LQH5040NF-xxxx-T Series Specification

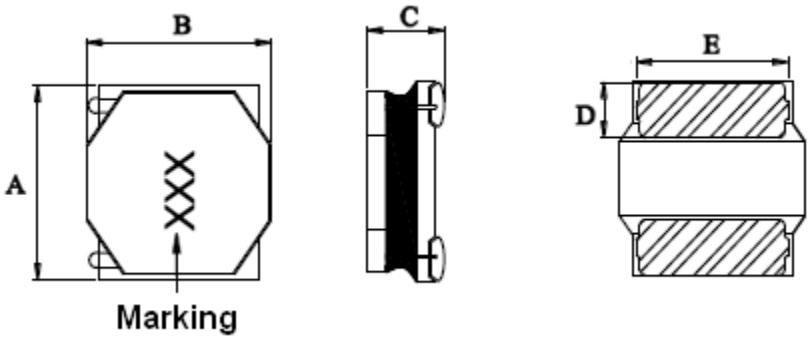
SMD Sealed Power Inductor

耕興股份有限公司
SPORTON INTERNATIONAL INC.

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
LQH5040NF	5.00±0.2	5.00±0.2	3.9±0.3	1.30±0.3	4.2±0.2

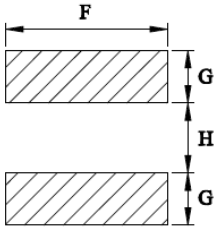
2. Ordering / Part Number Information

LQH	5040	NF	-	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

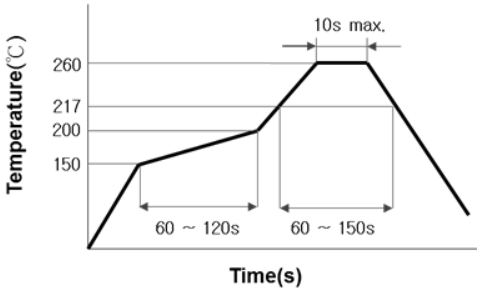


Unit : mm

Symbol	Dimension
F	4.2
G	1.5
H	2.1

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.

4. Electrical Characteristics

4-1. Electrical Specification

Part Number	Inductance (L) @100kHz, 1V	DC Resistance (R_{DC}) ±20%	Saturation Current (I_{SAT}) Typ. / Max.	Temperature Rise Current (I_{RMS}) Typ. / Max.	Marking
LQH5040NF-R47M-T	0.47μH ±20%	6.5mΩ	12.00A / 10.00A	9.00A / 8.00A	R47
LQH5040NF-R60M-T	0.60μH ±20%	8.0mΩ	11.00A / 9.00A	8.00A / 7.00A	R60
LQH5040NF-1R0M-T	1.00μH ±20%	12.0mΩ	7.50A / 6.75A	5.00A / 4.25A	1R0
LQH5040NF-1R5M-T	1.50μH ±20%	15.0mΩ	6.50A / 6.00A	4.50A / 4.00A	1R5
LQH5040NF-1R8M-T	1.80μH ±20%	18.0mΩ	6.10A / 5.60A	4.20A / 3.80A	1R8
LQH5040NF-2R2M-T	2.20μH ±20%	21.0mΩ	5.70A / 5.15A	3.80A / 3.35A	2R2
LQH5040NF-3R3M-T	3.30μH ±20%	24.0mΩ	4.40A / 4.00A	3.50A / 3.15A	3R3
LQH5040NF-4R7M-T	4.70μH ±20%	32.0mΩ	3.90A / 3.50A	3.20A / 2.90A	4R7
LQH5040NF-6R8M-T	6.80μH ±20%	43.0mΩ	3.30A / 3.00A	2.50A / 2.20A	6R8
LQH5040NF-8R2M-T	8.20μH ±20%	50.0mΩ	2.90A / 2.50A	2.35A / 2.00A	8R2
LQH5040NF-100M-T	10.00μH ±20%	56.0mΩ	2.52A / 2.20A	2.20A / 1.90A	100
LQH5040NF-150M-T	15.00μH ±20%	80.0mΩ	2.00A / 1.70A	1.80A / 1.50A	150
LQH5040NF-220M-T	22.00μH ±20%	123.0mΩ	1.62A / 1.30A	1.50A / 1.20A	220
LQH5040NF-270M-T	27.00μH ±20%	160.0mΩ	1.40A / 1.20A	1.30A / 1.10A	270
LQH5040NF-330M-T	33.00μH ±20%	180.0mΩ	1.30A / 1.10A	1.20A / 1.00A	330
LQH5040NF-470M-T	47.00μH ±20%	270.0mΩ	1.10A / 0.90A	1.00A / 0.80A	470
LQH5040NF-680M-T	68.00μH ±20%	400.0mΩ	0.90A / 0.70A	0.80A / 0.65A	680
LQH5040NF-820M-T	82.00μH ±20%	490.0mΩ	0.78A / 0.65A	0.75A / 0.62A	820
LQH5040NF-101M-T	100.00μH ±20%	560.0mΩ	0.75A / 0.60A	0.72A / 0.60A	101
LQH5040NF-221M-T	220.00μH ±20%	1500.0mΩ	0.62A / 0.50A	0.55A / 0.40A	221

Note1. The saturation current is DC current value Inductance decrease down to 30%.
(Test by a short period of time to minimize the self-heating effect of the component.)
Note2. The temperature rise current value is the DC current value having temperature increase up to 40℃.

4-2. Operating Temperature Range

-40℃ to +125℃(Including self - temperature rise)

4-3. Storage Temperature Range

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

5. Packaging Information

Standard Quantity for Packaging: 1,500 pcs/Reel

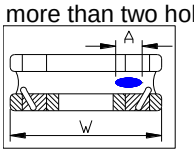
Note

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.

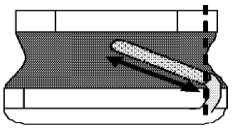
   A≦W/2 GOOD

   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 storage in the warehouse on the following conditions.

Temperature : 5℃ to +40℃; 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.