N□-N	27	2,5	250	27	250	2550	0.270	670
CT0603-30N□-N	30	2,5	250	27	250	2450	0.330	600
CT0603-33N□-N	33	2,5	250	27	250	2200	0.330	600
CT0603-36N□-N	36	2,5	250	28	250	2300	0.335	600
CT0603-39N□-N	39	2,5	250	28	250	2250	0.400	570
CT0603-43N□-N	43	2,5	250	27	250	2100	0.440	530
CT0603-47N□-N	47	2,5	250	27	250	1900	0.540	470
CT0603-51N□-N	51	2,5	250	26	250	1850	0.570	440
CT0603-56N□-N	56	2,5	250	26	250	1750	0.700	420

Note: When ordering, please specify tolerance code. Tolerance : G=±2% , H=±3% , J=±5% , K=±10%

- Operating temperature range - 40°C ~ 125°C(Including self - temperature rise)
- Irms for a 15°C temperature rise from 25°C ambient with current
- Measure Equipment :
 L & Q : Agilent E4991A+Agilent HP16197A
 SRF : Agilent/HP8753D/Agilent E4991A
 RDC: HP4338B or CHEN HWA 502
 Irms : HP4284A+HP42841A/HP4285A+HP42841A

Electrical Characteristics

Part Number	Inductance (nH)	Tolerance (±%)	Test Frequency (MHz)	Q Min	Test Frequency (MHz)	SRF (MHz) Min	RDC (Ω) Max	Irms (mA) Max	Color
CT0805-1N8□-S	1.8	10	250	55	1500	9400	0.03	800	Black
CT0805-3N9□-S	3.9	10	250	50	1000	6100	0.06	800	Brown
CT0805-4N7□-S	4.7	10 / 5	250	50	1000	5500	0.06	800	Red
CT0805-6N8□-S	6.8	10 / 5	250	50	1000	5500	0.08	800	Orange
CT0805-8N2□-S	8.2	10 / 5	250	50	1000	4800	0.08	800	Yellow
CT0805-10N□-S	10	10 / 5 / 2	250	55	750	3300	0.08	800	Green
CT0805-12N□-S	12	10 / 5 / 2	250	55	750	3800	0.10	800	Blue
CT0805-15N□-S	15	10 / 5 / 2	250	50	500	2950	0.10	800	Violet
CT0805-18N□-S	18	10 / 5 / 2	250	50	500	3100	0.13	800	Gray
CT0805-22N□-S	22	10 / 5 / 2	250	50	500	2900	0.15	800	White
CT0805-27N□-S	27	10 / 5 / 2	250	50	500	2450	0.23	600	Black
CT0805-33N□-S	33	10 / 5 / 2	250	55	500	2350	0.28	600	Brown
CT0805-39N□-S	39	10 / 5 / 2	250	55	500	2200	0.33	600	Red
CT0805-47N□-S	47	10 / 5 / 2	200	50	500	2000	0.39	600	Orange
CT0805-56N□-S	56	10 / 5 / 2	200	50	500	1850	0.39	500	Yellow
CT0805-68N□-S	68	10 / 5 / 2	200	50	500	1500	0.40	500	Green
CT0805-82N□-S	82	10 / 5 / 2	150	50	500	1500	0.44	500	Blue
CT0805-R10□-S	100	10 / 5 / 2	150	50	500	1200	0.64	400	Violet
CT0805-R12□-S	120	10 / 5 / 2	150	40	250	1150	0.68	300	Gray
CT0805-R15□-S	150	10 / 5 / 2	150	40	250	1050	0.80	300	White
CT0805-R18□-S	180	10 / 5 / 2	150	40	250	950	0.90	300	Black
CT0805-R22□-S	220	10 / 5 / 2	150	40	250	900	0.98	300	Brown
CT0805-R27□-S	270	10 / 5 / 2	150	40	250	850	1.30	300	Red
CT0805-R33□-S	330	10 / 5 / 2	100	40	250	800	1.45	300	Orange
CT0805-R39□-S	390	10 / 5 / 2	100	35	250	700	1.60	300	Yellow
CT0805-R47□-S	470	10 / 5 / 2	50	25	100	600	1.80	300	Green
CT0805-R56□-S	560	10 / 5 / 2	25	18	50	550	1.90	300	Blue
CT0805-R62□-S	620	10 / 5 / 2	25	18	50	450	2.00	300	Violet
CT0805-R68□-S	680	10 / 5 / 2	25	18	50	420	2.10	300	Gray
CT0805-R75□-S	750	10 / 5 / 2	25	18	50	400	2.20	300	White
CT0805-R82□-S	820	10 / 5 / 2	25	18	50	400	2.50	300	Black
CT0805-1R0□-S	1000	10 / 5	25	17	50	330	3.10	300	Brown

Note: When ordering, please specify tolerance code. Tolerance : G=±2% , J=±5% , K=±10%

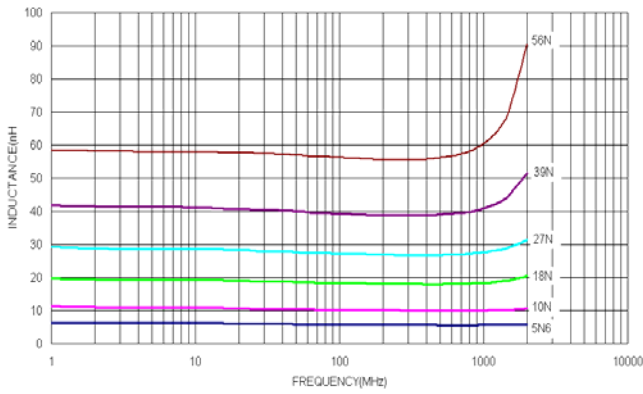
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SMD Wire Wound Ceramic Chip Inductors - CT Series

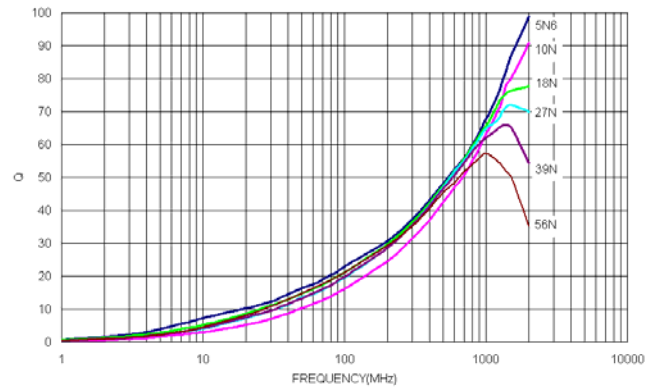
Test Instruments : Agilent E4991A Material/Impedance Analyzer

CT0603

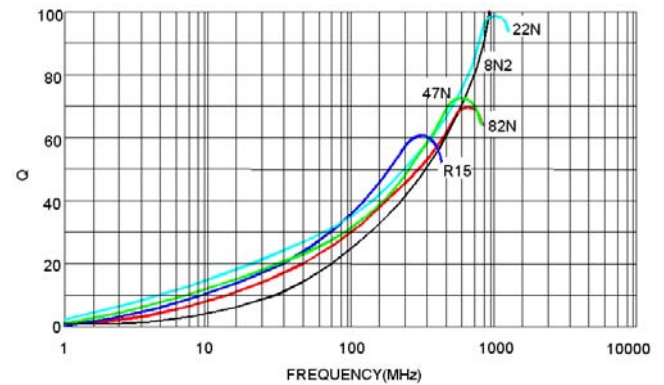
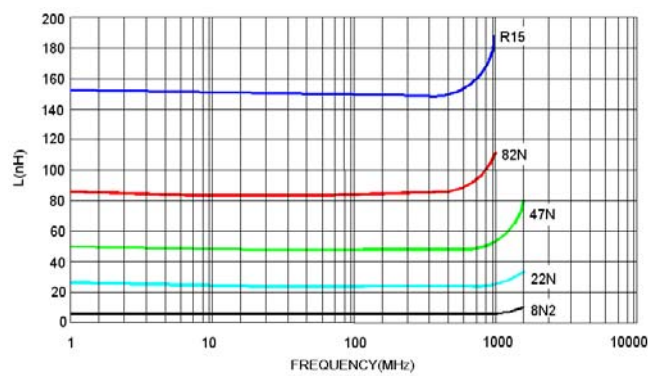
Typical **L** vs. **F** Frequency



Typical **Q** vs. **F** Frequency



CT0805

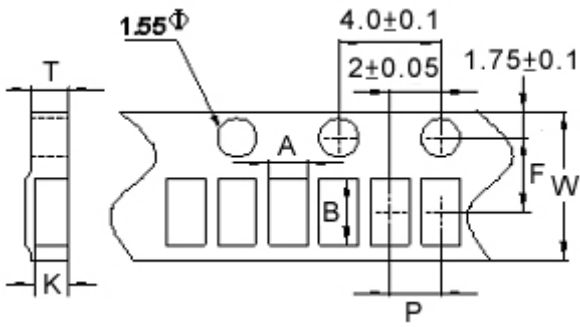


Please be sure to request approval specifications that provide further details of the products. Kindly note that the content of these specifications are subject to change or may be discontinued without advance notice. Please contact our sales department before ordering.

Packaging Specifications

Tape Dimensions

Figure 1



Tape Material

Carrier Tape: Polycarbonate
Cover Tape: Polystyrene

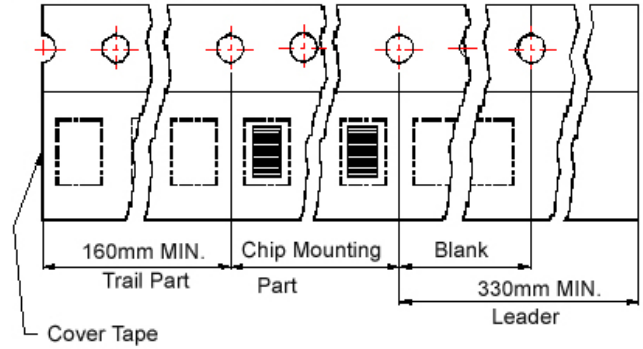
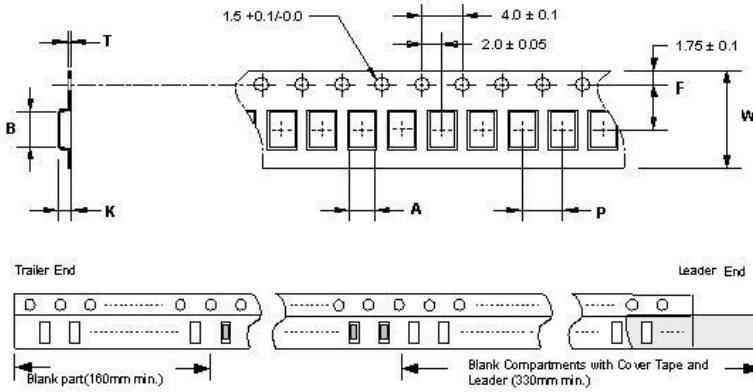
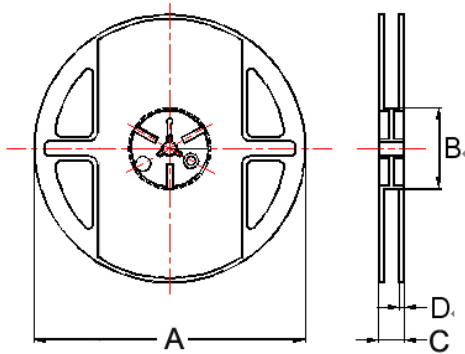


Figure 2



Reel Dimensions



Dimensions in mm

TYPE	Fig.	Tape Dimensions							Reel Dimensions				Quantity PCS / Reel
		A	B	T	W	P	F	K	A	B	C	D	
CT0603	1	1.05	1.80	0.75	8	4	3.5	0.60	178	60	12	1.5	4000
CT0805	2	1.85	2.45	0.23	8	4	3.5	1.10	178	60	12	1.5	2000