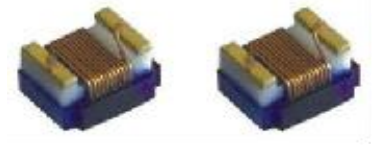




WIRE WOUND CHIP CERAMIC INDUCTOR 高频片式陶瓷绕线电感

● FEATURES 特性

1. High Q value and high self-resonant frequency with ceramic material.
高Q值高SRF的陶瓷材料.
2. Small chip suitable for surface mounting.
小尺寸，表面贴装.
3. Tight inductance tolerance and high reliability.
高精度，高可靠性.



陶瓷 (Ceramic)

● APPLICATIONS 用途

1. Mobile phone TD-LTE/5G communication. 移动电话，TD-LTE，5G通讯.
2. High frequency circuit in communication equipments. 高频线路的通讯设备.
3. Bluetooth, W-LAN, Broadband network. 蓝牙，无线宽带网络.

● PART NUMBERING SYSTEM 品名系统

CKCW 0402 - 22nH / J (C)

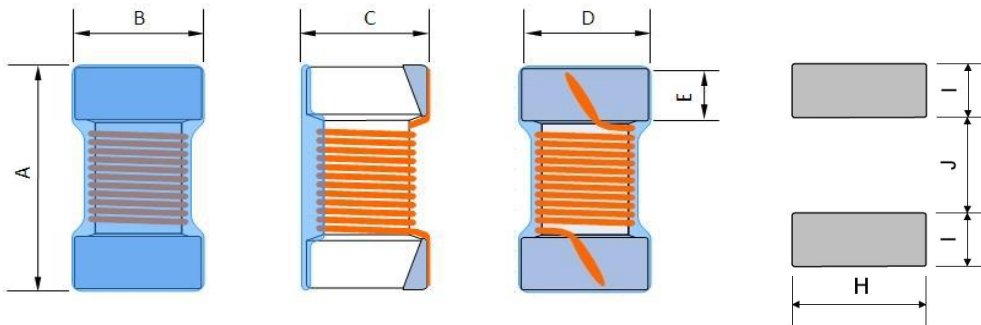
(1) (2) (3) (4) (5)

(1) Type 型号 (2) External Dimensions 外形尺寸 (3) Inductance 电感值

(4) Inductance Tolerance 电感值公差 (B:±0.1nH C:±0.2nH S:±0.3nH G:±2% H:±3% J:±5% K:±10%)

(5) Material code (Ceramic) 材料代号 (陶瓷)

● SHAPES AND DIMENSIONS 外形尺寸 (Unit:mm)

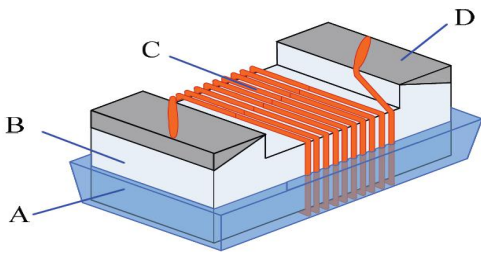


Land Pattern

TYPE(型号)	A	B	C	D	E	H	I	J
CKCW0402 (C)	1.1±0.1	0.6±0.1	0.55±0.1	0.5±0.1	0.2±0.1	0.65 ref	0.35 ref	0.50 ref
CKCW0603 (C)	1.8 Max	1.12 Max	1.02 Max	0.76 Typ	0.33 Typ	1.02 ref	0.64 ref	0.64 ref
CKCW0805 (C)	2.29 Max	1.73 Max	1.55 Max	1.27 Typ	0.5 Typ	1.78 ref	1.02 ref	0.76 ref

* Electrode Coplanarity:0.1mm Max.

● **STRUCTURE AND MATERIAL**



Part	Components	Material
A	Coating	Ultraviolet epoxy resin
B	Core	Ceramic
C	Wire	Polyurethane enameled copper wire
D	Electrodes	Ag/Ag-Pd with Ni and Sn plating

● **ELECTRICAL CHARACTERISTICS**

1. Operating and storage temperature range (individual chip without packing): -40°C to +125°C
2. Storage temperature range (packaging conditions): -10°C~+40°C and RH 70% (Max.)

● **TEST AND MEASUREMENT PROCEDURES**

1. Inductance (L)

Test equipment: Keysight E4991B / Agilent 16197A or equivalent

Test signal: -13dBm or 10mA

2. DC Resistance (DCR)

Test equipment: Agilent34420A / Agilent 4338B or equivalent

3. Q Factor (Q)

Test equipment: Keysight E4991B / Agilent 16197A or equivalent

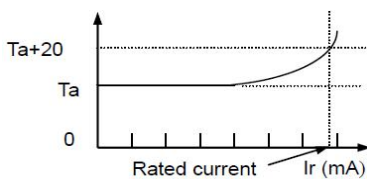
4. Self-Resonant Frequency (SRF)

Test equipment: Keysight E4991B / Agilent 16197A / HP 8753E or equivalent

Test signal: -20dBm or 50 mV

5. Rated Current (Irms)

Irms is direct electric current as chip surface temperature rose just 20 against chip initial surface temperature (Ta)



● **RECOMMENDED SOLDERING TECHNOLOGIES**

Re-flowing Profile

Preheat condition: 150~200 /60~120sec.

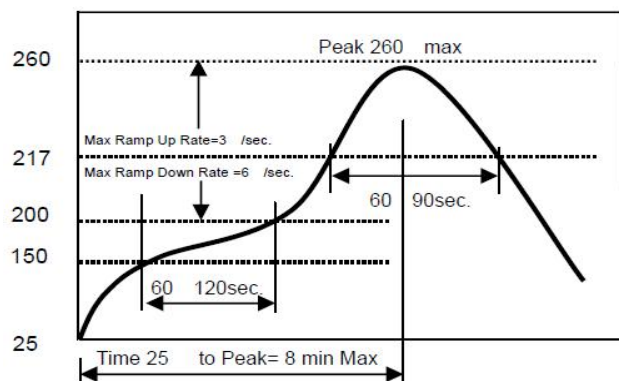
Allowed time above 217C: 60~90sec.

Max temp: 260

Max time at max temp: 10sec

Solder paste: Sn/3.0Ag/0.5Cu

Allowed Reflow time: 2 times max





● SPECIFICATION TABLE:

CKCW0402 (C) Series

Part Number	Inductance	Tolerance	Min. Quality Factor	L/Q Test Freq.	Max. DC Resistance	Max. Rated Current	Self-resonant Frequency
Symbol	L		Q	Freq.	DCR	I _{rms}	SRF (Min)
Units				MHz	Ω	mA	MHz
CKCW0402-1nH/□(C)	1nH	C,S,D,K	10	250	0.085	650	>6000
CKCW0402-2.2nH/□(C)	2.2nH	C,S,D,J,K	22	250	0.058	820	>6000
CKCW0402-3.3nH/□(C)	3.3nH	C,S,D,J,K	24	250	0.063	790	>6000
CKCW0402-3.9nH/□(C)	3.9nH	C,S,D,J,K	24	250	0.063	790	>6000
CKCW0402-4.1nH/□(C)	4.1nH	C,S,D,J,K	22	250	0.070	700	>6000
CKCW0402-4.3nH/□(C)	4.3nH	C,S,D,J,K	22	250	0.070	750	>6000
CKCW0402-4.7nH/□(C)	4.7nH	C,S,D,J,K	20	250	0.120	570	>6000
CKCW0402-6.8nH/□(C)	6.8nH	J,K	24	250	0.105	610	6000
CKCW0402-8.7nH/□(C)	8.7nH	J,K	25	250	0.110	590	5500
CKCW0402-10nH/□(C)	10nH	J,K	24	250	0.150	510	5500
CKCW0402-11nH/□(C)	11nH	J,K	26	250	0.120	500	5500
CKCW0402-12nH/□(C)	12nH	J,K	26	250	0.120	570	5500
CKCW0402-15nH/□(C)	15nH	J,K	26	250	0.210	430	5000
CKCW0402-22nH/□(C)	22nH	J,K	25	250	0.360	330	4000
CKCW0402-33nH/□(C)	33nH	J,K	24	250	0.550	260	3200
CKCW0402-47nH/□(C)	47nH	J,K	25	250	0.950	200	2900
CKCW0402-68nH/□(C)	68nH	J,K	25	250	1.350	170	2500

※ □(C): Please specify the inductance tolerance code

(B=±0.1nH, C=±0.2nH, S=±0.3nH, D=±0.5nH, G=±2%, H=±3%, J=±5%, K=±10%).



● SPECIFICATION TABLE:

CKCW0603 (C) Series

Part Number	Inductance	Tolerance	Min. Quality Factor	L/Q Test Freq.	Max. DC Resistance	Max. Rated Current	Self-resonant Frequency
Symbol	L		Q	Freq.	DCR	I _{rms}	SRF (Min)
Units				MHz	Ω	mA	MHz
CKCW0603-3.3nH/□(C)	3.3nH	C,S,D,J,K	25	250	0.059	850	>6000
CKCW0603-3.9nH/□(C)	3.9nH	C,S,D,J,K	25	250	0.059	850	>6000
CKCW0603-5.6nH/□(C)	5.6nH	C,S,D,J,K	21	100/250	0.082	750	>6000
CKCW0603-6.8nH/□(C)	6.8nH	H,J,K	29	250	0.095	700	>6000
CKCW0603-10nH/□(C)	10nH	H,J,K	30	250	0.130	600	6000
CKCW0603-15nH/□(C)	15nH	H,J,K	37	250	0.150	550	6000
CKCW0603-22nH/□(C)	22nH	H,J,K	38	250	0.190	490	4600
CKCW0603-27nH/□(C)	27nH	H,J,K	38	250	0.190	490	3700
CKCW0603-33nH/□(C)	33nH	H,J,K	40	250	0.210	470	3200
CKCW0603-39nH/□(C)	39nH	H,J,K	40	250	0.220	460	2800
CKCW0603-47nH/□(C)	47nH	H,J,K	36	200	0.270	400	2600
CKCW0603-56nH/□(C)	56nH	H,J,K	38	200	0.350	360	2400
CKCW0603-68nH/□(C)	68nH	H,J,K	36	200	0.380	350	2200
CKCW0603-100nH/□(C)	100nH	H,J,K	31	150	0.660	260	1800
CKCW0603-150nH/□(C)	150nH	H,J,K	32	150	1.120	200	1400
CKCW0603-180nH/□(C)	180nH	H,J,K	25	100	1.380	180	1300
CKCW0603-220nH/□(C)	220nH	H,J,K	25	100	2.100	140	1200

※ □(C): Please specify the inductance tolerance code

(B=±0.1nH, C=±0.2nH, S=±0.3nH, D=±0.5nH, G=±2%, H=±3%, J=±5%, K=±10%).



● SPECIFICATION TABLE:

CKCW0805 (C) Series

Part Number	Inductance	Tolerance	Min. Quality Factor	L/Q Test Freq.	Max. DC Resistance	Max. Rated Current	Self-resonant Frequency
Symbol	L		Q	Freq.	DCR	I _{rms}	SRF (Min)
Units				MHz	Ω	mA	MHz
CKCW0805-22nH/□(C)	22nH	G,J,K	55	250/500	0.22	500	2000
CKCW0805-27nH/□(C)	27nH	G,J,K	55	250/500	0.25	500	2500
CKCW0805-33nH/□(C)	33nH	G,J,K	60	250/500	0.27	500	2000
CKCW0805-39nH/□(C)	39nH	G,J,K	60	250/500	0.29	500	2000
CKCW0805-47nH/□(C)	47nH	G,J,K	50	200/500	0.31	500	1600
CKCW0805-56nH/□(C)	56nH	G,J,K	55	200/500	0.32	500	1550
CKCW0805-68nH/□(C)	68nH	G,J,K	55	200/500	0.38	500	1450
CKCW0805-82nH/□(C)	82nH	G,J,K	50	150/500	0.42	400	1300
CKCW0805-100nH/□(C)	100nH	G,J,K	50	150/500	0.46	400	1200
CKCW0805-330nH/□(C)	330nH	G,J,K	40	100/250	1.40	310	600
CKCW0805-560nH/□(C)	560nH	G,J,K	23	25/50	1.90	230	320
CKCW0805-680nH/□(C)	680nH	G,J,K	23	25/50	2.05	190	270

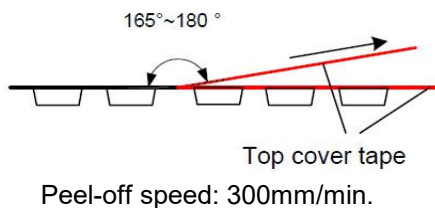
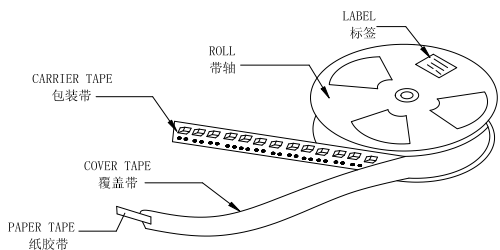
※□(C): Please specify the inductance tolerance code

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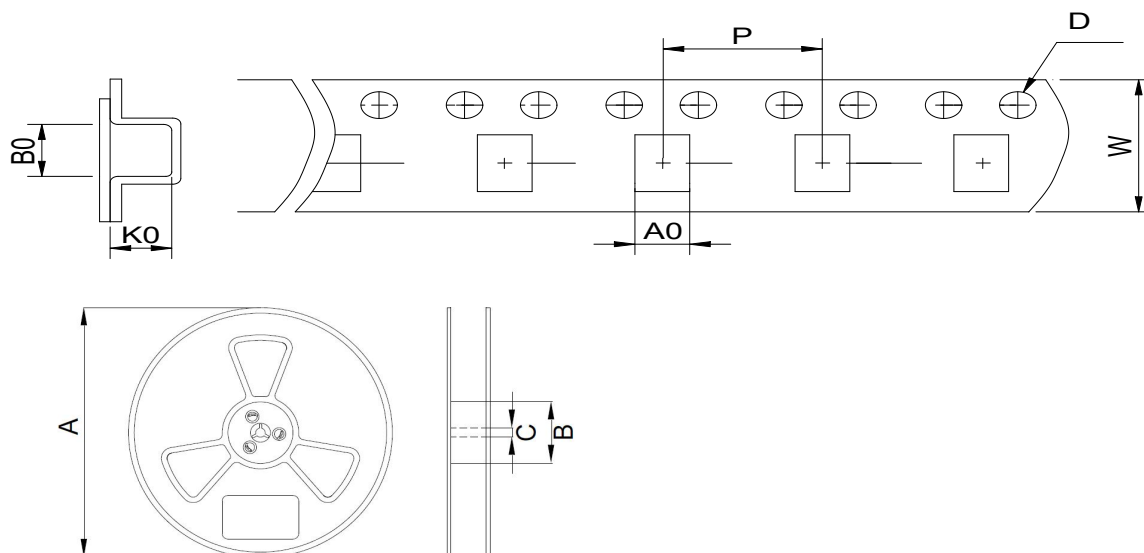
● **PACKAGING SPECIFICATION :**

1. Packaging - Cover Tape

The force for tearing off cover tape is 10 to 100 grams in the arrow direction.



2. Packaging - Tape & Reel



Type	Tape Dimension (mm)						Reel Dimension (mm)			Quantity (Pcs/Reel)
	W	A0	B0	K0	D	P	A	B	C	
CKCW0402 (C)	8	0.66	1.2	0.67	1.5	4	178	58	13	10Kpcs
CKCW0603 (C)	8	1.1	1.75	1.1	1.5	4	178	58	13	4Kpcs
CKCW0805 (C)	8	1.55	2.45	1.5	1.5	4	178	58	13	2Kpcs