APPROVAL SHEET

WLCW2012
SMD Wire Wound Ceramic Chip Inductors

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

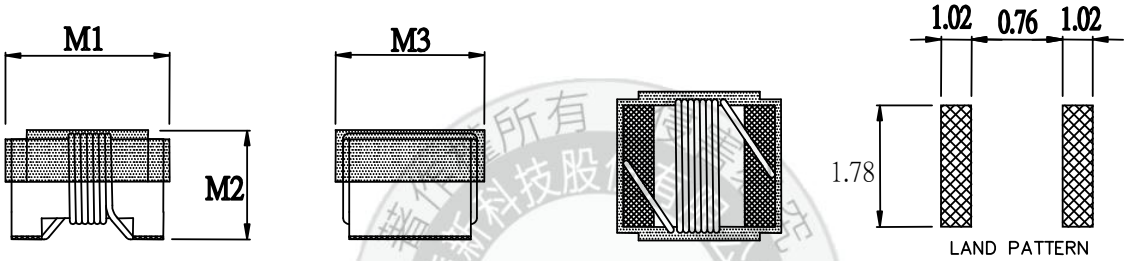
Features

1. Standard chip size bobbin with wire wound coil provides high reliability, productivity and performance.
2. Excellence Q and SRF characteristics for RF application, such as LO tank, antenna matching and filter.
3. Wide range inductance and various tolerance options.
4. RoHS compliant.

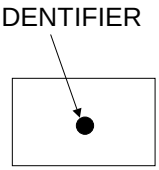
Applications

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

Shape and Dimension



Unit: mm



Example : WLCW2012Z0□2N2PB

MARKING : WHITE

MARK COLOR CODE IN COMPOSITE SPECIFICATION

WLCW Series	M1	M2	M3
2012	2.29(MAX)	1.52(MAX)	1.73(MAX)

Ordering Information

WL	CW	2012	Z0	J	2N2	P	B
Product Code	**Series**	**Dimensions**	**Series extension**	**Tolerance**	**Value**	**Packing Code**	
WL: Inductor	SMD wire wound ceramic chip inductor.	2012 (EIA 0805)	Z0:STD	G: ± 2% J: ± 5% K: ± 10%	2N2 =2.2nH 12N=12nH R12=120nH 1R0=1000nH	P=7" Reeled (Embossed tape)	B:STD

Electrical Characteristics

WLCW2012 series

Walsin Part Number	L (nH)	Tolerance	Measuring Frequency (MHz)	Q (Min)	Test Freq (MHz)	SRF (GHz) Min	RDC Max (Ω)	Irms (mA)	Color Code
WLCW2012Z0□2N2PB	2.2	J、K	250	35	1500	3.00	0.08	600	WHITE
WLCW2012Z0□2N7PB	2.7	J、K	250	80	1500	7.90	0.03	600	BROWN
WLCW2012Z0□2N8PB	2.8	J、K	250	80	1000	7.90	0.06	800	RED
WLCW2012Z0□2N9PB	2.9	J、K	250	50	1000	4.70	0.05	600	BLUE
WLCW2012Z0□3N0PB	3.0	J、K	250	65	1500	7.90	0.06	800	VIOLET
WLCW2012Z0□3N3PB	3.3	J、K	250	35	1500	7.90	0.08	600	BLACK
WLCW2012Z0□5N6PB	5.6	J、K	250	65	1000	5.50	0.08	600	VIOLET
WLCW2012Z0□6N2PB	6.2	J、K	250	50	1000	5.50	0.11	600	GREEN
WLCW2012Z0□6N8PB	6.8	J、K	250	50	1000	5.50	0.11	600	BROWN
WLCW2012Z0□7N5PB	7.5	J、K	250	50	1000	5.50	0.10	600	BLACK
WLCW2012Z0□8N2PB	8.2	G、J、K	250	50	1000	4.70	0.12	600	RED
WLCW2012Z0□8N7PB	8.7	G、J、K	250	50	1000	4.70	0.10	400	WHITE
WLCW2012Z0□10NPB	10	G、J、K	250	60	500	4.20	0.10	600	RED
WLCW2012Z0□11NPB	11	G、J、K	700	45	500	3.00	0.15	600	ORANGE
WLCW2012Z0□12NPB	12	G、J、K	250	50	500	4.00	0.15	600	ORANGE
WLCW2012Z0□15NPB	15	G、J、K	250	50	500	3.40	0.17	600	YELLOW
WLCW2012Z0□18NPB	18	G、J、K	250	50	500	3.30	0.20	600	GREEN
WLCW2012Z0□22NPB	22	G、J、K	250	55	500	2.60	0.22	500	BLUE
WLCW2012Z0□24NPB	24	G、J、K	250	50	500	2.00	0.22	500	RED
WLCW2012Z0□27NPB	27	G、J、K	250	55	500	2.50	0.25	500	VIOLET
WLCW2012Z0□33NPB	33	G、J、K	250	60	500	2.05	0.27	500	GRAY
WLCW2012Z0□36NPB	36	G、J、K	250	55	500	1.70	0.27	500	YELLOW
WLCW2012Z0□37NPB	37	G、J、K	350	40	500	1.80	0.27	500	GREEN
WLCW2012Z0□38NPB	38	G、J、K	350	40	500	1.80	0.27	500	BLUE
WLCW2012Z0□39NPB	39	G、J、K	250	60	500	2.00	0.29	500	WHITE
WLCW2012Z0□43NPB	43	G、J、K	200	60	500	1.65	0.34	500	YELLOW
WLCW2012Z0□47NPB	47	G、J、K	200	60	500	1.65	0.31	500	BLACK
WLCW2012Z0□56NPB	56	G、J、K	200	60	500	1.55	0.34	500	BROWN
WLCW2012Z0□68NPB	68	G、J、K	200	60	500	1.45	0.38	500	RED
WLCW2012Z0□72NPB	72	G、J、K	150	65	500	1.40	0.4	500	GREEN
WLCW2012Z0□82NPB	82	G、J、K	150	65	500	1.30	0.42	400	ORANGE
WLCW2012Z0□91NPB	91	G、J、K	150	65	500	1.20	0.48	400	BLUE
WLCW2012Z0□R10PB	100	G、J、K	150	65	500	1.20	0.46	400	YELLOW
WLCW2012Z0□R11PB	110	G、J、K	150	50	500	1.00	0.48	400	VIOLET

Walsin Part Number	L (nH)	Tolerance	Measuring Frequency (MHz)	Q (Min)	Test Freq (MHz)	SRF (GHz) Min	RDC Max (Ω)	Irms (mA)	Color Code
WLCW2012Z0□R12PB	120	G、J、K	150	50	250	1.10	0.51	400	GREEN
WLCW2012Z0□R15PB	150	G、J、K	100	50	250	0.920	0.56	400	BLUE
WLCW2012Z0□R16PB	160	G、J、K	100	50	250	0.900	0.60	400	YELLOW
WLCW2012Z0□R18PB	180	G、J、K	100	50	250	0.870	0.64	400	VIOLET
WLCW2012Z0□R20PB	200	G、J、K	100	50	250	0.860	0.66	400	ORANGE
WLCW2012Z0□R22PB	220	G、J、K	100	50	250	0.850	0.70	400	GRAY
WLCW2012Z0□R24PB	240	G、J、K	100	44	250	0.690	1.00	350	BLACK
WLCW2012Z0□R25PB	250	G、J、K	100	50	250	0.680	1.00	350	GREEN
WLCW2012Z0□R27PB	270	G、J、K	100	48	250	0.650	1.15	300	WHITE
WLCW2012Z0□R30PB	300	G、J、K	100	48	250	0.620	1.20	300	GRAY
WLCW2012Z0□R33PB	330	G、J、K	100	48	250	0.600	1.40	300	BLACK
WLCW2012Z0□R36PB	360	G、J、K	100	35	250	0.400	0.90	300	ORANGE
WLCW2012Z0□R39PB	390	G、J、K	150	48	250	0.560	1.50	300	BROWN
WLCW2012Z0□R43PB	430	G、J、K	100	33	100	0.430	1.70	190	WHITE
WLCW2012Z0□R47PB	470	J、K	50	33	100	0.380	1.70	250	VIOLET
WLCW2012Z0□R56PB	560	J、K	25	23	50	0.340	1.90	230	ORANGE
WLCW2012Z0□R60PB	600	J、K	25	23	50	0.260	1.60	450	WHITE
WLCW2012Z0□R62PB	620	J、K	25	23	50	0.200	2.00	190	ORANGE
WLCW2012Z0□R68PB	680	J、K	25	23	50	0.188	2.20	190	GREEN
WLCW2012Z0□R75PB	750	J、K	25	23	50	0.200	2.30	180	BLUE
WLCW2012Z0□R82PB	820	J、K	25	23	50	0.215	2.50	190	BROWN
WLCW2012Z0□R91PB	910	J、K	25	24	50	0.250	2.30	170	RED
WLCW2012Z0□1R0PB	1000	G、J	25	23	50	0.100	2.90	170	BLACK
WLCW2012Z0□1R2PB	1200	G、J	7.9	18	25	0.100	2.50	170	WHITE
WLCW2012Z0□1R5PB	1500	G、J	7.9	16	25	0.100	2.50	170	BLACK
WLCW2012Z0□1R8PB	1800	G、J	7.9	16	7.9	0.080	2.50	170	BROWN
WLCW2012Z0□2R2PB	2200	G、J	7.9	16	7.9	0.060	2.70	160	RED
WLCW2012Z0□2R7PB	2700	G、J	7.9	16	7.9	0.050	3.10	150	ORANGE
WLCW2012Z0□3R3PB	3300	G、J	7.9	15	7.9	0.040	4.40	90	BLUE
WLCW2012Z0□4R7PB	4700	G、J	7.9	15	7.9	0.040	6.40	90	GREEN

Tolerance：K：±10%、J：±5%、G：±2%
OPERATING TEMPERATURE : -40℃ ~ 125℃
Storage temperature Component: –40℃ to +100℃. Tap e and reel packaging: –40℃ to +80℃
※MSL：LEVEL 1
L、Q TEST BY HP4291B SRF TEST BY HP 8753E
DCR TEST BY ZENTECH 502BC

RELIABILITY PERFORMANCE

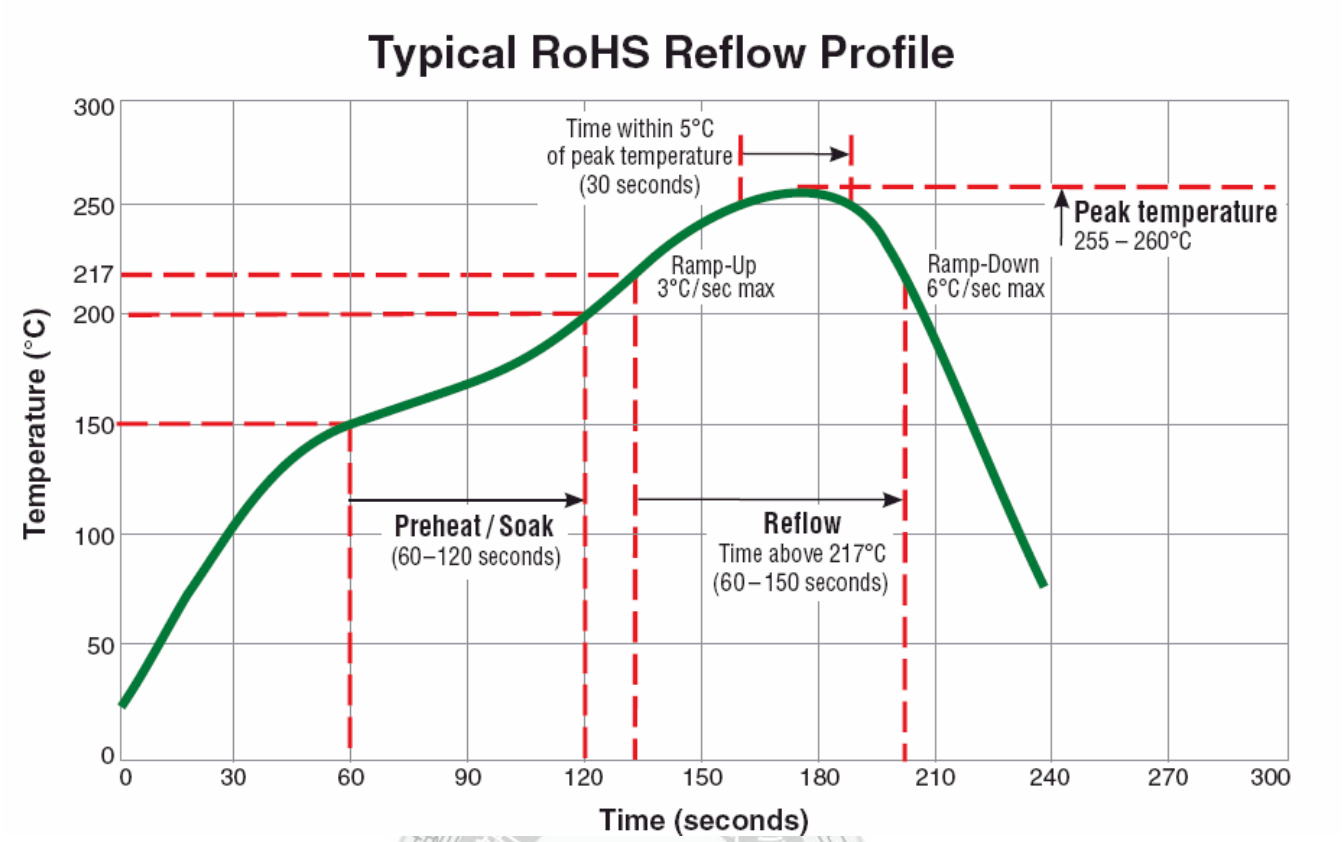
Reliability Experiment For Electrical

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

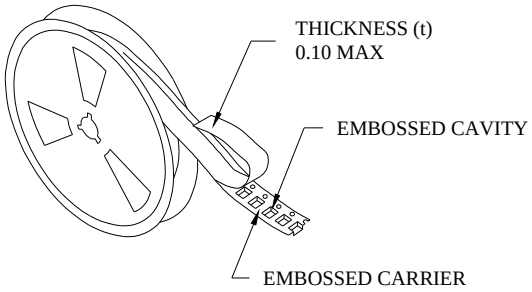
Reliability Experiment For Physical

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

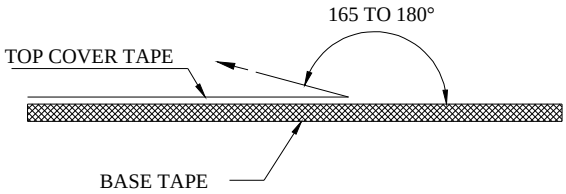
Typical RoHS Reflow Profile

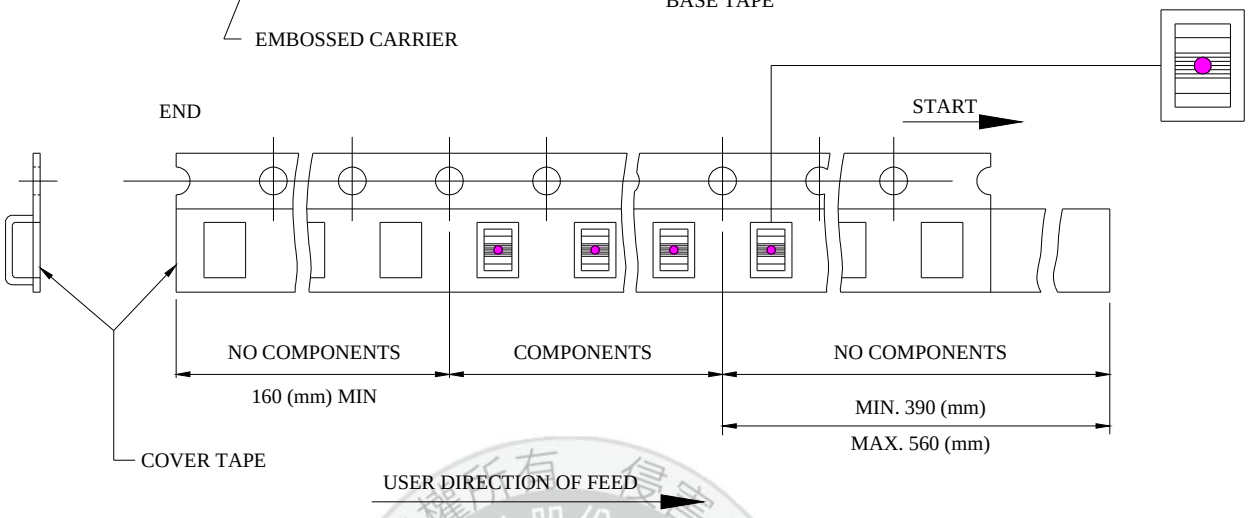


Packaging Specification



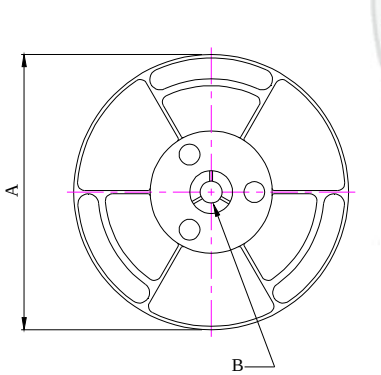
- THE FORCE FOR TEARING OFF COVER TAPE IS 10 TO 100 GRAMS IN THE ARROW DIRECTION.



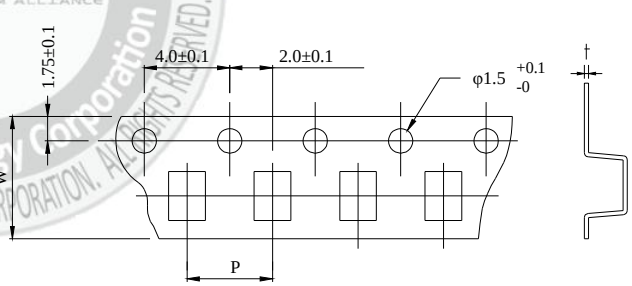


■ CARRIER TAPE REELS (mm)

MATERIAL: PLASTIC



■ DIMENSIONS OF CARRIER TAPE (mm)



	A	B	C	D	N	P	W	t
DIM.	178	13.0	8.4	12.5	50	4.0	8.0	0.25
TOL.	±2.0	±0.8	+1.0–0	MAX	MIN	±0.1	±0.2	±0.05

Quantity per reel：3K pcs