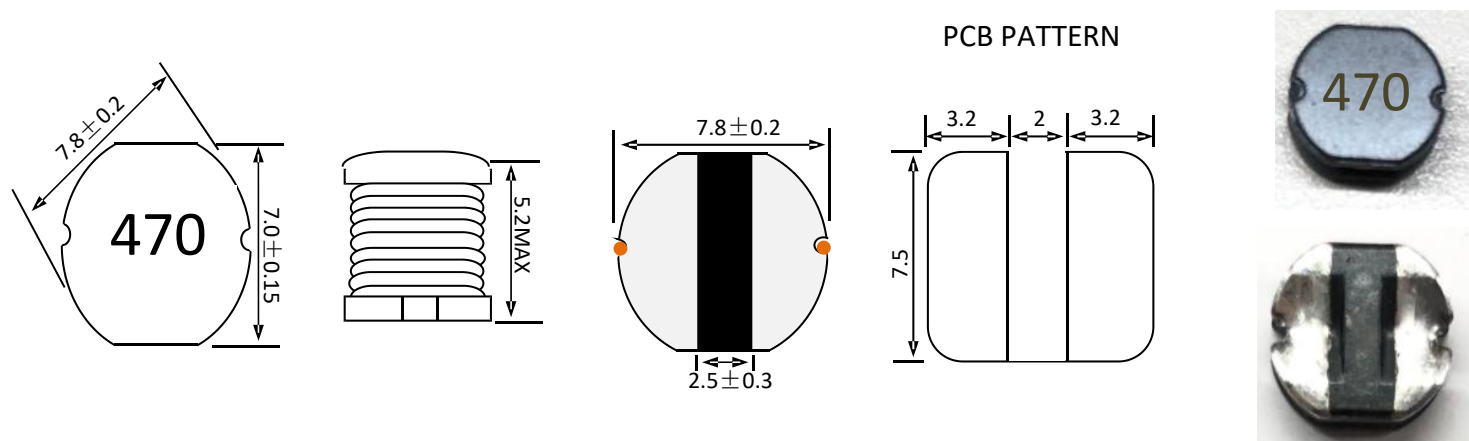
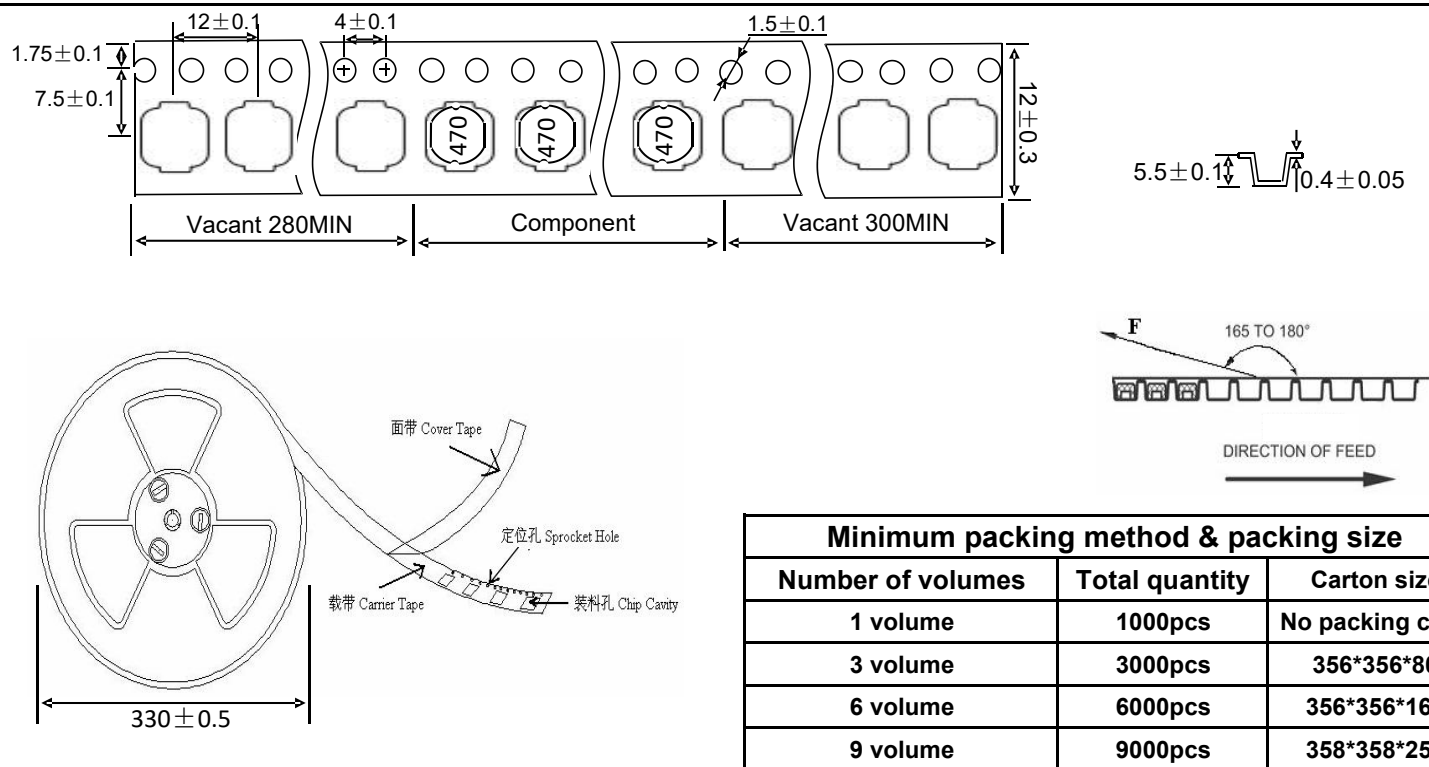


### ● Dimension & Appearance (Unit:mm)



### ● Packing method and dimension and Printing Direction(Unit:mm)



#### Minimum packing method & packing size

| Number of volumes | Total quantity | Carton size     |
|-------------------|----------------|-----------------|
| 1 volume          | 1000pcs        | No packing case |
| 3 volume          | 3000pcs        | 356*356*80      |
| 6 volume          | 6000pcs        | 356*356*167     |
| 9 volume          | 9000pcs        | 358*358*252     |

### ● Material list

| Item | Material Name      | Material Spec                 |  |
|------|--------------------|-------------------------------|--|
| 1    | Magnetic materials | N5H SDM 7.8*5.0 B:3.0 F:2.6   |  |
| 2    | Enameled wire      | G1-H                          |  |
| 3    | Tin                | Environment-friendly unleaded |  |
| 4    | The packing way    | Concave plastic belt pc       |  |
| 5    | The packing way    | Plastic disc                  |  |
| 6    |                    |                               |  |
| 7    |                    |                               |  |
| 8    |                    |                               |  |
| 9    |                    |                               |  |
| 10   |                    |                               |  |

● **Electrical characteristic**

L: 47±10% AT 100 (KHz) 0.25 V

DCR: 208 (mΩ)MAX AT 25 °C

IDC: 1.5 (A)MAX AT 100 (KHz) 0.25 V

|                   | Inductance & Tolerance<br>(uH) | Test Freq<br>(KHz) | Test Vol<br>(V) | DC Resistance Max<br>(mΩ)MAX | Rated DC Current<br>(A)MAX |
|-------------------|--------------------------------|--------------------|-----------------|------------------------------|----------------------------|
| Testing Standards | 47±10%                         | 100                | 0.25            | 208                          | 1.5<br>(≥90% Ls)           |
| 1                 | 47.08                          | 100                | 0.25            | 160.7                        | OK                         |
| 2                 | 47.27                          | 100                | 0.25            | 167.2                        | OK                         |
| 3                 | 47.06                          | 100                | 0.25            | 160.6                        | OK                         |
| 4                 | 47.61                          | 100                | 0.25            | 162.0                        | OK                         |
| 5                 | 47.13                          | 100                | 0.25            | 163.1                        | OK                         |
| 6                 | 47.05                          | 100                | 0.25            | 159.2                        | OK                         |
| 7                 | 46.39                          | 100                | 0.25            | 160.5                        | OK                         |
| 8                 | 46.29                          | 100                | 0.25            | 160.4                        | OK                         |
| 9                 | 47.83                          | 100                | 0.25            | 158.3                        | OK                         |
| 10                | 47.53                          | 100                | 0.25            | 158.7                        | OK                         |
| X                 | 47.12                          | /                  | /               | 161.06                       | /                          |

**● Reliability Testing Items**

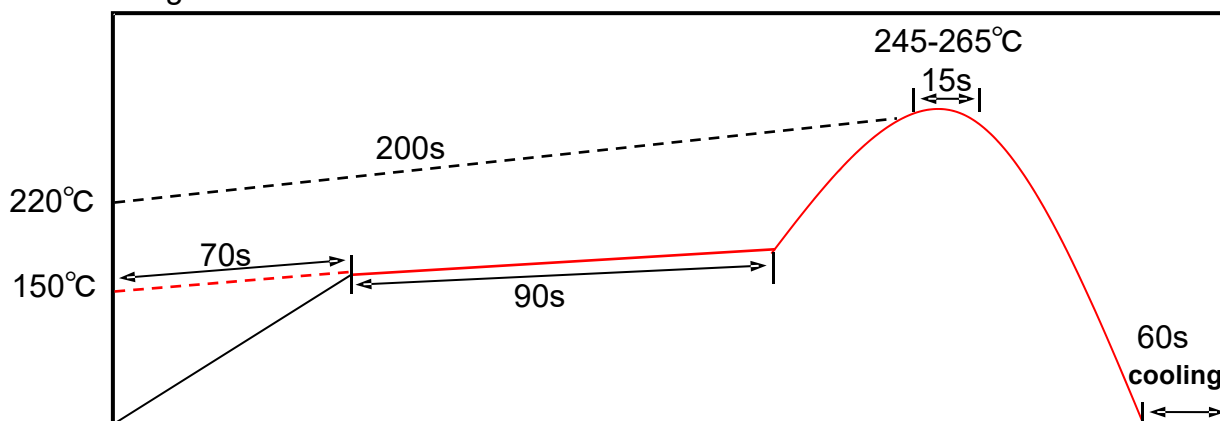
| No. | Items                          | Requirements                                                                                                                                   | Test Methods and Remarks                                                                                                                         |
|-----|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Operating Temperature Range    | -40℃ ~ +125℃                                                                                                                                   | Including self-heating temperature rise.                                                                                                         |
| 2   | Soldering Resistance           | 1.No visible mechanical damage<br>2.Inductance change:within ±10%                                                                              | Dip pads in flux and dip in solder pot (96.5sn/3.0Ag/0.5Cu) at 260±5℃ for 10±1 seconds                                                           |
| 3   | Solderability                  | 90%or more of electrode area shall be coated by new solder                                                                                     | Dip pads in flux and dip in solder pot (96.5sn/3.0Ag/0.5Cu) at 260±5℃ for 5±1 seconds                                                            |
| 4   | Insulation Resistance          | ≥100M Ω                                                                                                                                        | 100V DC between inductor coil and core for 60 seconds                                                                                            |
| 5   | Component Adhesion (Push test) | ≥2.0kgf                                                                                                                                        | Inductors shall be subjected to 260±5℃ for 20±5sec Soldering in the base with 0.3mm solder.And then apply electrode with 2.0kgf for ten seconds. |
| 6   | Over loading                   | 1.There shall be no case deformation or change in appearance<br>2.The electrical characteristics of inductor to meet the requirements of spec. | Apply twice as rated current for five minutes between inductor terminals,direct current error ±2%                                                |
| 7   | Temperature change             | 1.There shall be no case deformation or change in appearance<br>2.Inductance shall not change more than ±10%.                                  | +125℃ 1 hour←→-40℃ 1 hour 5 Cycles,Inductors are to be tested after 1 hour at room temperature                                                   |
| 8   | High temperature               | 1.There shall be no case deformation or change in appearance<br>2.Inductance shall not change more than ±10%.                                  | Inductors shall be subjected to+105±5℃for 96±2 hour,Inductors are to be tested after one hour at room temperature                                |
| 9   | Low temperature                | 1.There shall be no case deformation or change in appearance<br>2.Inductance shall not change more than ±10%.                                  | Inductors shall be subjected to-40±5℃for 96±2 hour,Inductors are to be tested after one hour at room temperature                                 |
| 10  | Life                           | 1.There shall be no case deformation or change in appearance<br>2.Inductance shall not change more than ±10%.                                  | Inductors shall be stored at+105±5℃ for 1000 hours with rated current applied, Normal temperature test                                           |

## ● Recommend Soldering Conditions

Applicable soldering process to the products is reflow soldering.

### Soldering Profile

#### (1) Reflow Soldering Profile



#### (2) Soldering Iron

Reworking with Soldering Iron must preheating at 150°C for 1 minute is required, and do not directly touch the core with the tip of the soldering iron. The reworking soldering conditions are as follows:

- ① Temperature of soldering iron tip: 350°C;
- ② Soldering iron power output: 30W max.
- ③ Diameter of soldering iron end: 1.0mm max.
- ④ Soldering time: within 3 sec.



## ● Storage Requirements

### ( 1 ) Storage Period

To maintain the solderability of terminal electrodes and to keep the packing material in good condition, product should be used within 6 months from the time of delivery. And the solderability of products electrodes may decrease as time passes, so in case of storage over 6 months, solderability shall be checked before actual usage.

### ( 2 ) Storage Conditions

( 1 ) Store products in a warehouse in compliance with the following condition:

Temperature: - 10 to +40°C Humidity: 30~70%RH

- (2) Do not subject products to rapid changes in temperature and humidity.
- (3) Do not store the products in chemical atmosphere such as one containing sulfurous acid gas or alkaline gas, that will causes poor solderability and corrosion of inductors.
- (4) Do not store products in bulk packaging to prevent collision among inductors which causes core wire breakage.chipping and
- (5) Store products on pallets to protect from humidity, dust, etc.
- (6) Avoid heat shock, vibration, direct sunlight, etc.