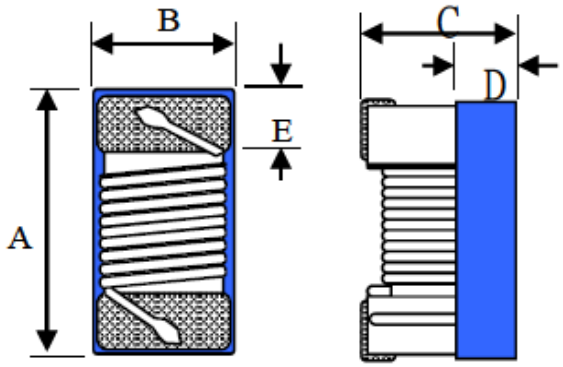
Version: 1.0

COIL SPECIFICATION

RoHS COMPLIANT

ITEM P/N	SF2012L-SERIES	TEST INSTRUMENT	Agilent4291B / Agilent4338B
PRODUCT	SMD Inductor For Power Line	TEST FREQUENCY	1.0 ~ 7.9 MHz / 0.5V

PACKING DIMENSIONS (mm)



SF2012L	Dimensions
A	2.4 MAX
B	1.65 MAX
C	1.2 ± 0.1
D	0.65 REF
E	0.44 ± 0.1

EXPLANATION OF PART NUMBERS

1	2	3	4	5	6	7	8	9	10	11
S	F	2	0	1	2	L	- R	4	7	K
①			②			③		④		⑤

1. Product Name
2. Dimensions
3. Material
4. Inductance Code
5. Inductance Tolerance (J = ±5% , K = ±10% , M = ±20%)

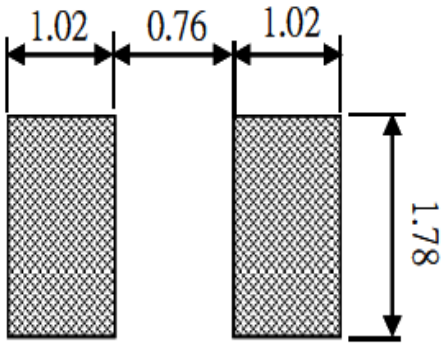
Operating temperature : -25 to +85℃

Idc for Inductance drop 10% from its value without current.

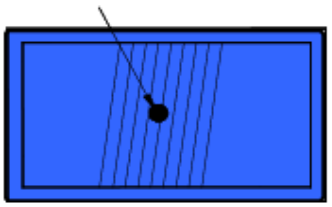
Irms for a 15℃ rise above 25℃ ambient.

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

HUNG TRON

HUNGTRON TECHNOLOGY Co.,Ltd.

Version: 1.0

CHARACTERISTICS

RoHS COMPLIANT

ITEM P/N	SF2012L-SERIES	TEST INSTRUMENT	Agilent4291B / Agilent4338B
PRODUCT	SMD Inductor For Power Line	TEST FREQUENCY	1.0 ~ 7.9 MHz / 0.5V

ELECTRICAL CHARACTERISTICS

HUNGTRON Part Number	Inductance (uH)/MHz	Inductance Tolerance	Q/MHz Typ.	SRF (MHz) typ.	DCR (Ω) ± 30%	I dc (mA) typ	I rms (mA) Typ.	Color Coding
SF2012L-R47☐	0.47/7.9	K,M	14/7.9	850	0.12	1400	1500	Blue
SF2012L-R68☐	0.68/7.9	K,M	14/7.9	765	0.15	1200	1300	Gray
SF2012L-1R0☐	1.0/7.9	K,M	14/7.9	208	0.13	1100	1300	Black
SF2012L-1R2☐	1.2/7.9	K,M	14/7.9	159	0.16	960	1270	Red
SF2012L-1R5☐	1.5/7.9	K,M	14/7.9	159	0.17	920	1260	Brown
SF2012L-1R8☐	1.8/7.9	K,M	14/7.9	112	0.20	860	1080	Orange
SF2012L-2R2☐	2.2/7.9	K,M	13/7.9	87	0.22	740	1040	Red
SF2012L-2R7☐	2.7/7.9	K,M	13/7.9	72	0.25	680	1040	Yellow
SF2012L-3R3☐	3.3/7.9	K,M	12/7.9	70	0.28	620	1020	Orange
SF2012L-3R9☐	3.9/7.9	K,M	14/7.9	61	0.38	580	960	Green
SF2012L-4R7☐	4.7/7.9	K,M	14/7.9	51	0.43	520	840	Yellow
SF2012L-5R6☐	5.6/7.9	K,M	12/7.9	47	0.50	480	800	Blue
SF2012L-6R8☐	6.8/7.9	K,M	14/7.9	46	0.68	420	700	Green
SF2012L-8R2☐	8.2/7.9	K,M	13/7.9	33	0.73	400	680	Violet
SF2012L-100☐	10/2.5	J,K,M	14/2.5	31	0.85	360	560	Blue
SF2012L-120☐	12/2.5	J,K,M	14/2.5	30	0.90	340	460	Gray
SF2012L-150☐	15/2.5	J,K,M	15/2.5	28	1.40	300	380	Violet
SF2012L-180☐	18/2.5	J,K,M	15/2.5	27	1.55	280	360	White
SF2012L-220☐	22/2.5	J,K,M	15/2.5	20	1.76	240	340	Gray
SF2012L-270☐	27/2.5	J,K,M	15/2.5	17	2.00	220	300	Black
SF2012L-330☐	33/2.5	J,K,M	15/2.5	17	2.35	200	300	White
SF2012L-470☐	47/2.5	J,K,M	14/2.5	15	3.40	160	280	Black
SF2012L-560☐	56/2.5	J,K,M	14/2.5	10	4.42	150	240	Yellow
SF2012L-680☐	68/2.5	J,K,M	14/2.5	10	4.45	140	240	Brown
SF2012L-820☐	82/2.5	J,K,M	14/2.5	10	7.50	100	180	Orange
SF2012L-101☐	100/1.0	J,K,M	10/1.0	9	7.50	100	180	Red

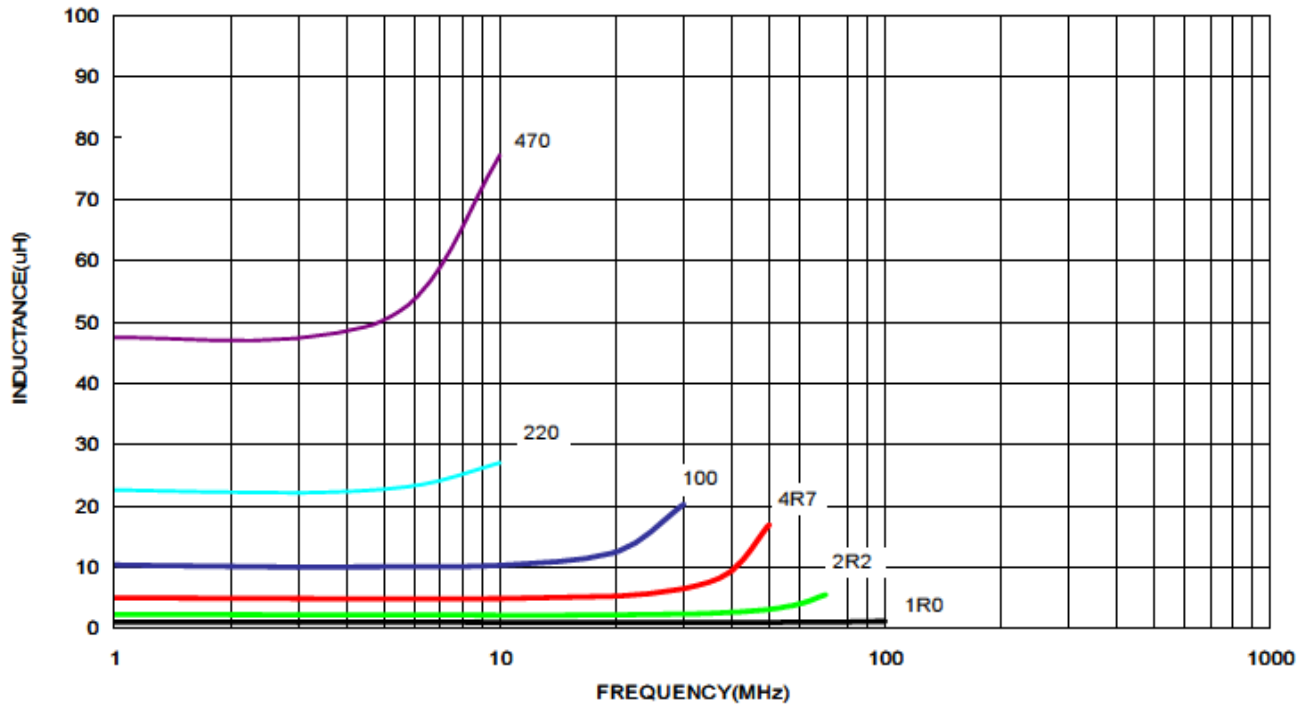
Version: 1.0

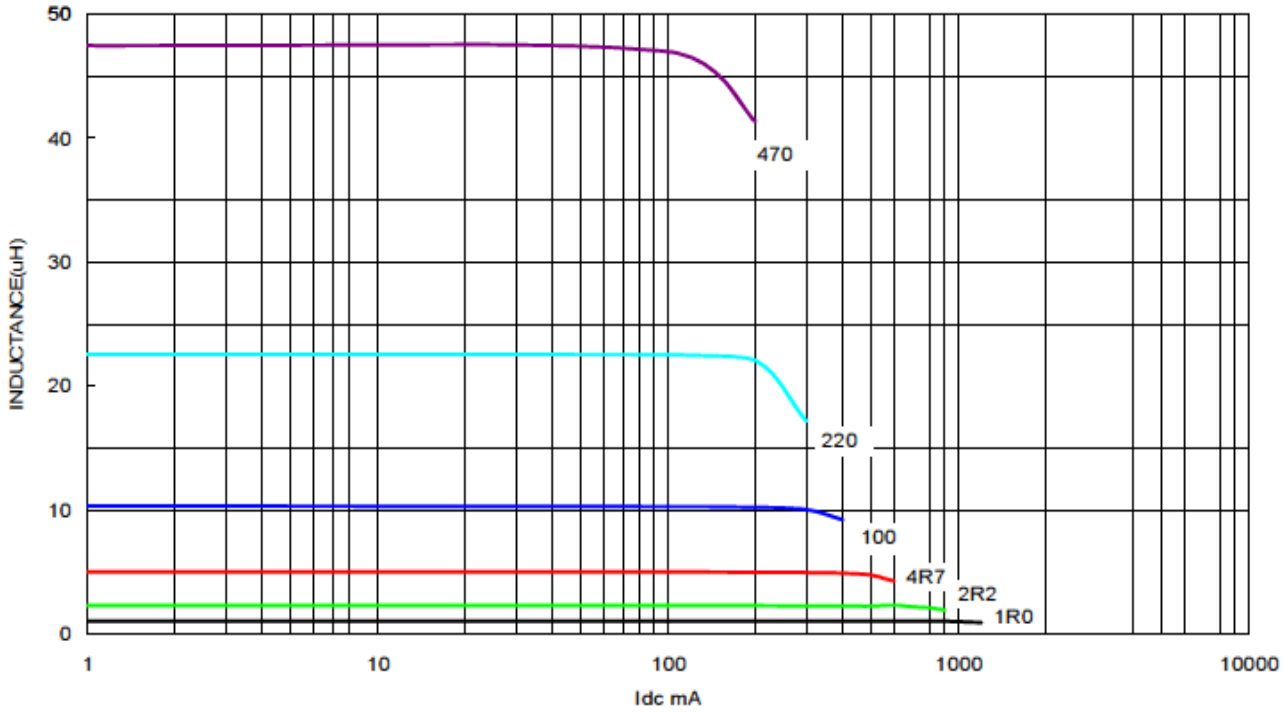
CHARACTERISTICS

RoHS COMPLIANT

ITEM P/N	SF2012L-SERIES	TEST INSTRUMENT	Agilent4291B / Agilent4338B
PRODUCT	SMD Inductor For Power Line	TEST FREQUENCY	1.0 ~ 7.9 MHz / 0.5V

Characteristics(L,Q vs. Frequency)





Version: 1.0

CHARACTERISTICS

RoHS COMPLIANT

ITEM P/N	SF2012L-SERIES	TEST INSTRUMENT	Agilent4291B / Agilent4338B
PRODUCT	SMD Inductor For Power Line	TEST FREQUENCY	1.0 ~ 7.9 MHz / 0.5V

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℃ 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℃ 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.

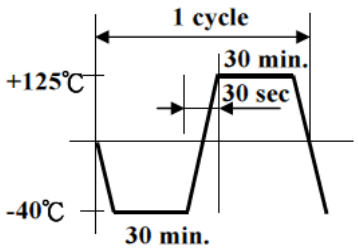
Version: 1.0

CHARACTERISTICS

RoHS COMPLIANT

ITEM P/N	SF2012L-SERIES	TEST INSTRUMENT	Agilent4291B / Agilent4338B
PRODUCT	SMD Inductor For Power Line	TEST FREQUENCY	1.0 ~ 7.9 MHz / 0.5V

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±2℃ for 48±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:  Measure the test items after leaving the indu at room temperature and humidity for 2 hou

CHARACTERISTICS

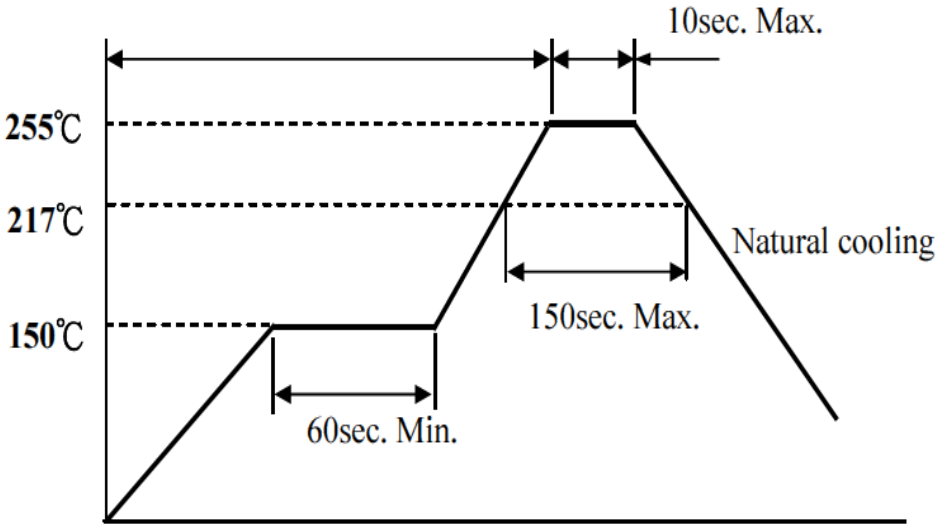
RoHS COMPLIANT

ITEM P/N	SF2012L-SERIES	TEST INSTRUMENT	Agilent4291B / Agilent4338B
PRODUCT	SMD Inductor For Power Line	TEST FREQUENCY	1.0 ~ 7.9 MHz / 0.5V

Soldering and Mounting

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 t directly touch the Ceramic body outside of terminal electrode.

4 seconds max. at 260℃.

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℃

2 Storage condition : Temperature 20°~25℃, Relative Humidity 40%~60%

3 Recommended wire wound inductors should be used within 6 months from the time of delivery.

PACKING FOR SMD

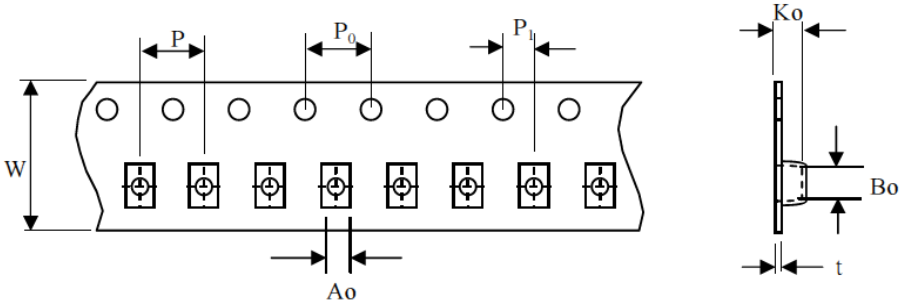
RoHS COMPLIANT

ITEM P/N	SF2012L-SERIES	TEST INSTRUMENT	Agilent4291B / Agilent4338B
PRODUCT	SMD Inductor For Power Line	TEST FREQUENCY	1.0 ~ 7.9 MHz / 0.5V

Packaging

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

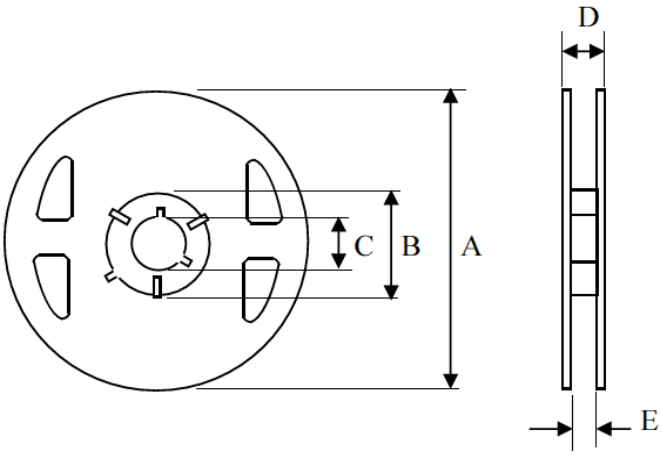
Tape dimensions



(Dimensions in mm; Tolerance : ±0.1)

Symbol	W	P	P_0	P_1	Ao	Bo	Ko	t
Dimension	8	4	4	2	1.75	2.55	1.30	0.22

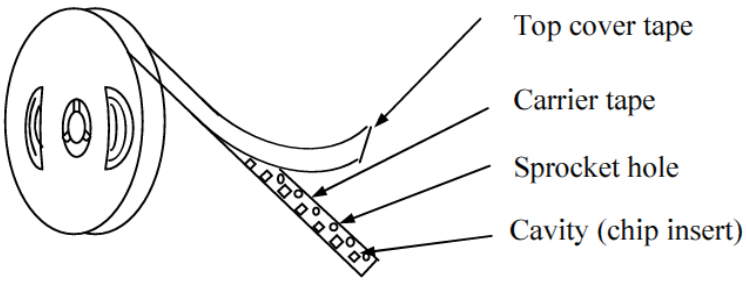
Reel dimensions



(Dimensions in mm)

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

Tapping figure



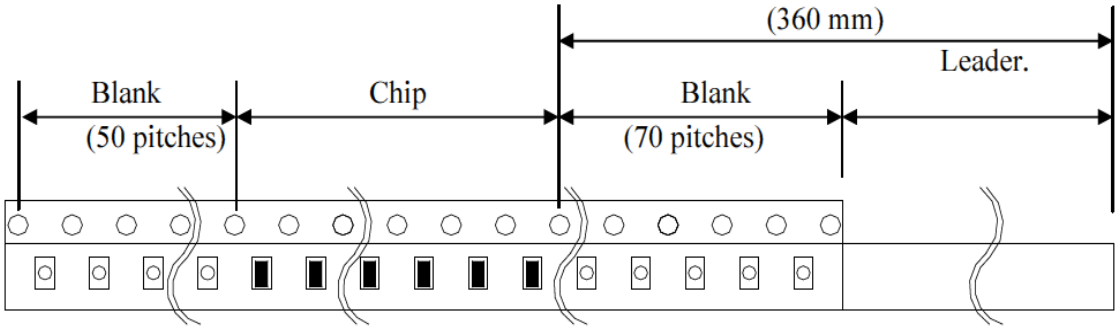
PACKING FOR SMD

RoHS COMPLIANT

ITEM P/N	SF2012L-SERIES	TEST INSTRUMENT	Agilent4291B / Agilent4338B
PRODUCT	SMD Inductor For Power Line	TEST FREQUENCY	1.0 ~ 7.9 MHz / 0.5V

Packaging Form

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



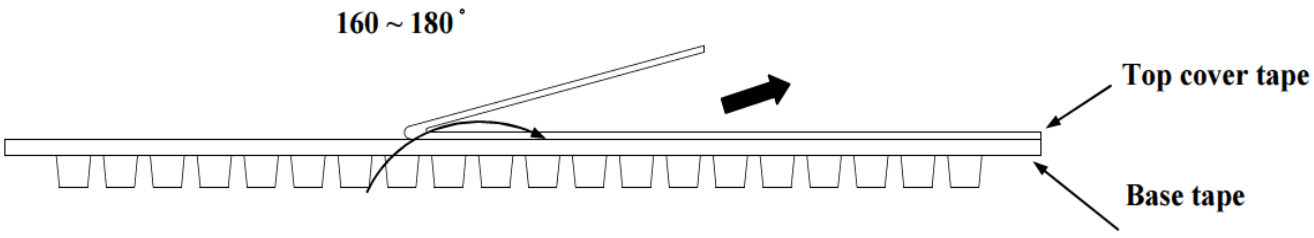
Cover Tape Peel Strength

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

Temperature : 5 ~ 35℃

Humidity : 45 ~ 85%

Atmospheric pressure : 860 ~ 1060 hpa



Packing Quantity

φ180 mm reel type : 2,000 pcs./reel