

APPROVAL SHEET

WLCW1005CH SMD Wire Wound Ceramic Chip Inductors (High Current)

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

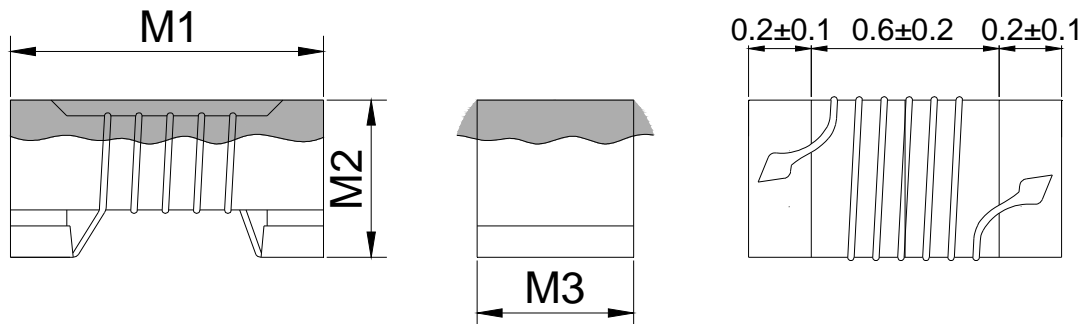
Features

1. Standard chip size bobbin with wire wound coil provides high reliability, productivity and performance.
2. WLCW1005CH Series offers excellent current capability and Q factors.
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.

SHAPE and DIMENSION



Unit: mm

Series	M1	M2	M3
WLCW1005CH	1.0±0.1	0.5±0.1	0.6±0.1

Ordering Information

WL	CW	1005	CH	C	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	CH: Higher current & Q:	B: ± 0.1nH C: ± 0.2nH W: ± 0.5nH G: ± 2% J: ± 5%	1N5 =1.5nH 12N=12nH	T= 7" Paper Tape	B:STD

Electrical Characteristics

● WLCW1005CH series

Walsin Part Number	L (nH)	Inductance Measuring Frequency (MHz)	Tolerance	Q (Min)	Q Measuring Frequency (MHz)	SRF (GHz) Min	RDC Max (Ω)	Rated Current (mA)
WLCW1005CH□1N3TB	1.3	100	C、W	20	250	18.0	0.012	3150
WLCW1005CH□1N5TB	1.5	100	C、W	20	250	18.0	0.028	2100
WLCW1005CH□1N6TB	1.6	100	C、W	20	250	18.0	0.045	1450
WLCW1005CH□1N7TB	1.7	100	C、W	20	250	18.0	0.065	1150
WLCW1005CH□2N2TB	2.2	100	B、C、W、G	30	250	15.5	0.022	2530
WLCW1005CH□2N3TB	2.3	100	B、C、W、G	30	250	15.5	0.022	2530
WLCW1005CH□2N4TB	2.4	100	B、C、W、G	30	250	15.5	0.022	2530
WLCW1005CH□2N5TB	2.5	100	B、C、W、G	30	250	15.5	0.030	2100
WLCW1005CH□2N6TB	2.6	100	B、C、W、G	30	250	14.5	0.035	1950
WLCW1005CH□2N7TB	2.7	100	B、C、W、G	28	250	14.0	0.047	1500
WLCW1005CH□2N8TB	2.8	100	B、C、W、G	27	250	13.5	0.047	1500
WLCW1005CH□2N9TB	2.9	100	B、C、W、G	25	250	12.5	0.047	1500
WLCW1005CH□3N0TB	3.0	100	B、C、W、G	20	250	12.5	0.063	1350
WLCW1005CH□3N3TB	3.3	100	B、C、W、G	30	250	14.0	0.030	2000
WLCW1005CH□3N4TB	3.4	100	B、C、W、G	30	250	10.0	0.030	1950
WLCW1005CH□3N5TB	3.5	100	B、C、W、G	30	250	10.0	0.030	1950
WLCW1005CH□3N6TB	3.6	100	B、C、W、G	30	250	10.0	0.030	1950
WLCW1005CH□3N7TB	3.7	100	B、C、W、G	35	250	10.0	0.030	1950
WLCW1005CH□3N8TB	3.8	100	B、C、W、G	35	250	10.0	0.030	1950
WLCW1005CH□3N9TB	3.9	100	B、C、W、G	35	250	10.0	0.030	1950
WLCW1005CH□4N0TB	4.0	100	B、C、W、G	30	250	10.0	0.030	1950
WLCW1005CH□4N1TB	4.1	100	B、C、W、G	30	250	9.6	0.044	1800
WLCW1005CH□4N2TB	4.2	100	B、C、W、G	30	250	9.6	0.044	1800
WLCW1005CH□4N3TB	4.3	100	B、C、W、G	32	250	9.6	0.044	1800
WLCW1005CH□4N4TB	4.4	100	B、C、W、G	34	250	9.6	0.052	1600
WLCW1005CH□4N5TB	4.5	100	B、C、W、G	34	250	9.6	0.060	1450
WLCW1005CH□4N6TB	4.6	100	B、C、W、G	32	250	9.6	0.060	1450
WLCW1005CH□4N7TB	4.7	100	B、C、W、G	31	250	8.0	0.071	1200
WLCW1005CH□4N8TB	4.8	100	B、C、W、G	30	250	8.0	0.071	1200
WLCW1005CH□4N9TB	4.9	100	B、C、W、G	27	250	8.0	0.071	1200
WLCW1005CH□5N0TB	5.0	100	B、C、W、G	32	250	10.0	0.040	1770
WLCW1005CH□5N1TB	5.1	100	B、C、W、G	35	250	8.0	0.040	1770
WLCW1005CH□5N2TB	5.2	100	B、C、W、G	35	250	8.0	0.040	1770
WLCW1005CH□5N3TB	5.3	100	B、C、W、G	35	250	8.0	0.040	1770
WLCW1005CH□5N4TB	5.4	100	B、C、W、G	35	250	8.0	0.040	1770
WLCW1005CH□5N5TB	5.5	100	B、C、W、G	35	250	8.0	0.040	1770
WLCW1005CH□5N6TB	5.6	100	B、C、W、G	35	250	8.0	0.040	1770

Walsin Part Number	L (nH)	Inductance Measuring Frequency (MHz)	Tolerance	Q (Min)	Q Measuring Frequency (MHz)	SRF (GHz) Min	RDC Max (Ω)	Rated Current (mA)
WLCW1005CH□5N7TB	5.7	100	B、C、W、G	30	250	8.0	0.040	1770
WLCW1005CH□5N8TB	5.8	100	B、C、W、G	30	250	8.0	0.040	1770
WLCW1005CH□5N9TB	5.9	100	B、C、W、G	30	250	8.0	0.040	1770
WLCW1005CH□6N0TB	6.0	100	B、C、W、G	32	250	8.0	0.056	1600
WLCW1005CH□6N1TB	6.1	100	B、C、W、G	32	250	8.0	0.056	1600
WLCW1005CH□6N2TB	6.2	100	B、C、W、G	33	250	8.0	0.056	1600
WLCW1005CH□6N3TB	6.3	100	G、J	32	250	7.8	0.057	1600
WLCW1005CH□6N4TB	6.4	100	G、J	33	250	7.0	0.065	1380
WLCW1005CH□6N5TB	6.5	100	G、J	32	250	7.0	0.065	1380
WLCW1005CH□6N6TB	6.6	100	G、J	30	250	7.0	0.078	1280
WLCW1005CH□6N7TB	6.7	100	G、J	30	250	7.0	0.078	1280
WLCW1005CH□6N8TB	6.8	100	G、J	30	250	7.0	0.068	1450
WLCW1005CH□6N9TB	6.9	100	G、J	32	250	8.5	0.069	1420
WLCW1005CH□7N0TB	7.0	100	G、J	33	250	8.0	0.069	1420
WLCW1005CH□7N1TB	7.1	100	G、J	32	250	7.0	0.069	1420
WLCW1005CH□7N2TB	7.2	100	G、J	32	250	7.0	0.050	1700
WLCW1005CH□7N3TB	7.3	100	G、J	32	250	7.0	0.050	1700
WLCW1005CH□7N4TB	7.4	100	G、J	30	250	7.0	0.050	1700
WLCW1005CH□7N5TB	7.5	100	G、J	35	250	7.0	0.050	1700
WLCW1005CH□7N6TB	7.6	100	G、J	30	250	7.0	0.050	1700
WLCW1005CH□7N7TB	7.7	100	G、J	30	250	7.0	0.050	1700
WLCW1005CH□7N8TB	7.8	100	G、J	30	250	7.0	0.050	1700
WLCW1005CH□7N9TB	7.9	100	G、J	30	250	7.0	0.050	1700
WLCW1005CH□8N0TB	8.0	100	G、J	30	250	7.0	0.050	1700
WLCW1005CH□8N1TB	8.1	100	G、J	32	250	6.5	0.069	1500
WLCW1005CH□8N2TB	8.2	100	G、J	32	250	6.5	0.069	1500
WLCW1005CH□8N3TB	8.3	100	G、J	32	250	6.5	0.069	1500
WLCW1005CH□8N4TB	8.4	100	G、J	32	250	6.5	0.069	1500
WLCW1005CH□8N5TB	8.5	100	G、J	32	250	6.5	0.069	1500
WLCW1005CH□8N6TB	8.6	100	G、J	31	250	6.5	0.070	1420
WLCW1005CH□8N7TB	8.7	100	G、J	31	250	6.5	0.070	1420
WLCW1005CH□8N8TB	8.8	100	G、J	31	250	6.5	0.070	1420
WLCW1005CH□8N9TB	8.9	100	G、J	31	250	6.5	0.070	1420
WLCW1005CH□9N0TB	9.0	100	G、J	30	250	6.5	0.070	1420
WLCW1005CH□9N1TB	9.1	100	G、J	32	250	6.5	0.080	1400
WLCW1005CH□9N2TB	9.2	100	G、J	32	250	6.0	0.081	1400
WLCW1005CH□9N3TB	9.3	100	G、J	34	250	6.0	0.081	1400
WLCW1005CH□9N4TB	9.4	100	G、J	33	250	6.0	0.081	1400
WLCW1005CH□9N5TB	9.5	100	G、J	32	250	6.0	0.081	1400
WLCW1005CH□9N6TB	9.6	100	G、J	33	250	6.0	0.081	1400
WLCW1005CH□9N7TB	9.7	100	G、J	33	250	6.0	0.081	1400

Walsin Part Number	L (nH)	Inductance Measuring Frequency (MHz)	Tolerance	Q (Min)	Q Measuring Frequency (MHz)	SRF (GHz) Min	RDC Max (Ω)	Rated Current (mA)
WLCW1005CH□9N8TB	9.8	100	G、J	34	250	6.0	0.081	1400
WLCW1005CH□9N9TB	9.9	100	G、J	32	250	6.0	0.081	1400
WLCW1005CH□10NTB	10	100	G、J	31	250	6.0	0.081	1400
WLCW1005CH□11NTB	11	100	G、J	32	250	6.2	0.083	1400
WLCW1005CH□12NTB	12	100	G、J	30	250	5.2	0.093	1240
WLCW1005CH□13NTB	13	100	G、J	30	250	5.2	0.093	1240
WLCW1005CH□14NTB	14	100	G、J	31	250	5.2	0.111	1150
WLCW1005CH□15NTB	15	100	G、J	31	250	5.5	0.114	1150
WLCW1005CH□16NTB	16	100	G、J	31	250	5.0	0.126	1000
WLCW1005CH□17NTB	17	100	G、J	30	250	5.0	0.126	1000
WLCW1005CH□18NTB	18	100	G、J	30	250	5.2	0.130	1050
WLCW1005CH□19NTB	19	100	G、J	30	250	5.0	0.156	920
WLCW1005CH□20NTB	20	100	G、J	30	250	4.5	0.186	800
WLCW1005CH□21NTB	21	100	G、J	30	250	4.5	0.202	780
WLCW1005CH□22NTB	22	100	G、J	30	250	4.5	0.202	780
WLCW1005CH□23NTB	23	100	G、J	29	250	4.5	0.201	760
WLCW1005CH□24NTB	24	100	G、J	31	250	4	0.212	770
WLCW1005CH□25NTB	25	100	G、J	31	250	4.1	0.221	750
WLCW1005CH□26NTB	26	100	G、J	29	250	4.1	0.282	720
WLCW1005CH□27NTB	27	100	G、J	30	250	4	0.288	680
WLCW1005CH□30NTB	30	100	G、J	30	250	3.8	0.309	660
WLCW1005CH□33NTB	33	100	G、J	30	250	3.6	0.336	620
WLCW1005CH□36NTB	36	100	G、J	30	250	3.5	0.431	540
WLCW1005CH□39NTB	39	100	G、J	28	250	3.4	0.456	530
WLCW1005CH□43NTB	43	100	G、J	30	250	3.4	0.516	515
WLCW1005CH□47NTB	47	100	G、J	25	200	3.2	0.648	440
WLCW1005CH□51NTB	51	100	G、J	25	200	2.9	0.696	415
WLCW1005CH□53NTB	53	100	G、J	25	200	2.9	0.696	415
WLCW1005CH□56NTB	56	100	G、J	25	200	2.9	0.996	340
WLCW1005CH□68NTB	68	100	G、J	25	200	2.5	1.128	320
WLCW1005CH□75NTB	75	100	G、J	25	200	2.4	1.224	320

Tolerance : J:±5%、G:±2%、W:±0.5nH、C:±0.2nH、B:±0.1nH

Operating Temperature Range. : -55°C ~ +125°C

Storage Temperature Range : -55°C ~ +125°C

※MSL : LEVEL 1

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

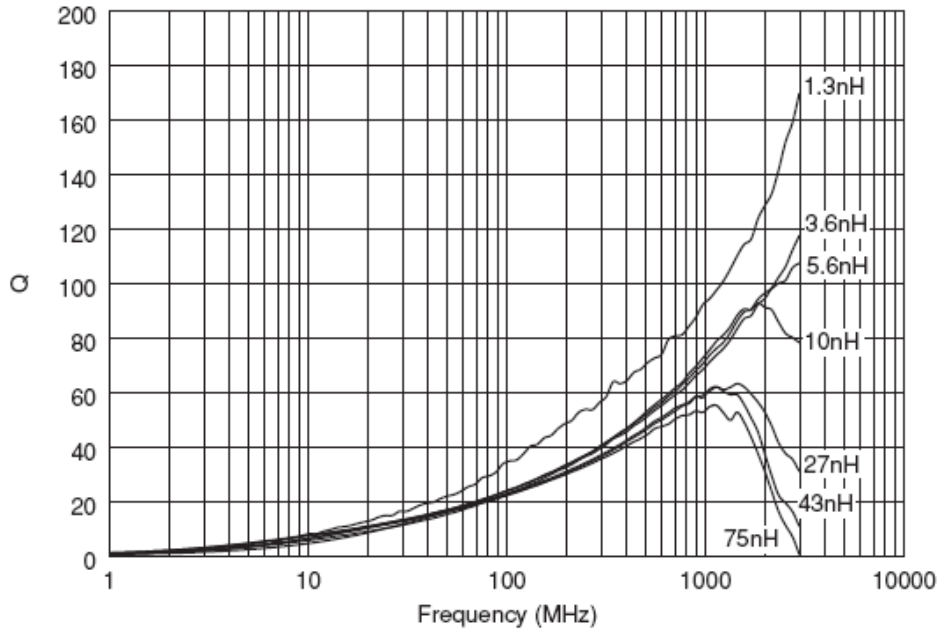
SRF : TESTED BY HP 8753E /HP4291B with 16193A /ENA5071C or its equivalent

DCR: TESTED BY zentech 502BC or its equivalent

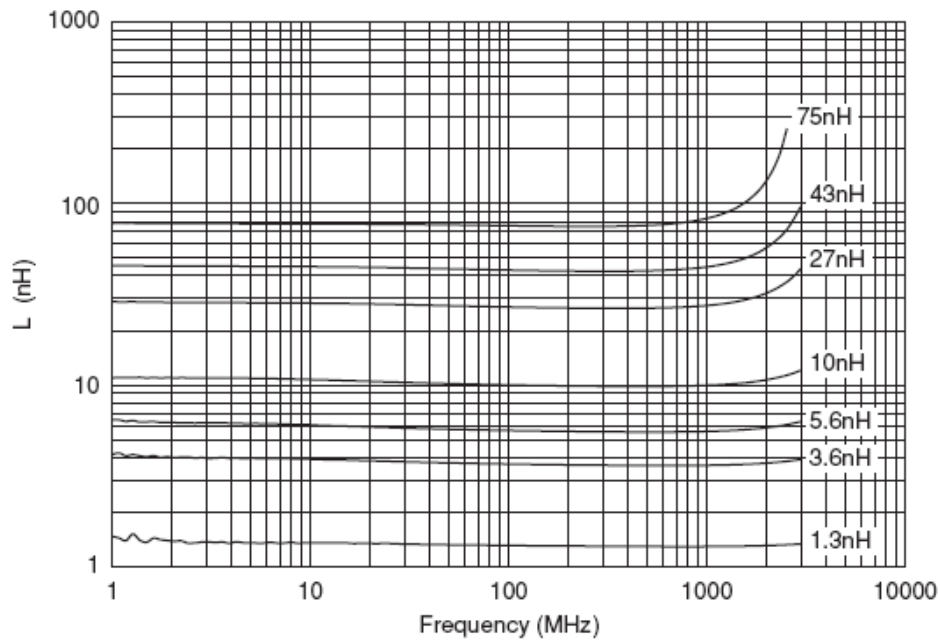
Characteristic Curve

● WLCW1005CH series

Q-Frequency Characteristics(Typ.)



Inductance-Frequency Characteristics(Typ.)



RELIABILITY PERFORMANCE

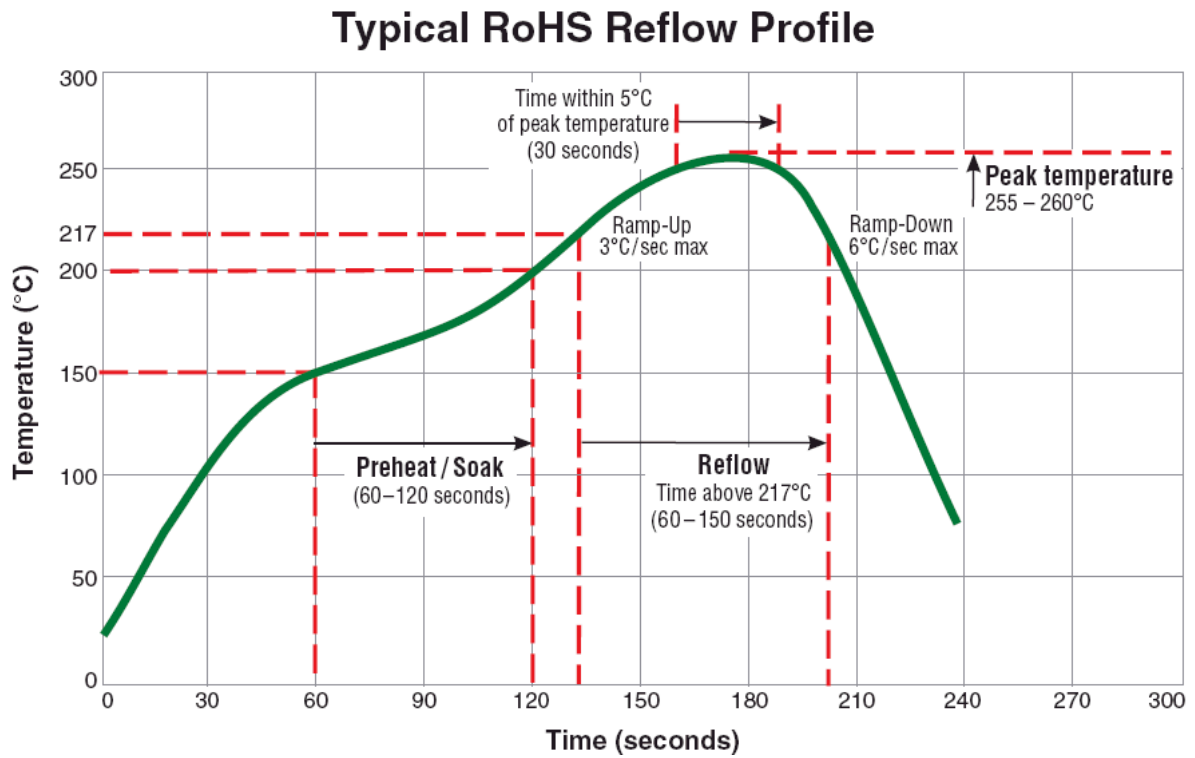
Reliability Experiment For Electrical

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

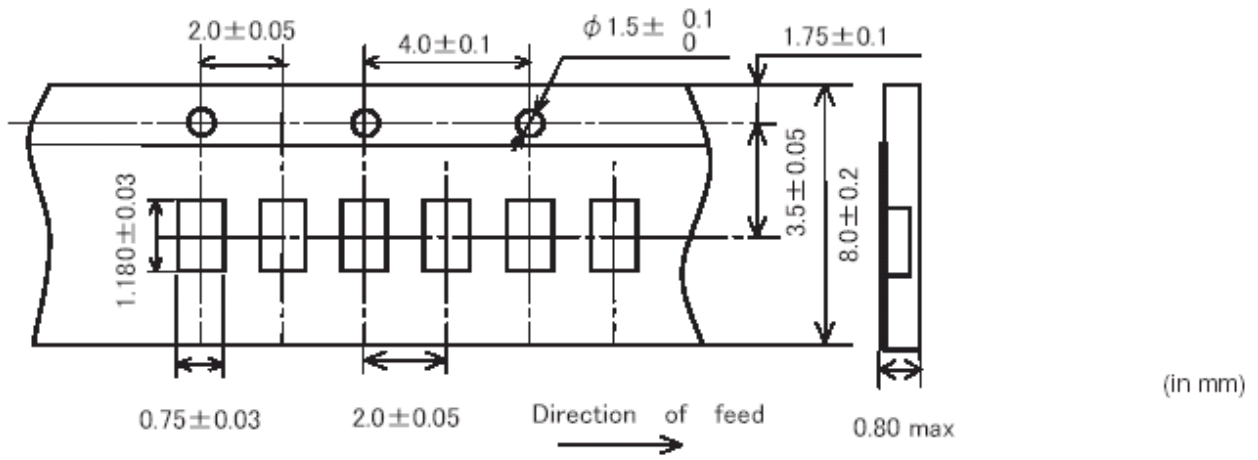
Test Item	Test Condition	Standard Source
Vibration Test	10-55-10HZ, amplitude: 1.5mm, direction: X, Y, Z axes, each axis 2 hours (total 6 hours).	MIL-STD-202G Method 201A
Solder Heat Resistance Test	IR/convection reflow: Peak Temp 250 ± 5°C for 5Sec in air, Through 2 Cycle. Temperature Ramp: +1 ~ 4°C/sec; 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

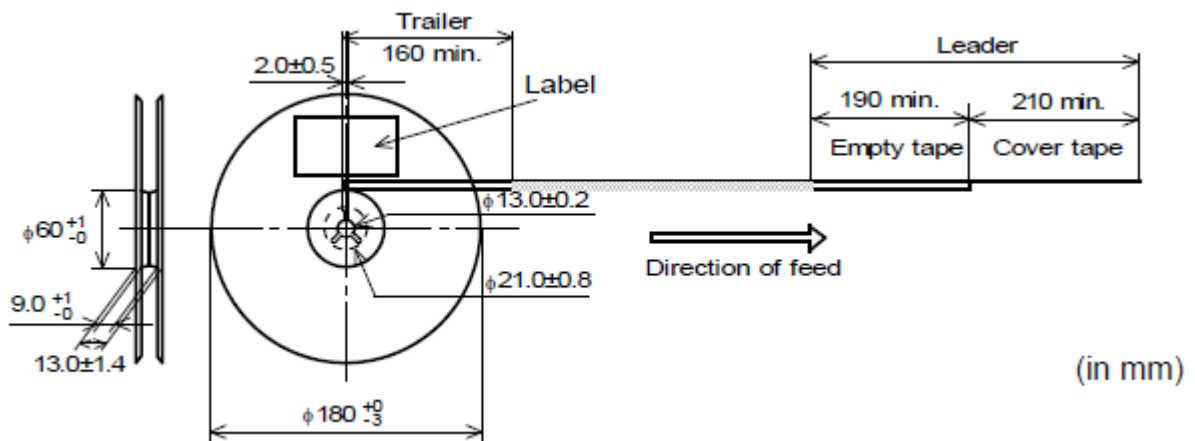


Packaging Specification

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



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



Quantity per reel : 10K pcs / reel