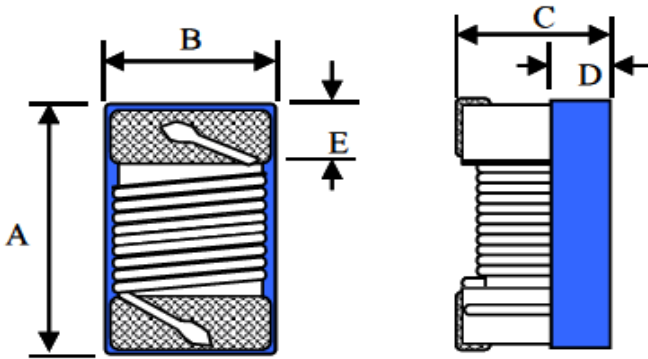


ITEM P/N	SI2012-SERIES	TEST INSTRUMENT	Agilent4291B / 4338B
PRODUCT	High Frequency SMD Inductor	TEST FREQUENCY	250 MHz / 0.1V

**PACKING DIMENSIONS (mm)**

SI2012	Dimensions
A	2.40 MAX
B	1.65 MAX
C	1.45 MAX
D	0.65 REF
E	0.44

**EXPLANATION OF PART NUMBERS**

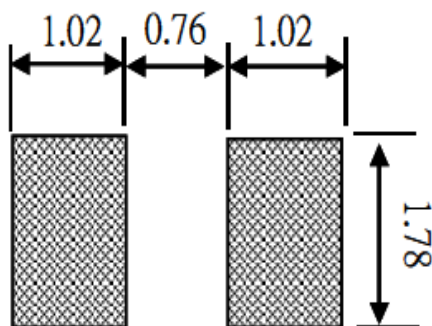
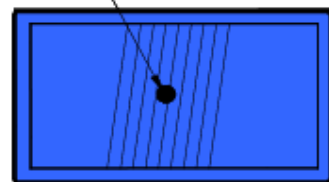
1	2	3	4	5	6	7	8	9	10	
S	I	2	0	1	2	-	2	N	8	J
	①			②			③		④	

1. Product Name
2. Dimensions
3. Inductance Code
4. Inductance Tolerance (G =  $\pm 2\%$  , J =  $\pm 5\%$ , K =  $\pm 10\%$ )

Operating temperature : -40 to +125°C

I<sub>rms</sub> for a 15°C rise above 25°C ambient.

If Use Wave soldering is there will be some risk. Re-flow soldering temperatures below 240 degrees, there will be unwitting risk

**RECOMMENDED FOOTPRINT(Unit:mm)****1st****COLOR CODING**

ITEM P/N	SI2012-SERIES	TEST INSTRUMENT	Agilent4291B / 4338B
PRODUCT	High Frequency SMD Inducto	TEST FREQUENCY	250 MHz / 0.1V

**ELECTRICAL CHARACTERISTICS**

HUNGTRON	Inductance	Inductance	Q/MHz	SRF	DCR	Irms	Color
Part Number	(nH)/MHz	Tolerance	Min.	Min.) MH	( $\Omega$ ) Max	(mA) Max.	Coding
SI2012-2N8□	2.8/250	J,K	55/1500	7900	0.06	800	Gray
SI2012-3N0□	3.0/250	J,K	55/1500	7900	0.08	800	White
SI2012-3N3□	3.3/250	J,K	45/1500	7900	0.12	600	Black
SI2012-5N1□	5.1/250	J,K	60/1000	5800	0.06	600	Yellow
SI2012-5N6□	5.6/250	J,K	65/1000	5500	0.08	600	Orange
SI2012-6N2□	6.2/250	J,K	50/1000	5500	0.11	600	Violet
SI2012-6N8□	6.8/250	J,K	50/1000	5500	0.11	600	Brown
SI2012-7N5□	7.5/250	J,K	50/1000	4500	0.14	600	Green
SI2012-8N2□	8.2/250	J,K	50/1000	4700	0.16	600	Red
SI2012-8N7□	8.7/250	J,K	50/1000	4700	0.23	600	Violet
SI2012-10N□	10/250	G,J,K	60/500	4200	0.10	600	Blue
SI2012-12N□	12/250	G,J,K	50/500	4000	0.15	600	Orange
SI2012-15N□	15/250	G,J,K	50/500	3400	0.17	700	Yellow
SI2012-18N□	18/250	G,J,K	50/500	3300	0.20	600	Green
SI2012-22N□	22/250	G,J,K	55/500	2600	0.22	500	Blue
SI2012-24N□	24/250	G,J,K	50/500	2000	0.22	500	Gray
SI2012-27N□	27/250	G,J,K	55/500	2500	0.25	500	Violet
SI2012-33N□	33/250	G,J,K	60/500	2050	0.27	500	Gray
SI2012-36N□	36/250	G,J,K	55/500	1700	0.27	500	Orange
SI2012-39N□	39/250	G,J,K	60/500	2000	0.29	500	White
SI2012-43N□	43/200	G,J,K	60/500	1650	0.34	500	Yellow
SI2012-47N□	47/200	G,J,K	60/500	1650	0.31	700	Black
SI2012-56N□	56/200	G,J,K	60/500	1550	0.34	500	Brown
SI2012-68N□	68/200	G,J,K	60/500	1450	0.38	500	Red
SI2012-75N□	75/200	G,J,K	60/500	1400	0.40	400	Violet
SI2012-82N□	82/150	G,J,K	65/500	1300	0.42	400	Orange
SI2012-91N□	91/150	G,J,K	65/500	1200	0.48	400	Black
SI2012-R10□	100/150	G,J,K	65/500	1200	0.46	400	Yellow
SI2012-R11□	110/150	G,J,K	50/250	1000	0.48	400	Brown
SI2012-R12□	120/150	G,J,K	50/250	1100	0.51	400	Green
SI2012-R15□	150/100	G,J,K	50/250	920	0.56	400	Blue
SI2012-R16□	160/100	G,J,K	50/250	900	0.60	400	Gray
SI2012-R18□	180/100	G,J,K	50/250	870	0.64	400	Violet
SI2012-R20□	200/100	G,J,K	50/250	865	0.68	400	Red

# CHARACTERISTICS

RoHS  
COMPLIANT

ITEM P/N	SI2012-SERIES	TEST INSTRUMENT	Agilent4291B / 4338B
PRODUCT	High Frequency SMD Inducto	TEST FREQUENCY	250 MHz / 0.1V

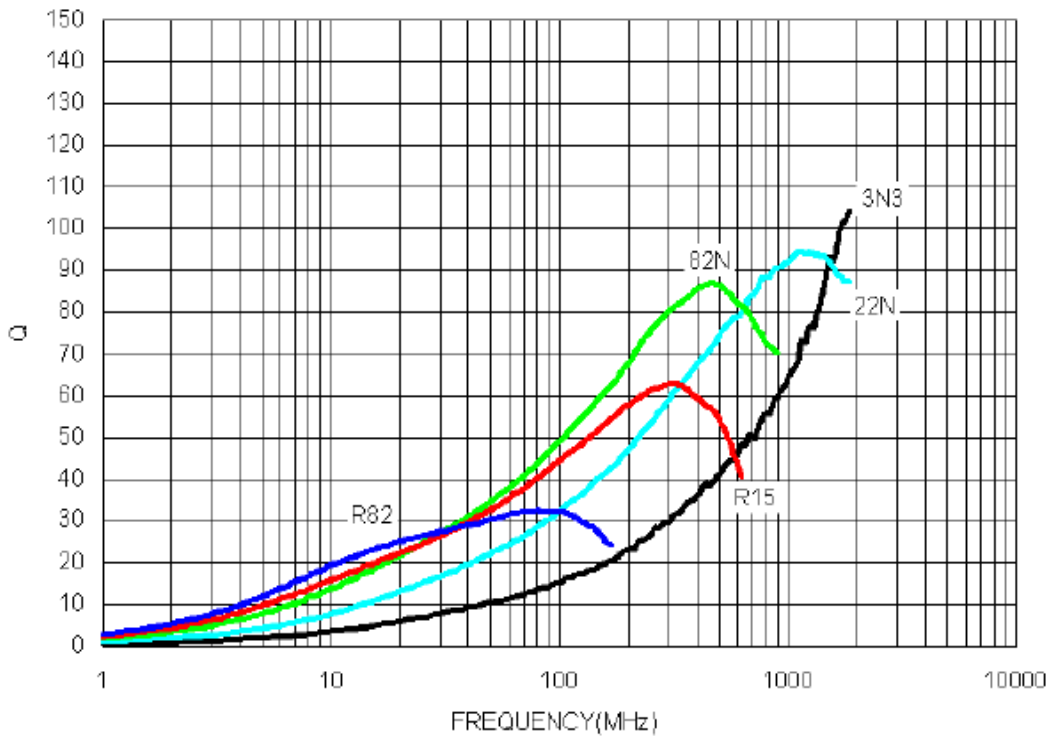
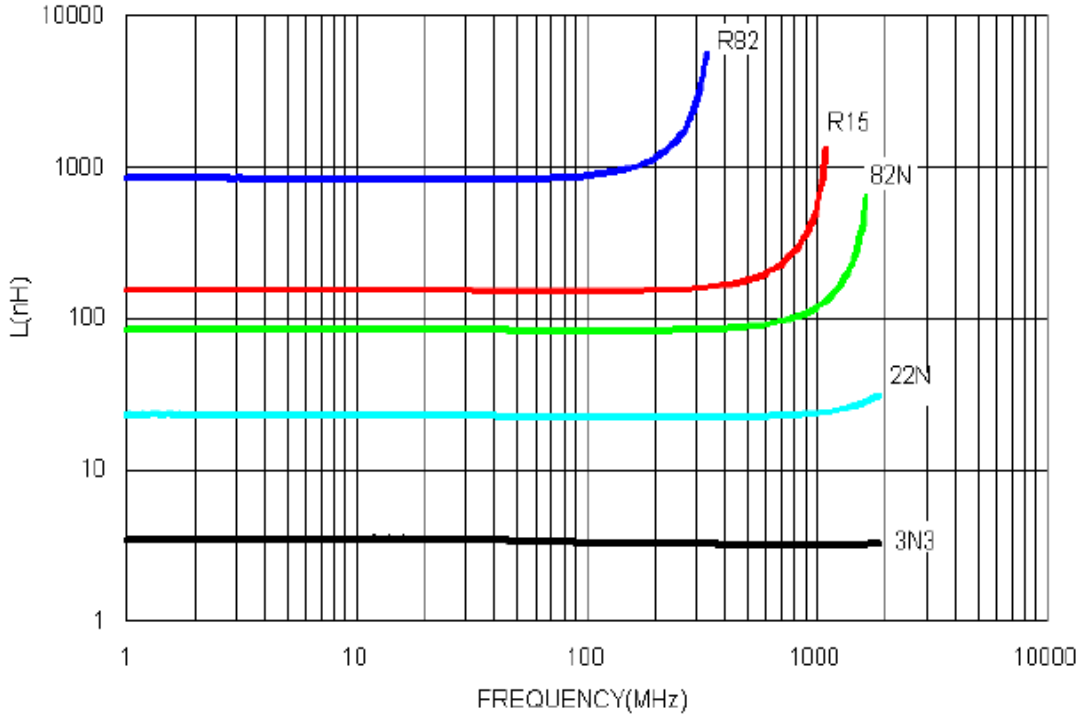
## ELECTRICAL CHARACTERISTICS

HUNGTRON	Inductance	Inductance	Q/MHz	SRF	DCR	I <sub>rms</sub>	Color
Part Number	(nH)/MHz	Tolerance	Min.	Min.) MH	(Ω) Max	(mA) Max.	Coding
SI2012-R22□	220/100	G,J,K	50/250	850	0.70	400	Gray
SI2012-R24□	240/100	G,J,K	44/250	690	1.00	350	Red
SI2012-R25□	250/100	G,J,K	48/250	680	1.00	350	Yellow
SI2012-R27□	270/100	G,J,K	48/250	650	1.00	350	White
SI2012-R33□	330/100	G,J,K	48/250	750	1.40	310	Black
SI2012-R36□	360/100	J,K	48/250	650	1.45	300	Orange
SI2012-R39□	390/100	G,J,K	48/250	560	15.00	290	Brown
SI2012-R43□	430/50	G,J,K	33/100	430	1.70	270	Blue
SI2012-R47□	470/50	G,J,K	30/100	475	1.76	250	Violet
SI2012-R56□	560/25	G,J,K	23/50	340	1.90	230	Orange
SI2012-R62□	620/25	G,J,K	23/50	220	2.20	210	White
SI2012-R68□	680/25	G,J,K	23/50	188	2.20	190	Green
SI2012-R75□	750/25	G,J,K	23/50	200	2.30	180	Violet
SI2012-R82□	820/25	G,J,K	23/50	215	2.35	180	Blue
SI2012-R91□	910/25	J,K	22/50	210	2.40	180	Yellow
SI2012-1R0□	1000/25	G,J,K	22/50	200	2.45	180	Violet
SI2012-1R2□	1200/7.9	G,J,K	16/7.9	160	2.45	170	Green
SI2012-1R5□	1500/7.9	G,J,K	16/7.9	120	2.50	170	Black
SI2012-1R8□	1800/7.9	G,J,K	16/7.9	80	2.50	170	Brown
SI2012-2R2□	2200/7.9	G,J,K	16/7.9	60	2.70	160	Red
SI2012-2R7□	2700/7.9	G,J,K	16/7.9	50	3.80	160	Orange

ITEM P/N	SI2012-SERIES	TEST INSTRUMENT	Agilent4291B / 4338B
PRODUCT	High Frequency SMD Inductor	TEST FREQUENCY	250 MHz / 0.1V

## PERFORMANCE CURVES

### Characteristics(L,Q vs. Frequency)



ITEM P/N	SI2012-SERIES	TEST INSTRUMENT	Agilent4291B / 4338B
PRODUCT	High Frequency SMD Inductor	TEST FREQUENCY	250 MHz / 0.1V

**Reliability and Test Condition**

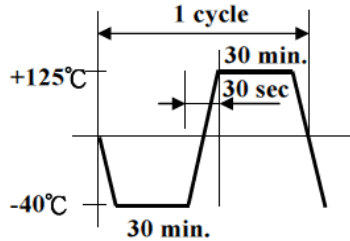
Item	Specifications	Test conditions
Solderability	The metalized area must have 90% minimum solder coverage.	Dip pads in flux and dip in solder pot( 96.5 Sn/3.5 Ag solder) at 255°C ±5°C.
Resistance to soldering heat	There must be no case deformation or change in dimensions. Inductance must not change more than the stated tolerance.	Inductors shall be reflowed onto a PC board using 96.5 Sn/3.5 Ag solder paste. Solder process shall be at a maximum temperature of 260°C. For 96.5 Sn/3.5 Ag solder paste:>217°C for 90 seconds
Vibration	There must be no case deformation or change in dimensions. Inductance must not change more than the stated tolerance.	Solder specimen inductor on the test printed circuit board. Apply vibrations in each of the x,y and z directions for 2 house for a total of 6 hours. Frequency : 10~50 Hz Amplitude : 1.5mm
High temperature resistance	There must be no case deformation or change in dimensions. Inductance must not change more than the stated tolerance.	Inductors shall be subjected to temperature 125±2°C for 50±12 hours. Measure the test items after leaving the inductors at room temperature and humidity for 2 hours.
Static Humidity	Inductors must not have a shorted or openwinding.	Inductors shall be subjected to temperature 85±2°C and 90 to 95%RH. for ten 24-hours. Measure the test items after leaving the inductors at room temperature and humidity for 2 hours.
Component adhesion (push test)	Inductors shall be subjected to 0.9Kg	Inductors shall be reflow soldered (255°C ±5°C for 10 seconds) to a tinned copper substrate. A force gauge shall be applied to the side of the component. The device must withstand the stated force without a failure of the termination.

# CHARACTERISTICS

RoHS  
COMPLIANT

ITEM P/N	SI2012-SERIES	EST INSTRUMEN	Agilent4291B / 4338B
PRODUCT	High Frequency SMD Inductor	EST FREQUENC	250 MHz / 0.1V

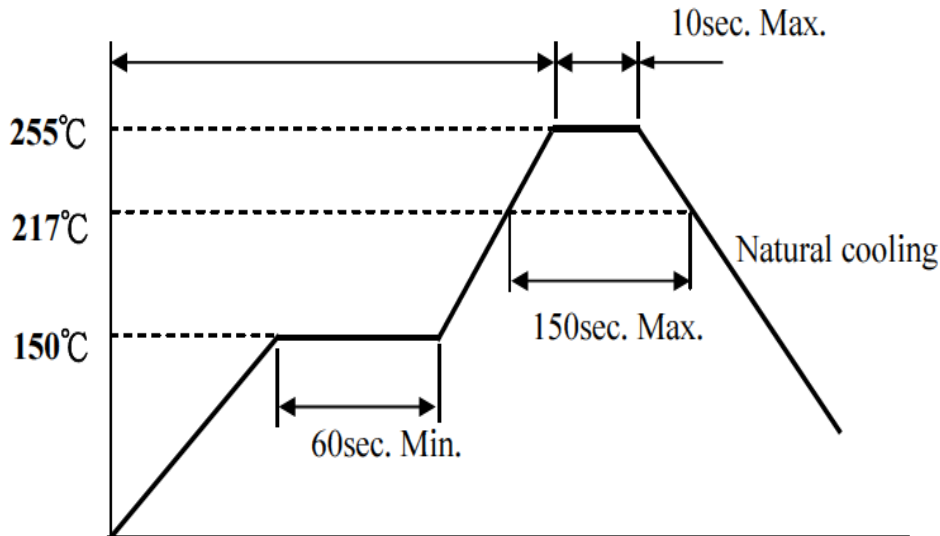
## Reliability and Test Condition

Item	Specifications	Test conditions
Low temperature storage	There must be no case deformation or change in dimensions. Inductance must not change more than the stated tolerance.	Inductors shall be subjected to temperature $-40\pm 2^{\circ}\text{C}$ for $48\pm 12$ hours. Measure the test items after leaving the inductors at room temperature and humidity for 1 to 2 hours.
Resistance to solvent	There must be no case deformation, change in dimensions, or obliteration of marking.	Inductors must withstand 6 minutes of alcohol or water.
Thermal shock	There must be no case deformation or change in dimensions. Inductance must not change more than the stated tolerance.	Inductors shall be subjected to 10 cycles to the the following temperature cycle:   <p>Measure the test items after leaving the inductors at room temperature and humidity for 2 hours.</p>

ITEM P/N	SI2012-SERIES	TEST INSTRUMENT	Agilent4291B / 4338B
PRODUCT	High Frequency SMD Inductor	TEST FREQUENCY	250 MHz / 0.1V

## Recommended Reflow Pattern

Reflow : until two times



## Iron Soldering

Use a solder iron of less than 30W when soldering, do not allow the soldering iron to directly touch the Ceramic body outside of terminal electrode.

4 seconds max. at 260°C.

## Attention in Case of Using

In case of using product, please avoid following matters:

Splashing water or salt water

Dew condenses

Toxic gas (Hydrogen sulfide, Sulfurous acid, Chlorine, Ammon)

Vibrations or shocks which exceed the specified condition

Please be careful for the stress to this product by board flexure or something after the mounting.

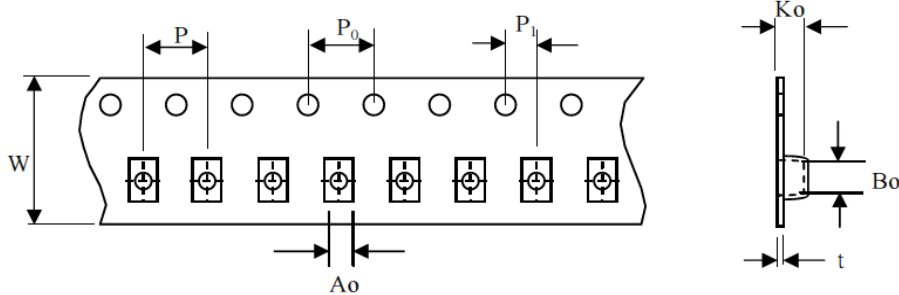
## Others

- 1 Operating temperature range : Ceramic Series : -40~+125°C
- 2 Storage condition : Temperature 20°~25°C, Relative Humidity 40%~60%
- 3 Recommended wire wound inductors should be used within 6 months from the time of delivery.

ITEM P/N	SI2012-SERIES	TEST INSTRUMENT	Agilent4291B / 4338B
PRODUCT	High Frequency SMD Inductor	TEST FREQUENCY	250 MHz / 0.1V

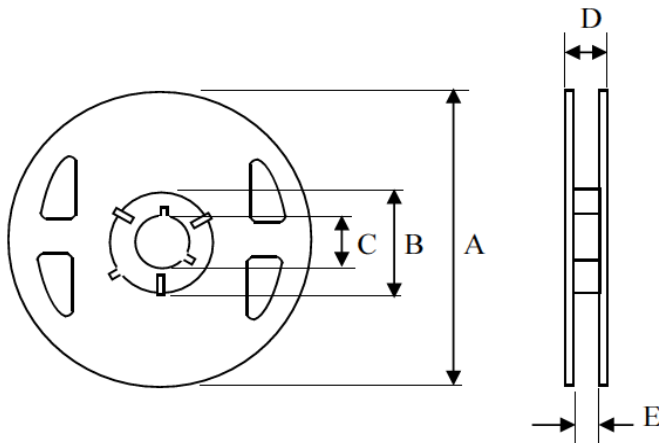
**Packaging**

The packaging must be done not to receive any damage during transporting and storing.

**Tape dimensions**

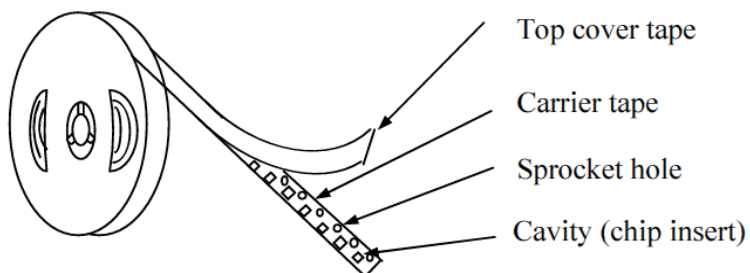
(Dimensions in mm; Tolerance : ±0.1)

Symbol	W	P	P <sub>0</sub>	P <sub>1</sub>	A <sub>o</sub>	B <sub>o</sub>	K <sub>o</sub>	t
Dimension	8	4	4	2	1.75	2.55	1.30	0.22

**Reel dimensions**

(Dimensions in mm)

Symbol	T
A	180
B	60
C	13
D	14.4
E	8.4

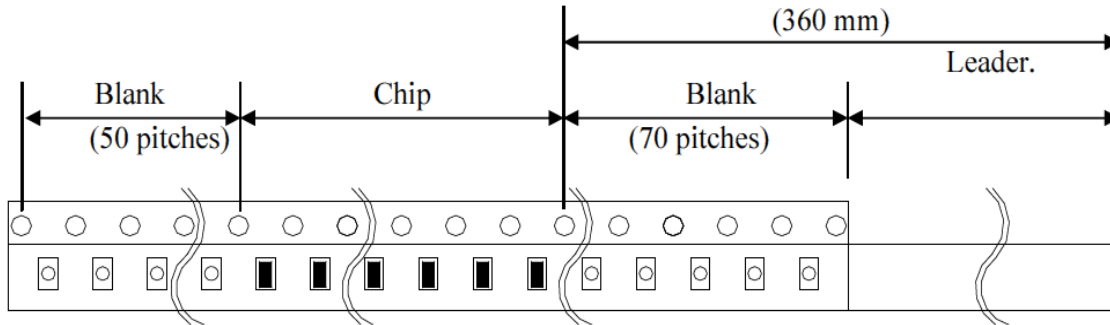
**Tapping figure**



ITEM P/N	SI2012-SERIES	TEST INSTRUMENT	Agilent4291B / 4338B
PRODUCT	High Frequency SMD Inductor	TEST FREQUENCY	250 MHz / 0.1V

### Packaging Form

There shall not continuation more than two vacancies of the product.



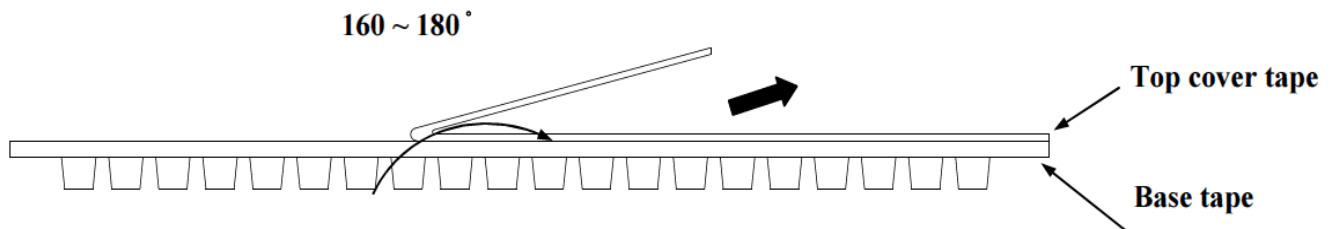
### Cover Tape Peel Strength

The force for tearing off cover tape is 0.1~0.6(N) in the arrow direction at the following conditions:

Temperature : 5 ~ 35°C

Humidity : 45 ~ 85%

Atmospheric pressure : 860 ~ 1060 hpa



### Packing Quantity

φ180 mm reel type : 2,000 pcs./reel