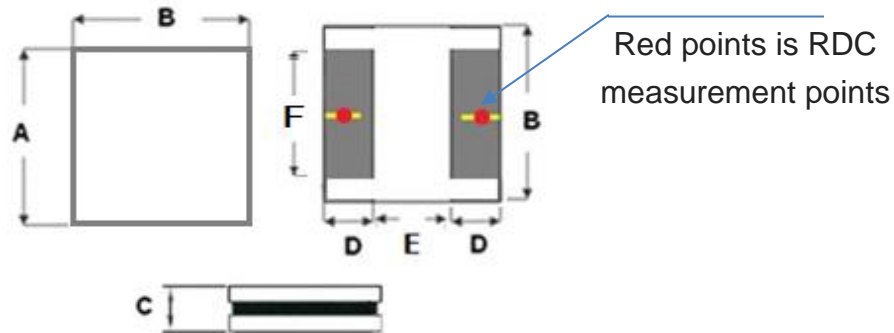


### APPLICATION

Tablet terminals, HDDs, SSDs, DVCs, DSCs, mobile display panels, portable game devices, Telecommunications, Consumer electronics, Compact power supply modules, other.

### 1. Shapes and Dimensions



Unit: mm

Type	A	B	C	D	E	F
LQH4020PHN	4.0±0.2	4.0±0.2	1.8±0.2	1.2 Ref.	1.6 Ref.	3.6 Min

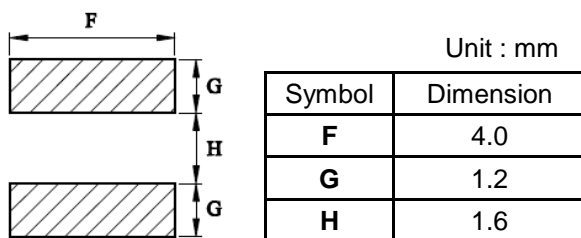
### 2. Ordering / Part Number Information

LQH 4020 PHN - R47 M - N1  
(1) (2) (3) (4) (5) (6)

- (1) Product Group
- (2) Dimension Code
- (3) Type Code
- (4) Inductance Code
- (5) Inductance Tolerance
- (6) Control Code

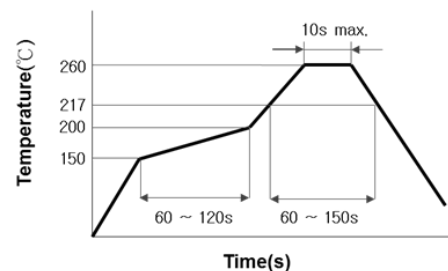
### 3. Recommended Soldering Condition

#### 3-1. Recommended Land Pattern



The Recommended Land pattern is for reference only. Please consult your manufacturing partners to ensure your company's PCB design guidelines are met

#### 3-2. Recommended Soldering Profile



Not suitable for wave soldering.  
If the Reflow temperature is lower than 245°C, This may cause soldering poor problems

## 4. Electrical Characteristics

### 4-1. Electrical Specification

Part Number	Inductance (L) @100kHz, 1V	DC Resistance (RDC) Max	Saturation current ( $I_{SAT}$ ) Typ.	Temperature rise current ( $I_{RMS}$ ) Typ.
LQH4020PHN-R33M-N1	0.33 $\mu$ H $\pm$ 20%	10m $\Omega$	14.0A	7.0A
LQH4020PHN-R47M-N1	0.47 $\mu$ H $\pm$ 20%	17m $\Omega$	12.0A	6.0A
LQH4020PHN-R68M-N1	0.68 $\mu$ H $\pm$ 20%	35m $\Omega$	11.0A	6.5A
LQH4020PHN-1R0M-N1	1.00 $\mu$ H $\pm$ 20%	35m $\Omega$	7.0A	4.7A
LQH4020PHN-1R5M-N1	1.50 $\mu$ H $\pm$ 20%	45m $\Omega$	6.8A	4.5A
LQH4020PHN-2R2M-N1	2.20 $\mu$ H $\pm$ 20%	60m $\Omega$	5.5A	3.5A
LQH4020PHN-3R3M-N1	3.30 $\mu$ H $\pm$ 20%	65m $\Omega$	5.3A	3.3A
LQH4020PHN-4R7M-N1	4.70 $\mu$ H $\pm$ 20%	90m $\Omega$	3.8A	2.7A
LQH4020PHN-5R6M-N1	5.60 $\mu$ H $\pm$ 20%	100m $\Omega$	3.7A	2.5A
LQH4020PHN-6R8M-N1	6.80 $\mu$ H $\pm$ 20%	120m $\Omega$	3.5A	2.2A
LQH4020PHN-100M-N1	10.0 $\mu$ H $\pm$ 20%	160m $\Omega$	2.5A	1.3A

Note1. Saturation Current for Inductance becomes 30% lower than its initial value  
(Test by a short period of time to minimize the self-heating effect of the component.)

Note2. Temperature Rise Current based upon 40°C temperature rise (Reference ambient temperature 25°C)

### 4-2. Operating Temperature Range

-40°C to +125°C (Including self - temperature rise)

### 4-3. Storage Temperature Range

Store this product under the condition of -5°C to 40°C, 20% to 60%RH and use within 6 months

## 5. Packaging Information

Standard Quantity for Packaging: 2,000 pcs/Reel

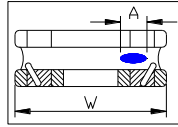
## Note

1. Please make sure that your product is has been evaluated and confirmed against your specifications when our product is mounted to your product.
2. All the items and parameters in this product specification have been prescribed on the premise that our product is used for the purpose, under the condition and in the environment agreed upon between you and us. You are requested not to use our product deviating from such agreement.
3. Please keep the distance between transformer/coil and other components (refer to the standard IEC 950)
4. Void Appearance tolerance Limit.

The unilateral should be no more than two holes.

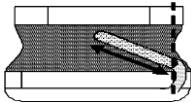
$$A \leq W/2 \text{ GOOD}$$

$$A > W/2 \text{ NG}$$



5. External appearance criterion for exposed wire

Exposed end of the winding wire at the side should be acceptable.



6. Storage and handling Condition

- (1) Products should be storage in the warehouse on the following conditions.

Temperature:  $-5^{\circ}\text{C}$  to  $+40^{\circ}\text{C}$ ; Humidity: 20 to 60% relative humidity.

- (2) Don't store products in corrosive gases such as sulfur. Chlorine gas or acid or it may cause oxidization of electrode, resulting in poor solder-ability.
- (3) Products should be storage in the warehouse without heat shock, vibration, and direct sunlight and so on.
- (4) Handing Condition. Care should be taken when transporting or handling product to avoid excessive vibration or mechanical shock.

Reference