APPROVAL SHEET

WLCW1005CQ
SMD Wire Wound Ceramic Chip Inductors
(High Q)

*Contents in this sheet are subject to change without prior notice.

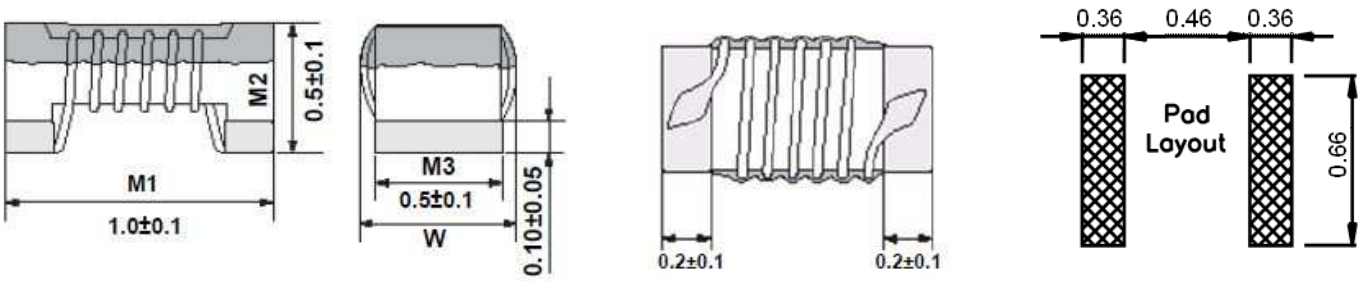
FEATURES

1. Ceramic structure provides high reliability、high productivity
2. Excellence Q and SRF characteristics for RF application
3. Wide range inductance and various tolerance options.
4. RoHS compliant

APPLICATIONS

1. Communication: GSM/3G/LTE, Wi-Fi, GPS
2. Consumer: Cabel/Terrestrial/BS Tuner, Bluetooth, Wireless Audio, Remote control
3. M2M: ZigBee, Proprietary wilreless
4. EMI solustion in high frequency circuits.

SHAPE and DIMENSION



Unit: mm

Series	M1	M2	M3	W
WLCW1005CQ	1.0±0.1	0.5±0.1	0.5±0.1	0.6±0.1

Ordering Information

WL	CW	1005	CQ	C	1N3	T	B
Product Code WL: Inductor	**Series** SMD Wire Wound Ceramic Chip inductor.	**Dimensions** 1.0 * 0.5 mm 1005 :EIA 0402	**Series extension** CQ: High Q	**Tolerance** C: ± 0.2nH W: ± 0.5nH	**Value** 1N3 =1.3nH	**Packing Code** T= 7" Paper Tape	B:STD

Electrical Characteristics

● WLCW1005CQ series

Walsin Part Number	L (nH)	Tolerance	Inductance Test Frequency (MHz)	Rated Current (mA)	Max. of DC Resistance Ω	Q (min.)	Q Test Frequency (MHz)	Self-Resonance Frequency (min.) (GHz)
WLCW1005CQ□1N3TB	1.3	C、W	100	1200	0.017	20	250	16
WLCW1005CQ□1N4TB	1.4	C、W	100	1100	0.019	25	250	15
WLCW1005CQ□2N2TB	2.2	C、W	100	1000	0.027	25	250	14
WLCW1005CQ□2N3TB	2.3	C、W	100	1000	0.027	25	250	14
WLCW1005CQ□2N4TB	2.4	W	100	1000	0.027	25	250	14
WLCW1005CQ□3N3TB	3.3	W	100	900	0.040	30	250	12
WLCW1005CQ□3N4TB	3.4	C、W	100	900	0.040	30	250	12
WLCW1005CQ□3N5TB	3.5	C、W	100	900	.0.040	30	250	9.5
WLCW1005CQ□3N6TB	3.6	C、W	100	900	0.040	30	250	9.5
WLCW1005CQ□3N8TB	3.8	C、W	100	900	0.040	30	250	7
WLCW1005CQ□3N9TB	3.9	W	100	900	0.040	30	250	7
WLCW1005CQ□4N0TB	4.0	C、W	100	800	0.051	30	250	6.5
WLCW1005CQ□4N2TB	4.2	C、W	100	800	0.051	30	250	6.5
WLCW1005CQ□4N7TB	4.7	W	100	800	0.051	30	250	8
WLCW1005CQ□5N1TB	5.1	C、W	100	800	0.051	30	250	8
WLCW1005CQ□5N2TB	5.2	C、W	100	800	0.051	30	250	8
WLCW1005CQ□5N3TB	5.3	C、W	100	800	0.051	30	250	8
WLCW1005CQ□5N4TB	5.4	C、W	100	800	0.051	30	250	8
WLCW1005CQ□5N5TB	5.5	C、W	100	800	0.051	30	250	8
WLCW1005CQ□5N6TB	5.6	C、W	100	800	0.051	30	250	8
WLCW1005CQ□5N7TB	5.7	C、W	100	800	0.051	30	250	8
WLCW1005CQ□5N9TB	5.9	C、W	100	760	0.056	30	250	7.7
WLCW1005CQ□6N0TB	6.0	C、W	100	760	0.056	30	250	7.7
WLCW1005CQ□6N1TB	6.1	C、W	100	760	0.056	30	250	7.7
WLCW1005CQ□7N4TB	7.4	C、W	100	750	0.058	30	250	6.8
WLCW1005CQ□7N6TB	7.6	C、W	100	750	0.058	30	250	6.8
WLCW1005CQ□7N7TB	7.7	C、W	100	750	0.058	30	250	6.8
WLCW1005CQ□7N8TB	7.8	C、W	100	750	0.058	30	250	6.8
WLCW1005CQ□7N9TB	7.9	C、W	100	640	0.079	30	250	7.5
WLCW1005CQ□8N0TB	8.0	C、W	100	640	0.079	30	250	7.5
WLCW1005CQ□8N1TB	8.1	C、W	100	640	0.079	30	250	7.5
WLCW1005CQ□8N3TB	8.3	C、W	100	640	0.079	30	250	7.5
WLCW1005CQ□8N4TB	8.4	C、W	100	640	0.079	30	250	7.5

Tolerance： W:±0.5nH、C:±0.2nH

Operating Temperature Range.： -55℃ ~ +125℃ Storage Temperature Range：-55℃ ~ +125℃

L、Q :TESTED BY AGILENT 4287A with 16197A or its equivalent

SR : TESTED BY HP 8753E /HP4291B with 16193A /ENA5071C or its equivalent

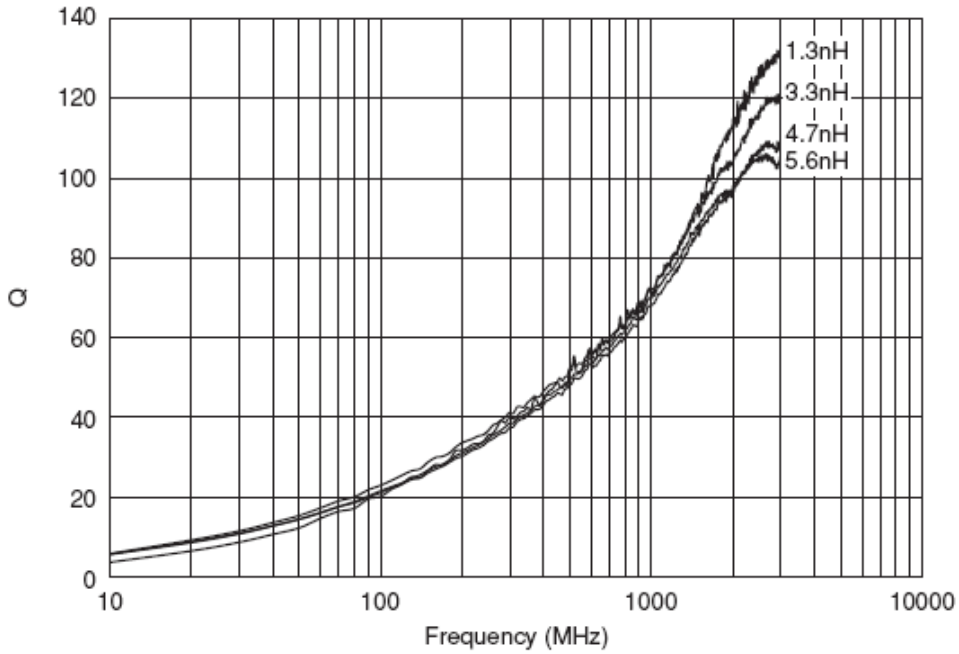
DCR:TESTED BY AGILENT zentech 502BC or its equivalent

※MSL：LEVEL 1

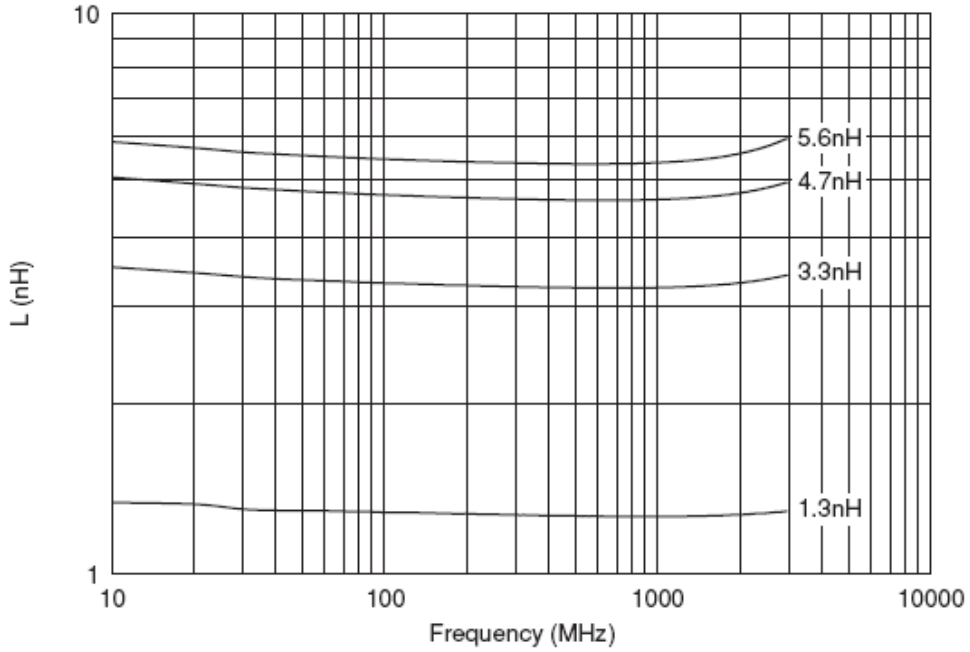
Characteristic Curve

● WLCW1005CQ series

Q-Frequency Characteristics (Typ.)



Inductance-Frequency Characteristics(Typ.)



RELIABILITY PERFORMANCE

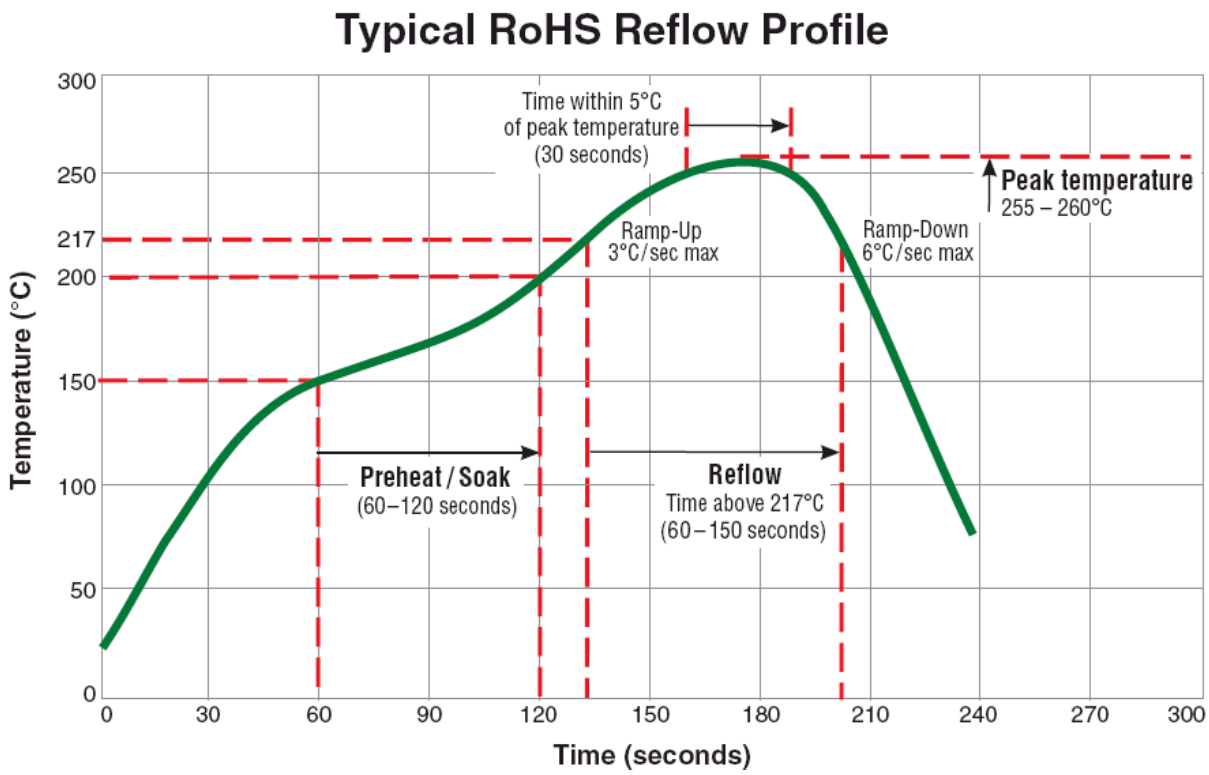
Reliability Experiment For Electrical

Test Item	Test Condition	Standard Source
Humidity Test	+40℃± 2℃, humidity of 90% ± 5% (total 96 hours).	MIL-STD-202G Method 103B Test Condition B
High Temperature Test	1.Temperature: +125℃±2℃ 2.Test time: 48±2hrs	IEC 68-2 Test Condition B
Low Temperature Test	1.Temperature: -40℃±2℃ 2.Test time: 48±2hrs	IEC 68-2 Test Condition A
Thermal Shock	+125℃±5℃ (30 minutes) ~ -40 ± 5℃ (30 minutes), temperature switch time: 5 minutes (total 50 cycles).	MIL-STD-202G Method 107G Test Condition B-2
Life Test	+70℃±5℃ (250Hours)	MIL-STD-202G Method 108A Test Condition B

Reliability Experiment For Physical

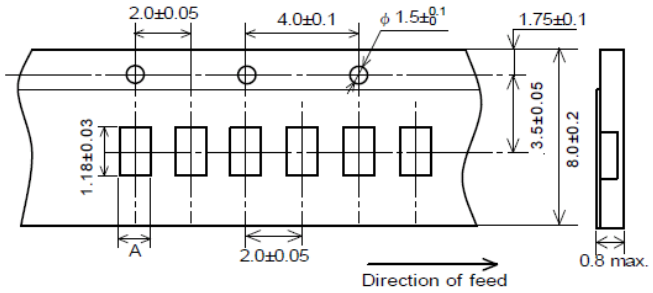
Test Item	Test Condition	Standard Source
Vibration Test	10-55-10HZ, amplitude: 1.5mm, direction: X, Y, Z axes, each axis 2 hours (total 6 hours).	MIL-STD-202G Method 201A
Solder Heat Resistance Test	IR/convection reflow:Peak Temp 250±5℃ for 5Sec in air, Through 2 Cycle. Temperature Ramp:+1~4℃/sec; Above1 83℃, must keep 90 s - 120 s	MIL-STD-202G Method 210F Test Condition (Reflow)
Solder Ability Test	Soak in 245 ℃ solder pot of 3Sec, PAD must have 95% above coverage.	J-STD-003B

Typical RoHS Reflow Profile



Packaging Specification

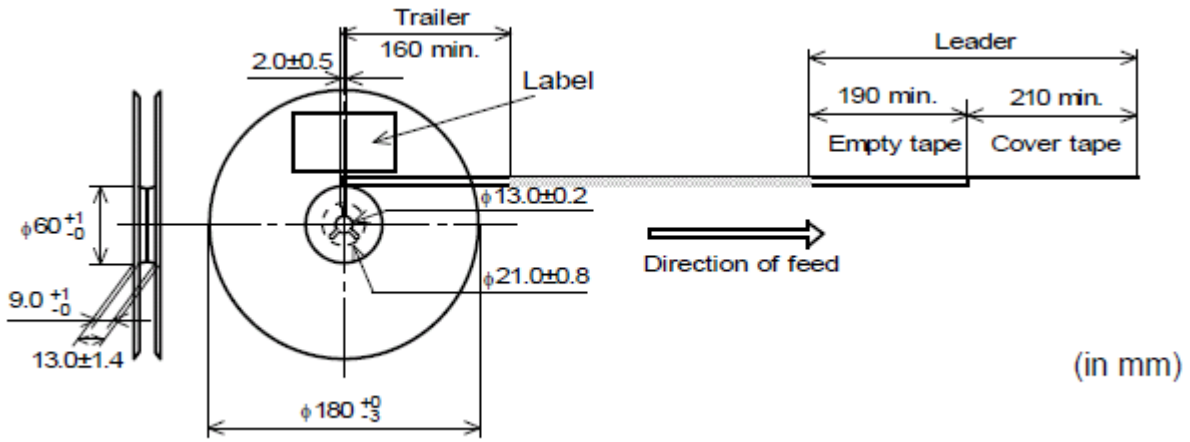
Appearance and Dimensions of paper tape (8mm-wide)



Inductance	A (in mm)
1.3nH, 1.4nH	0.69±0.03
2.2nH～8.4nH	0.66±0.03

(in mm)

There shall be leader-tape (cover tape and empty tape) and trailer-tape (empty tape) as follows.



Quantity per reel ：10K pcs / reel