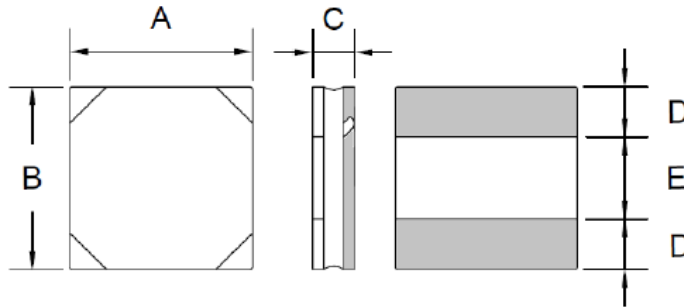


APPLICATION

Smart phones, tablet terminals, HDDs, SSDs, DVCs, DSCs, mobile display panels, portable game devices, compact power supply modules, other.

1. Shapes and Dimensions



Unit: mm

Type	A	B	C	D	E
LQA4012H	4.0±0.2	4.0±0.2	1.2 Max.	1.4 Ref.	1.2 Ref.

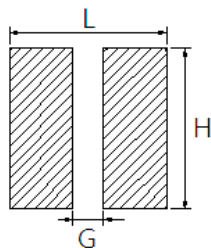
2. Ordering / Part Number Information

LQA 4012 H - 1R0 M - T
(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

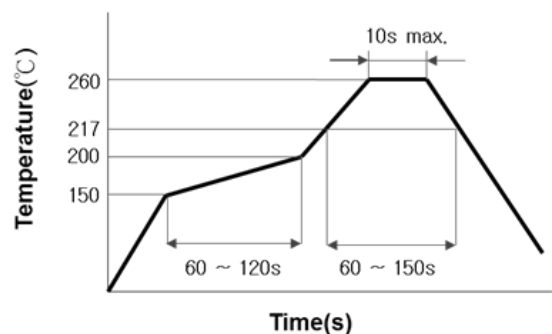


Unit : mm

Symbol	Dimension
L	4.2
G	1.2
H	4.2

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



4. Electrical Characteristics

4-1. Electrical Specification

Part Number	Inductance (L) @100KHz, 1.0V	DC Resistance Max.	Saturation Current (I _{SAT}) Typ. / Max.	Temperature Rise Current (I _{RMS}) Typ. / Max.
LQA4012H-R47M-T	0.47μH±20%	0.033Ω	10.00A / 8.00A	6.00A / 5.00A
LQA4012H-R68M-T	0.68μH±20%	0.043Ω	8.00A / 7.00A	5.00A / 4.00A
LQA4012H-1R0M-T	1.00μH±20%	0.050Ω	6.50A / 5.50A	3.80A / 3.50A
LQA4012H-1R5M-T	1.50μH±20%	0.060Ω	5.60A / 4.70A	3.70A / 3.30A
LQA4012H-2R2M-T	2.20μH±20%	0.078Ω	4.50A / 4.00A	3.40A / 3.00A
LQA4012H-3R3M-T	3.30μH±20%	0.120Ω	4.00A / 3.30A	2.80A / 2.50A
LQA4012H-4R7M-T	4.70μH±20%	0.145Ω	3.00A / 2.70A	2.30A / 2.00A
LQA4012H-6R8M-T	6.80μH±20%	0.180Ω	2.20A / 1.90A	2.10A / 1.80A
LQA4012H-100M-T	10.0μH±20%	0.330Ω	2.00A / 1.70A	1.60A / 1.40A

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 for a 40°C rise above 25°C ambient

Note3. Measurement board data

Material : FR4

Board dimensions : 100 X 50 X 1.6t mm

Pattern dimensions: 45 X 30 mm (Double side board)

Pattern thickness : 50 μm

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 70%RH and use within 6 months.

5. Packaging Information

Standard Quantity for Packaging: 4,500pcs/Reel

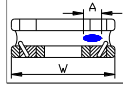
Note

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.

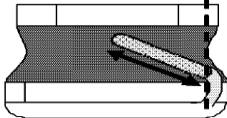
$A \leq W/2$ GOOD

$A > W/2$ 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 used in 6 months from the day of SPORTON outgoing inspection, which can be confirmed.
- (2) Products should be storage in the warehouse on the following conditions.
Temperature : 5°C to +40°C; Humidity: 20% to 60% relative humidity
- (3) 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.
- (4) Products should be storage in the warehouse without heat shock, vibration and direct sunlight and so on.
- (5) Handling Condition. Care should be taken when transporting or handling product to avoid excessive vibration or mechanical shock.

Reference