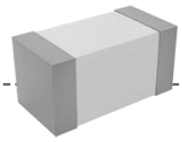
Multilayer Chip Ceramic Inductors-CH Series



FEATURES

- Monolithic Structure for high reliability, Small size inductor.
- High self-resonant frequency.
- Ecellent solderability and high heat resistance, High Q factor.
- OPERATING TEMP: -55℃ ~ +125℃

APPLICATIONS

- Moblie communication equipment terminal, High frequency circuit, intermediate increase circuit, RF circuit in telecommunication and other equipments.

PRODUCT IDENTIFICATION

01	02		03	04	05	06	07
ZCH	1608	—	H	4N7	J	T	(f)

01

TyPe	
ZCH	Chip Ceramic Inductor

02

External Dimensions (LxW)(mm)	
0402	0.4x 0.2
0603 [0201]	0.6x 0.3
1005[0402]	1.0 x 0.5
1608 [0603]	1.6 x 0.8
2012 [0805]	2.0 x 1.25

03

Performance Code
H,G

04

Tolerance	
S	±0.3nH
D	±0.5nH
J	±5%
K	±10%

05

Nominal Inductance	
Example	Nominal value
4N7	4.7nH
47N	47nH
R47	470nH

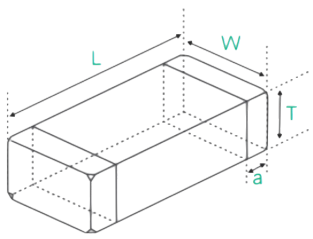
06

Packing	
T	Tape & Reel

07

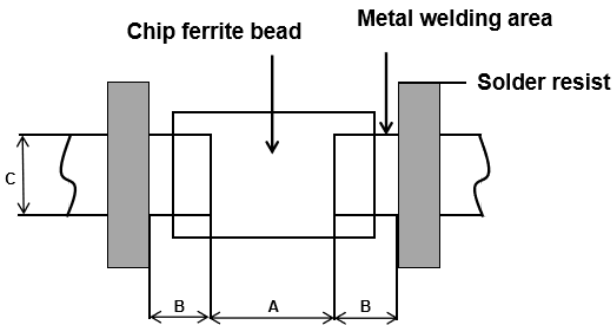
Hazardous Substance Free Products
(f)

SHAPE AND DIMENSIONS



Part Number	Dimensions(mm)			
	L	W	T	a
ZCH0402	0.4±0.02	0.2±0.02	0.2±0.02	0.08±0.025
ZCH0603[0201]	0.6±0.03	0.3±0.03	0.3±0.03	0.15±0.05
ZCIH1005[0402]	1.0±0.05	0.5±0.05	0.5±0.05	0.25±0.10
ZCH1608 [0603]	1.6±0.15	0.8±0.15	0.8±0.15	0.3±0.2
ZCH2012 [0805]	2.0±0.2	1.2±0.2	0.9±0.2	0.5±0.3

RECOMMENDED PC BOARD PATTERN



Part Number	Dimensions(mm)		
	A	B	C
CH0402	0.25	0.2	0.2
CH0603	0.3	0.25	0.3
CH1005	0.35	0.6	0.6
CH1608	0.6	1.0	0.8
CH2012	1.0	1.0	1.0

SPECIFICATIONS

● ZCH0402 TYPE

Part Number	Inductance (nH)	Tolerance	Qmin	L Q Test condition (MHz/V)	SRFmin(MHz)	DCR Max(Ω)	Rated Current Max（mA）
CH0402H1N0	1.0	S、D	8	500/0.05	10000	0.4	350
CH0402H1N2	1.2	S、D	8	500/0.05	10000	0.4	250
CH0402H1N5	1.5	S、D	8	500/0.05	10000	0.4	220
CH0402H1N8	1.8	S、D	8	500/0.05	10000	0.5	220
CH0402H2N2	2.2	S、D	8	500/0.05	9000	0.5	200
CH0402H2N7	2.7	S、D	8	500/0.05	7000	0.6	200
CH0402H3N0	3.0	S、D	8	500/0.05	7000	0.9	200
CH0402H3N3	3.3	S、D	14	500/0.05	7000	0.9	180
CH0402H3N9	3.9	S、D	14	500/0.05	6000	1.0	180
CH0402H4N7	4.7	S、D	14	500/0.05	5000	1.2	160
CH0402H5N6	5.6	S、D	14	500/0.05	5000	1.5	140

Part Number	Inductance (nH)	Tolerance	Qmin	L Q Test condition (MHz/V)	SRFmin(MHz)	DCR Max(Ω)	Rated Current Max（mA）
CH0402H6N8	6.8	J、K	14	500/0.05	4500	1.8	140
CH0402H8N2	8.2	J、K	14	500/0.05	4000	2.0	140
CH0402H10N	10	J、K	14	500/0.05	3600	2.0	140
CH0402H15N	15	J、K	14	500/0.05	3000	3.0	140
CH0402H18N	18	J、K	14	500/0.05	2300	3.2	140
CH0402H20N	20	J、K	14	500/0.05	2200	4.5	130

● ZCH0603 TYPE

Part Number	Inductance (nH)	Tolerance	Qmin	L Q Test condition (MHz/V)	SRFmin(MHz)	DCR Max(Ω)	Rated Current Max（mA）
CH0603H1NO	1.0	S、D	14	500/0.05	10000	0.07	800
CH0603H1N2	1.2	S、D	14	500/0.05	10000	0.10	800
CH0603H1N5	1.5	S、D	14	500/0.05	10000	0.10	650
CH0603H1N8	1.8	S、D	14	500/0.05	10000	0.15	650
CH0603H2N2	2.2	S、D	14	500/0.05	7500	0.15	650
CH0603H2N7	2.7	S、D	14	500/0.05	7500	0.20	550
CH0603H3N3	3.3	S、D	14	500/0.05	7500	0.25	450
CH0603H3N9	3.9	S、D	14	500/0.05	6500	0.25	400
CH0603H4N7	4.7	S、D	14	500/0.05	6000	0.40	350
CH0603H5N6	5.6	S、D	14	500/0.05	5000	0.40	350
CH0603H6N8	6.8	J、K	14	500/0.05	4500	0.50	300
CH0603H8N2	8.2	J、K	14	500/0.05	4000	0.50	250
CH0603H10N	10	J、K	14	500/0.05	4000	0.70	250

● ZCH1005 TYPE

Part Number	Inductance (nH)	Tolerance	Qmin	L Q Test condition (MHz/V)	SRFmin(MHz)	DCR Max(Ω)	Rated Current Max（mA）
CH1005G1NO	1.0	S、D	8	100/0.05	10000	0.06	1000
CH1005G1N2	1.2	S、D	8	100/0.05	10000	0.07	1000
CH1005G1N5	1.5	S、D	8	100/0.05	6000	0.08	1000
CH1005G1N8	1.8	S、D	8	100/0.05	6000	0.08	900
CH1005G2N4	2.4	S、D	8	100/0.05	6000	0.10	800
CH1005G2N7	2.7	S、D	8	100/0.05	6000	0.12	800
CH1005G3N3	3.3	S、D	10	100/0.05	6000	0.13	800
CH1005G3N9	3.9	S、D	10	100/0.05	4000	0.16	700
CH1005G4N7	4.7	S、D	10	100/0.05	4000	0.16	700
CH1005G5N6	5.6	S、D	10	100/0.05	4000	0.20	600
CH1005G6N8	6.8	J、K	10	100/0.05	3900	0.20	600
CH1005G8N2	8.2	J、K	10	100/0.05	3600	0.24	500
CH1005G10N	10	J、K	10	100/0.05	3200	0.26	500
CH1005G12N	12	J、K	12	100/0.05	3000	0.45	300
CH1005G15N	15	J. K	12	100/0.05	2300	0.50	300
CH1005G18N	18	J. K	12	100/0.05	2200	0.55	300
CH1005G22N	22	J、K	12	100/0.05	2000	0.60	300
CH1005G27N	27	J、K	12	100/0.05	1700	0.65	300
CH1005G33N	33	J、K	12	100/0.05	1500	0.70	300
CH1005G39N	39	J、K	12	100/0.05	1400	0.70	300
CH1005G47N	47	J、K	12	100/0.05	1200	0.70	300
CH1005G56N	56	J、K	12	100/0.05	1100	0.75	300
CH1005G68N	68	J. K	12	100/0.05	900	0.85	300
CH1005G82N	82	J、K	8	100/0.05	800	1.00	300
CH1005GR10	100	J. K	8	100/0.05	700	1.20	300
CH1005GR15	150	J. K	8	100/0.05	500	1.60	200
CH1005GR18	180	J. K	8	100/0.05	400	1.90	200
CH1005GR22	220	J. K	8	100/0.05	350	2.40	200
CH1005GR33	330	J. K	8	100/0.05	350	2.80	150
CH1005GR47	470	J. K	8	100/0.05	250	3.60	150

● ZCH1608 TYPE

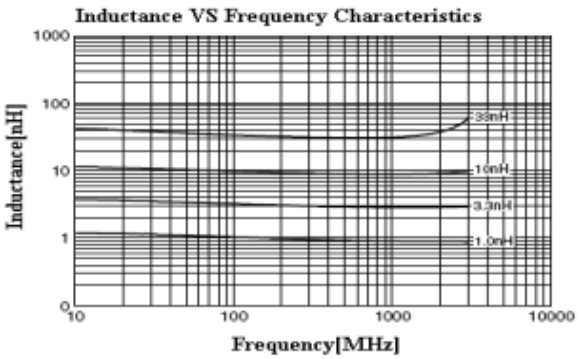
Part Number	Inductance (nH)	Tolerance	Qmin	L Q Test condition (MHz/V)	SRFmin(MHz)	DCR Max(Ω)	Rated Current Max（mA）
CH1608H1NO	1.0	S	8	100/0.05	10000	0.05	500
CH1608H1N2	1.2	S	8	100/0.05	10000	0.10	500
CH1608H1N5	1.5	S	8	100/0.05	6000	0.10	500
CH1608H1N8	1.8	S	8	100/0.05	6000	0.12	500
CH1608H2N2	2.2	S	8	100/0.05	6000	0.16	500
CH1608H2N7	2.7	S	8	100/0.05	6000	0.20	500
CH1608H3N3	3.3	S	8	100/0.05	6000	0.22	500
CH1608H3N9	3.9	S	8	100/0.05	6000	0.25	500
CH1608H4N7	4.7	S、D	8	100/0.05	6000	0.28	500
CH1608H5N6	5.6	S、D	8	100/0.05	5000	0.30	500
CH1608H6N8	6.8	S、D	8	100/0.05	5000	0.30	500
CH1608H8N2	8.2	S、D	8	100/0.05	4500	0.30	500
CH1608H10N	10	J、K	8	100/0.05	3500	0.40	300
CH1608H12N	12	J、K	8	100/0.05	2800	0.45	300
CH1608H15N	15	J、K	8	100/0.05	2300	0.45	300
CH1608H18N	18	J、K	8	100/0.05	2200	0.50	300
CH1608H22N	22	J、K	8	100/0.05	2000	0.55	300
CH1608H27N	27	J、K	8	100/0.05	1700	0.60	300
CH1608H33N	33	J、K	8	100/0.05	1500	0.65	300
CH1608H39N	39	J、K	8	100/0.05	1400	0.70	300
CH1608H47N	47	J、K	8	100/0.05	1200	1.00	300
CH1608H56N	56	J、K	8	100/0.05	1000	1.00	300
CH1608H68N	68	J、K	8	100/0.05	900	1.00	300
CH1608H82N	82	J、K	8	100/0.05	800	1.00	300
CH1608HR10	100	J、K	8	100/0.05	700	1.00	300
CH1608HR12	120	J、K	8	100/0.05	600	1.20	300
CH1608HR15	150	J、K	8	100/0.05	500	1.20	300
CH1608HR18	180	J、K	8	100/0.05	400	1.40	300
CH1608HR22	220	J、K	8	100/0.05	350	1.50	300
CH1608HR27	270	J、K	8	100/0.05	300	1.80	300

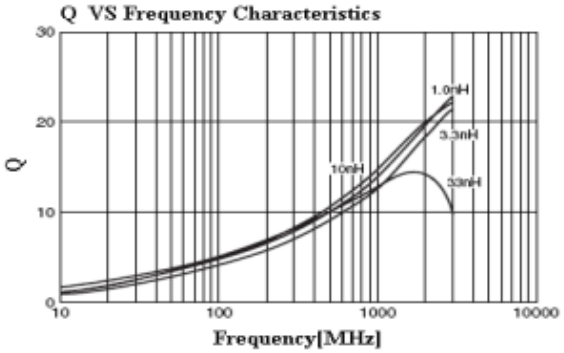
● ZCH2012 TYPE

Part Number	Inductance (nH)	Tolerance	Qmin	L Q Test condition (MHz/V)	SRFmin(MHz)	DCR Max(Ω)	Rated Current Max（mA）
CH2012H1NO	1.0	s	10	100/0.05	6000	0.10	500
CH2012H1N2	1.2	S	10	100/0.05	6000	0.10	500
CH2012H1N5	1.5	s	10	100/0.05	6000	0.10	500
CH2012H1N8	1.8	S	10	100/0.05	6000	0.10	500
CH2012H2N2	2.2	S	10	100/0.05	6000	0.10	500
CH2012H2N7	2.7	s	10	100/0.05	6000	0.10	500
CH2012H3N3	3.3	S	10	100/0.05	6000	0.13	500
CH2012H4N7	4.7	S、D	10	100/0.05	4500	0.20	400
CH2012H5N6	5.6	S、D	10	100/0.05	4000	0.23	400
CH2012H6N8	6.8	S、D	10	100/0.05	3650	0.25	400
CH2012H8N2	8.2	S、D	10	100/0.05	3000	0.28	400
CH2012H10N	10	J、K	10	100/0.05	2500	0.30	300
CH2012H12N	12	J、K	10	100/0.05	2400	0.35	300
CH2012H15N	15	J、K	10	100/0.05	2000	0.40	300
CH2012H18N	18	J、K	10	100/0.05	1750	0.45	300
CH2012H22N	22	J、K	10	100/0.05	1700	0.50	300
CH2012H27N	27	J、K	10	100/0.05	1550	0.55	300
CH2012H33N	33	J、K	10	100/0.05	1350	0.60	300
CH2012H39N	39	J、K	13	100/0.05	1300	0.65	300
CH2012H47N	47	J、K	15	100/0.05	1200	0.70	300
CH2012H56N	56	J、K	15	100/0.05	1150	0.75	300
CH2012H68N	68	J、K	15	100/0.05	1000	0.80	300
CH2012H82N	82	J、K	15	100/0.05	750	0.90	300
CH2012HR10	100	J、K	15	100/0.05	600	1.00	300
CH2012HR15	150	J、K	15	100/0.05	500	1.50	300
CH2012HR18	180	J、K	15	100/0.05	400	2.10	300
CH2012HR22	220	J、K	13	100/0.05	350	2.10	300
CH2012HR33	330	J、K	12		250	3.00	200
CH2012HR39	390	J、K	12		250	3.50	200
CH2012HR47	470	J、K	12		200	3.50	200

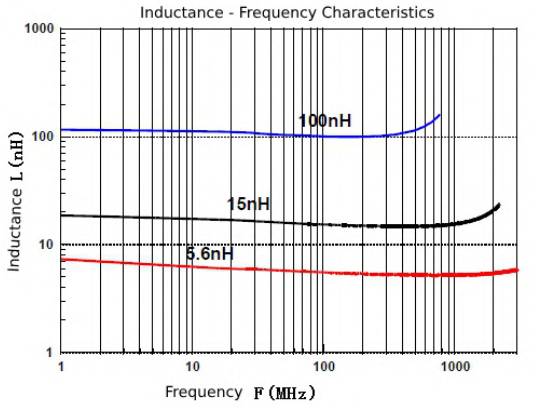
DETAIL ELECTRICAL CHARACTERISTICS

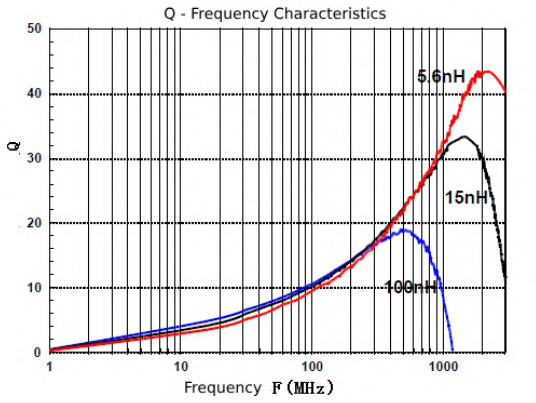
- ZCH0603



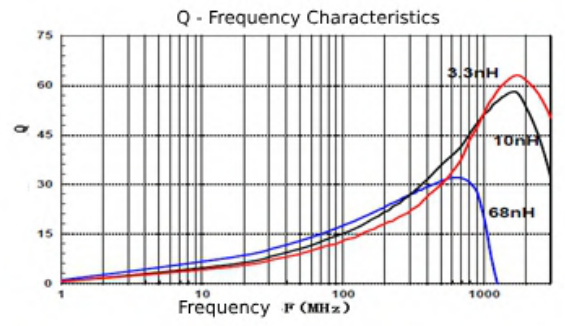


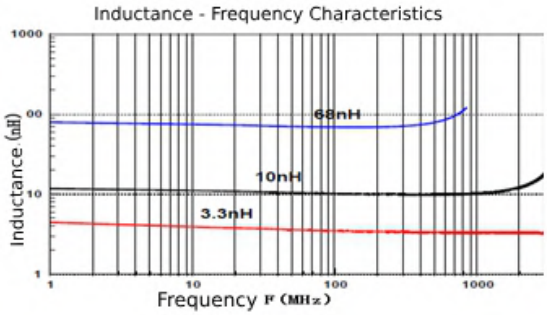
- ZCH1005



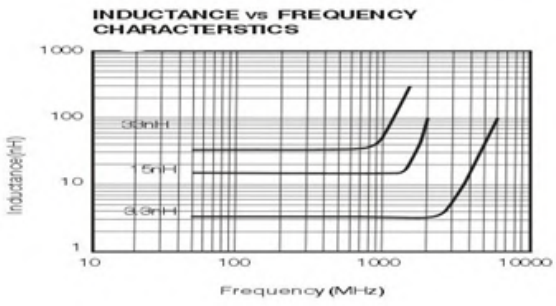


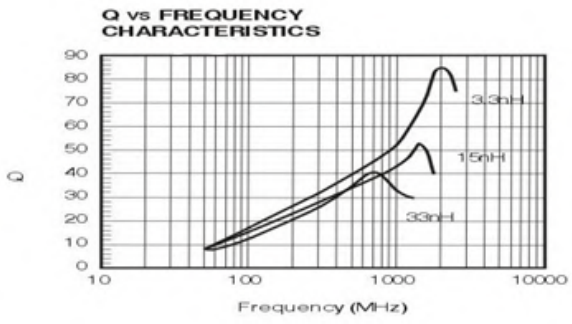
- ZCH1608





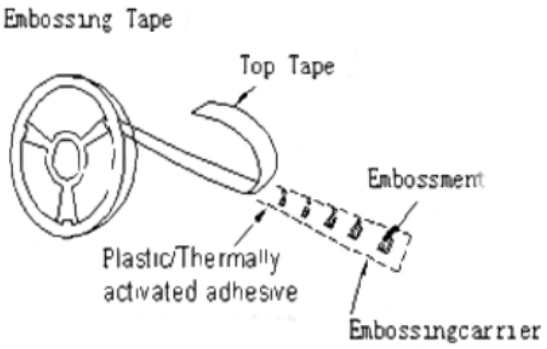
- ZCH2012

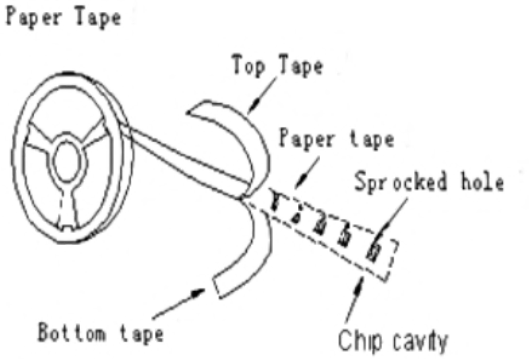




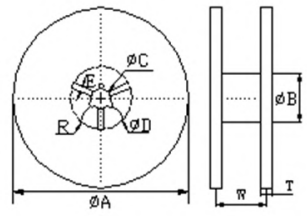
PACKAING STYLE

- **Taping Material**





- **Reel Dimensions(mm)**



Tape Width	A	B	C	D	E	W	T	R
8mm	178±2	60±1	13±0.5	21±0.8	2±0.5	10±1	1.5±0.5	1
12mm	178±2	60±1	13±0.5	21±0.8	2±0.5	14±1	1.5±0.5	1

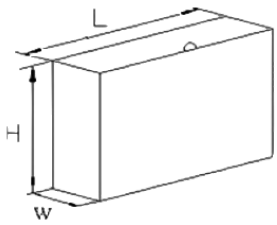
STORAGE

- **Quantity**

Type	PCS/REEL	PCS/INNERBOX	PCS/OUTERBOX
0603	10000	50000	250000
1005	10000	50000	250000
1608	4000	20000	100000
2012	4000	20000	100000

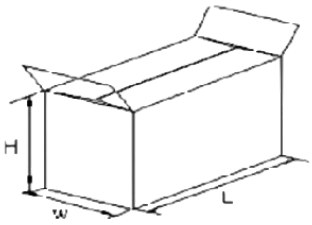
- **Packing Dimensions(mm)**

Inner Box Dimensions



L	W	H	THICK
180±3	70±3	190±3	2±0.8

Outer Box Dimensions



L	W	H	THICK
370±3	200±3	210±3	2±0.8

- **Storage**

Please be sure to the parts at 40**℃**,or less ,70%RH or less,and isolate the parts from sulphic and chloric atmosphere.