

APPROVAL SHEET

WLCW1005CF **SMD Wire Wound Ceramic Chip Inductors**

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

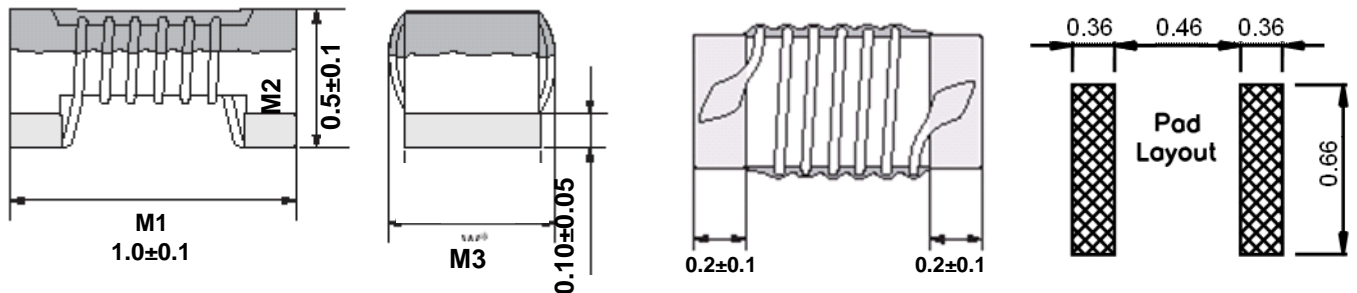
FEATURES

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 wireless
4. EMI solution in high frequency circuits.

SHAPE and DIMENSION



Unit: mm

Series	M1	M2	M3	
WLCW1005CF	1.0±0.1	0.5±0.1	0.6±0.1	1.5nH~23nH
			0.5±0.1	24nH~120nH

Ordering Information

WL	CW	1005	CF	B	1N5	T	B
Product Code	Series	Dimensions	Series extension	Tolerance	Value	Packing Code	
WL: Inductor	SMD Wire Wound Ceramic Chip inductor.	1.0 * 0.5 mm 1005 :EIA 0402	CF:	B: ± 0.1nH C: ± 0.2nH W: ± 0.5nH G: ± 2% H: ± 3% J: ± 5%	1N5 =1.5nH 12N=12nH R12=120nH =0.12uH	T= 7" Paper Tape	B:STD

Electrical Characteristics

● WLCW1005CF series

Walsin Part Number	L (nH)	Tolerance	Inductance Test Frequency (MHz)	Q (Min)	Measuring Frequency (MHz)	SRF (GHz) Min	RDC Max (Ω)	Rated Current (mA)
WLCW1005CF□1N5TB	1.5	B、C、W	100	10	250	18.0	0.03	1000
WLCW1005CF□1N6TB	1.6	C、W	100	10	250	17.0	0.07	750
WLCW1005CF□1N7TB	1.7	C、W	100	10	250	17.0	0.10	640
WLCW1005CF□1N8TB	1.8	C、W	100	10	250	16.0	0.16	460
WLCW1005CF□2N4TB	2.4	B、C、W	100	20	250	15.0	0.05	850
WLCW1005CF□2N5TB	2.5	B、C、W	100	20	250	15.0	0.05	850
WLCW1005CF□2N6TB	2.6	B、C、W	100	20	250	15.0	0.05	850
WLCW1005CF□2N7TB	2.7	B、C、W	100	20	250	15.0	0.05	850
WLCW1005CF□2N8TB	2.8	B、C、W	100	20	250	15.0	0.05	850
WLCW1005CF□2N9TB	2.9	B、C、W	100	20	250	15.0	0.07	750
WLCW1005CF□3N0TB	3.0	B、C、W	100	20	250	15.0	0.07	750
WLCW1005CF□3N1TB	3.1	B、C、W	100	20	250	14.0	0.13	570
WLCW1005CF□3N2TB	3.2	B、C、W	100	15	250	14.0	0.17	500
WLCW1005CF□3N9TB	3.9	B、C、W	100	25	250	10.0	0.07	750
WLCW1005CF□4N1TB	4.1	B、C、W	100	25	250	10.0	0.07	750
WLCW1005CF□4N3TB	4.3	B、C、W	100	25	250	10.0	0.07	750
WLCW1005CF□4N4TB	4.4	B、C、W	100	25	250	8.0	0.07	750
WLCW1005CF□4N5TB	4.5	B、C、W	100	25	250	8.0	0.07	750
WLCW1005CF□4N6TB	4.6	B、C、W	100	25	250	8.0	0.07	750
WLCW1005CF□4N7TB	4.7	B、C、W	100	25	250	8.0	0.07	750
WLCW1005CF□4N8TB	4.8	B、C、W	100	25	250	8.0	0.07	750
WLCW1005CF□4N9TB	4.9	B、C、W	100	25	250	8.0	0.12	600
WLCW1005CF□5N0TB	5.0	B、C、W	100	25	250	8.0	0.12	600
WLCW1005CF□5N1TB	5.1	B、C、W	100	25	250	8.0	0.12	600
WLCW1005CF□5N8TB	5.8	B、C、W	100	25	250	8.0	0.12	700
WLCW1005CF□6N2TB	6.2	B、C、W	100	25	250	8.0	0.09	700
WLCW1005CF□6N3TB	6.3	B、C、W	100	25	250	6.0	0.09	700
WLCW1005CF□6N4TB	6.4	B、C、W	100	25	250	6.0	0.09	700
WLCW1005CF□6N5TB	6.5	B、C、W	100	25	250	6.0	0.09	700
WLCW1005CF□6N6TB	6.6	B、C、W	100	25	250	6.0	0.09	700
WLCW1005CF□6N7TB	6.7	B、C、W	100	25	250	6.0	0.09	700
WLCW1005CF□6N8TB	6.8	G、H、J	100	25	250	6.0	0.09	700
WLCW1005CF□6N9TB	6.9	G、H、J	100	25	250	6.0	0.13	570
WLCW1005CF□7N0TB	7.0	G、H、J	100	25	250	6.0	0.13	570
WLCW1005CF□7N1TB	7.1	G、H、J	100	25	250	6.0	0.13	570
WLCW1005CF□7N2TB	7.2	G、H、J	100	25	250	6.0	0.13	570
WLCW1005CF□7N3TB	7.3	G、H、J	100	25	250	6.0	0.13	570

Walsin Part Number	L (nH)	Tolerance	Inductance Test Frequency (MHz)	Q (Min)	Measuring Frequency (MHz)	SRF (GHz) Min	RDC Max (Ω)	Rated Current (mA)
WLCW1005CF□7N5TB	7.5	G、H、J	100	25	250	6.0	0.13	570
WLCW1005CF□8N2TB	8.2	G、H、J	100	25	250	5.5	0.14	540
WLCW1005CF□8N6TB	8.6	G、H、J	100	25	250	5.5	0.14	540
WLCW1005CF□8N7TB	8.7	G、H、J	100	25	250	5.5	0.14	540
WLCW1005CF□8N8TB	8.8	G、H、J	100	25	250	5.5	0.14	540
WLCW1005CF□8N9TB	8.9	G、H、J	100	25	250	5.5	0.14	540
WLCW1005CF□9N0TB	9.0	G、H、J	100	25	250	5.5	0.14	540
WLCW1005CF□9N1TB	9.1	G、H、J	100	25	250	5.5	0.14	540
WLCW1005CF□9N2TB	9.2	G、H、J	100	25	250	5.5	0.14	540
WLCW1005CF□9N3TB	9.3	G、H、J	100	25	250	5.5	0.14	540
WLCW1005CF□9N4TB	9.4	G、H、J	100	25	250	5.5	0.14	540
WLCW1005CF□9N5TB	9.5	G、H、J	100	25	250	5.5	0.14	540
WLCW1005CF□9N6TB	9.6	G、H、J	100	25	250	5.5	0.14	540
WLCW1005CF□9N7TB	9.7	G、H、J	100	25	250	5.5	0.14	540
WLCW1005CF□9N8TB	9.8	G、H、J	100	25	250	5.5	0.14	540
WLCW1005CF□9N9TB	9.9	G、H、J	100	25	250	5.5	0.14	540
WLCW1005CF□10NTB	10	G、H、J	100	25	250	5.5	0.17	500
WLCW1005CF□11NTB	11	G、H、J	100	30	250	5.5	0.14	500
WLCW1005CF□12NTB	12	G、H、J	100	30	250	5.5	0.14	500
WLCW1005CF□13NTB	13	G、H、J	100	25	250	5.0	0.21	430
WLCW1005CF□15NTB	15	G、H、J	100	30	250	5.0	0.16	460
WLCW1005CF□16NTB	16	G、H、J	100	25	250	4.5	0.24	370
WLCW1005CF□18NTB	18	G、H、J	100	25	250	4.5	0.27	370
WLCW1005CF□19NTB	19	G、H、J	100	25	250	4.5	0.27	370
WLCW1005CF□20NTB	20	G、H、J	100	25	250	4.0	0.27	370
WLCW1005CF□22NTB	22	G、H、J	100	25	250	4.0	0.30	310
WLCW1005CF□23NTB	23	G、H、J	100	25	250	3.8	0.30	310
WLCW1005CF□24NTB	24	G、H、J	100	25	250	3.5	0.52	280
WLCW1005CF□27NTB	27	G、H、J	100	25	250	3.5	0.52	280
WLCW1005CF□30NTB	30	G、H、J	100	25	250	3.3	0.58	270
WLCW1005CF□33NTB	33	G、H、J	100	25	250	3.2	0.63	260
WLCW1005CF□36NTB	36	G、H、J	100	25	250	3.1	0.63	260
WLCW1005CF□39NTB	39	G、H、J	100	25	250	3.0	0.70	250
WLCW1005CF□40NTB	40	G、H、J	100	25	250	3.0	0.70	250
WLCW1005CF□43NTB	43	G、H、J	100	25	250	3.0	0.70	250
WLCW1005CF□47NTB	47	G、H、J	100	25	200	2.9	1.08	210
WLCW1005CF□51NTB	51	G、H、J	100	25	200	2.85	1.08	210
WLCW1005CF□56NTB	56	G、H、J	100	25	200	2.8	1.17	200
WLCW1005CF□62NTB	62	G、H、J	100	20	200	2.6	1.82	145
WLCW1005CF□68NTB	68	G、J	100	20	200	2.5	1.96	140
WLCW1005CF□72NTB	72	G、J	100	20	150	2.5	2.10	135

Walsin Part Number	L (nH)	Tolerance	Inductance Test Frequency (MHz)	Q (Min)	Measuring Frequency (MHz)	SRF (GHz) Min	RDC Max (Ω)	Rated Current (mA)
WLCW1005CF□75NTB	75	G、J	100	20	150	2.4	2.10	135
WLCW1005CF□82NTB	82	G、J	100	20	150	2.3	2.24	130
WLCW1005CF□91NTB	91	G、J	100	20	150	2.1	2.38	125
WLCW1005CF□R10TB	100	J	100	20	150	1.5	2.52	120
WLCW1005CF□R12TB	120	J	100	20	150	1.0	2.66	110

Tolerance : :J \pm 5%、H \pm 3%、G \pm 2%、W \pm 0.5nH、C \pm 0.2nH、B \pm 0.1nH

Operating Temperature Range. : -55 $^{\circ}$ C ~ +125 $^{\circ}$ C

Storage Temperature Range : -55 $^{\circ}$ C ~ +125 $^{\circ}$ C

※MSL : LEVEL 1

TEST INSTRUMENT:

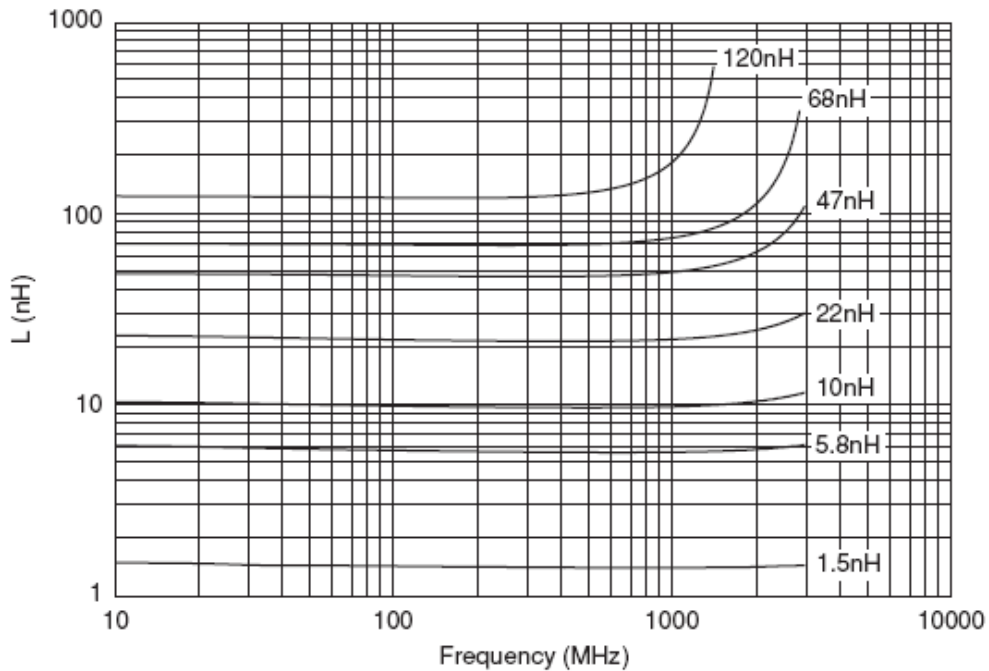
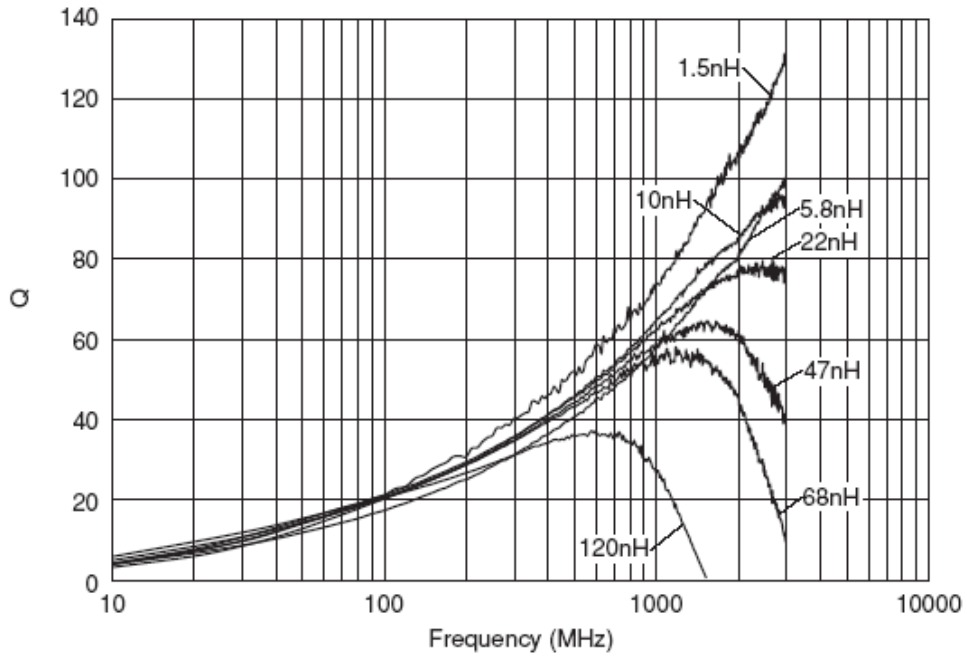
L、Q :TESTED BY AGILENT 4287A with 16197A or its equivalent

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

DCR: TESTED BY AGILENT zentech 502BC or its equivalent

Characteristic Curve

● WLCW1005CF series



RELIABILITY PERFORMANCE

Reliability Experiment For Electrical

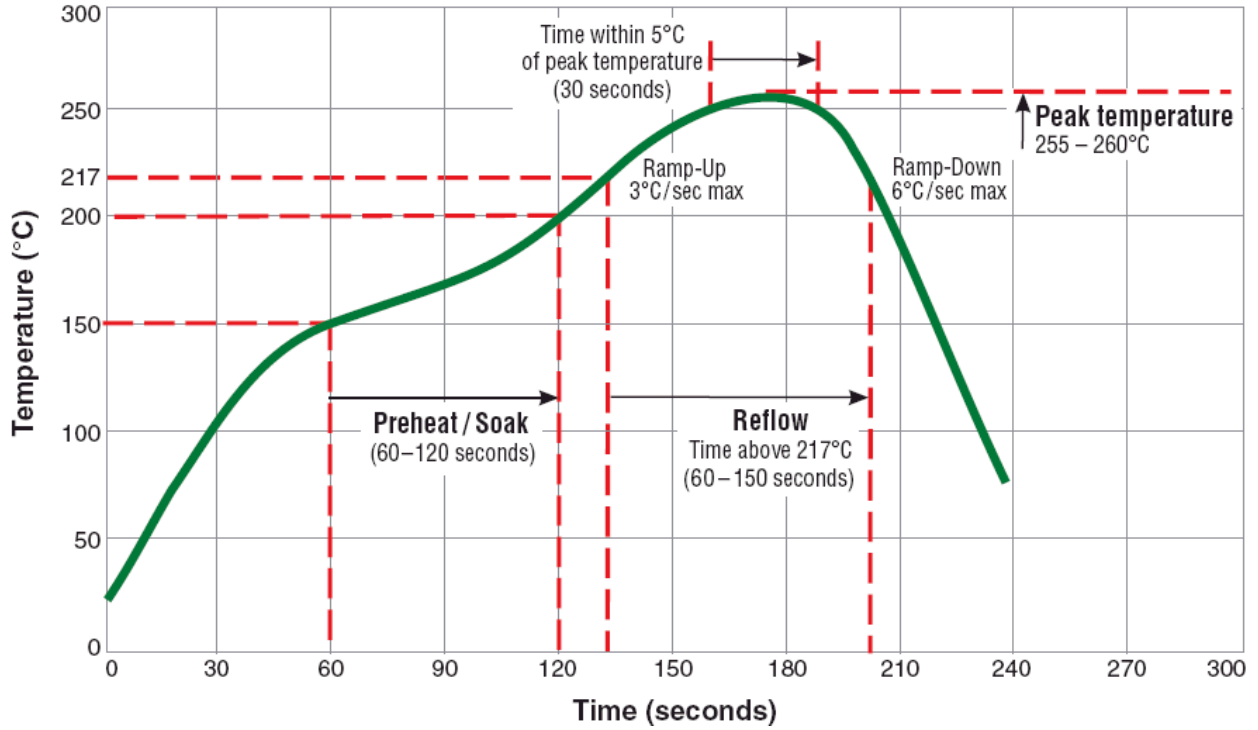
Test Item	Test Condition	Standard Source
Humidity Test	+40°C ± 2°C, humidity of 90% ± 5% (total 96 hours).	MIL-STD-202G Method 103B Test Condition B
High Temperature Test	1. Temperature: +125°C ± 2°C 2. Test time: 48 ± 2hrs	IEC 68-2 Test Condition B
Low Temperature Test	1. Temperature: -40°C ± 2°C 2. Test time: 48 ± 2hrs	IEC 68-2 Test Condition A
Thermal Shock	+125°C ± 5°C (30 minutes) ~ -40 ± 5°C (30 minutes), temperature switch time: 5 minutes (total 50 cycles).	MIL-STD-202G Method 107G Test Condition B-2
Life Test	+70°C ± 5°C (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°C for 5Sec in air, Through 2 Cycle. Temperature Ramp: +1 ~ 4°C/sec; Above 183°C, must keep 90 s - 120 s	MIL-STD-202G Method 210F Test Condition (Reflow)
Solder Ability Test	Soak in 245 °C solder pot of 3Sec, PAD must have 95% above coverage.	J-STD-003B

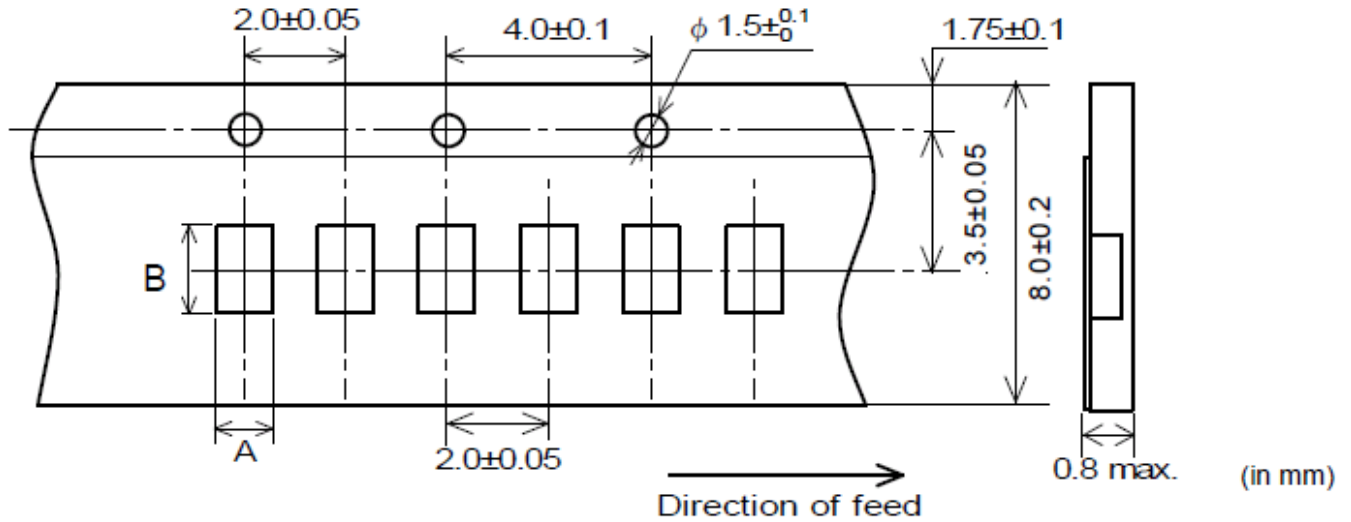
Typical RoHS Reflow Profile

Typical RoHS Reflow Profile



Packaging Specification

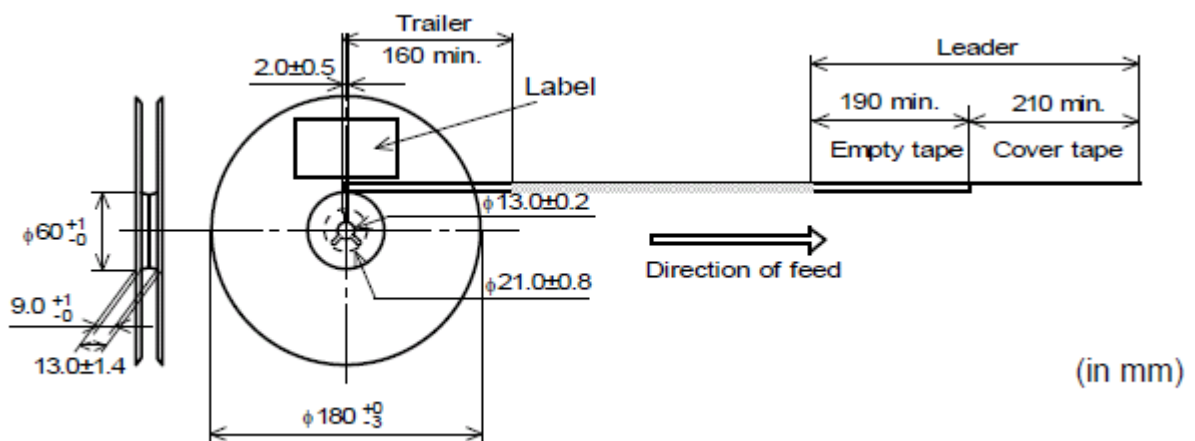
Appearance and Dimensions of paper tape (8mm-wide)



Inductance	A* (mm) (Tolerance ±0.03)	B* (mm) (Tolerance ±0.03)
1N5, 2N4~2N8, 3N9~4N8, 5N8~6N8, 8N2~9N9, 11N, 12N, 15N	0.69	1.18
1N6~1N8, 2N9, 3N0, 3N1, 3N2, 4N9~5N1, 6N9-7N5, 10N, 13N, 16N~23N, R10, R12	0.66	1.18
24N~91N	0.64	1.18

*Typical value

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



Quantity per reel : 10K pcs / reel