



PRODUCT IDENTIFICATION

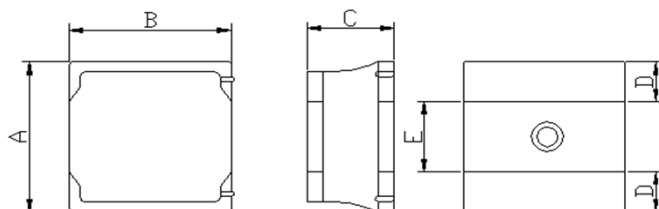
JNR 3012 H - 1R0 N

Type Size Lead Free Inductance Tol. N

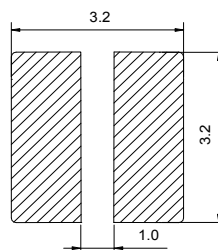
■ FEATURES

1. This specification applies Low Profile Power Inductors.
2. 100% Lead(Pb) & Halogen-Free and RoHS compliant.
3. Operating temperature :-40~+125°C (Including self - temperature rise)

■ DIMENSIONS (mm)



Recommended PC Board Pattern



Part No.	Size (mm)				
	A	B	C	D	E
JNR 3012H	3.0 ± 0.2	3.0 ± 0.2	1.2 Max.	1.0 Ref.	1.0 Ref.

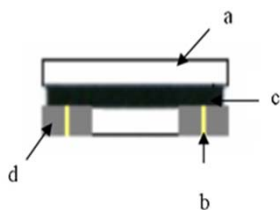
■ SERIES LIST

No.	Part No.	L	Tol.	RDC	Isat		Irms	
		(μ H)		(Ω)	(A)		(A)	
				$\pm 20\%$	typ	max	typ	max
1	JNR 3012H-1R0N	1.0	$\pm 30\%$	0.042	2.50	2.15	2.20	2.00
2	JNR 3012H-1R5N	1.5	$\pm 30\%$	0.056	2.00	1.70	2.00	1.85
3	JNR 3012H-2R2M	2.2	$\pm 20\%$	0.080	1.80	1.50	1.90	1.70
4	JNR 3012H-3R3M	3.3	$\pm 20\%$	0.100	1.50	1.20	1.70	1.55
5	JNR 3012H-4R7M	4.7	$\pm 20\%$	0.130	1.30	1.05	1.50	1.30
6	JNR 3012H-6R8M	6.8	$\pm 20\%$	0.180	1.20	0.90	1.20	1.05
7	JNR 3012H-100M	10	$\pm 20\%$	0.245	0.90	0.76	1.00	0.89
8	JNR 3012H-150M	15	$\pm 20\%$	0.386	0.80	0.62	0.90	0.74
9	JNR 3012H-220M	22	$\pm 20\%$	0.580	0.60	0.49	0.70	0.61

Note:

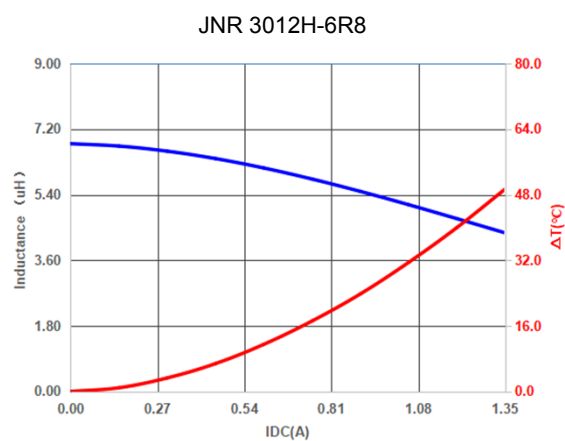
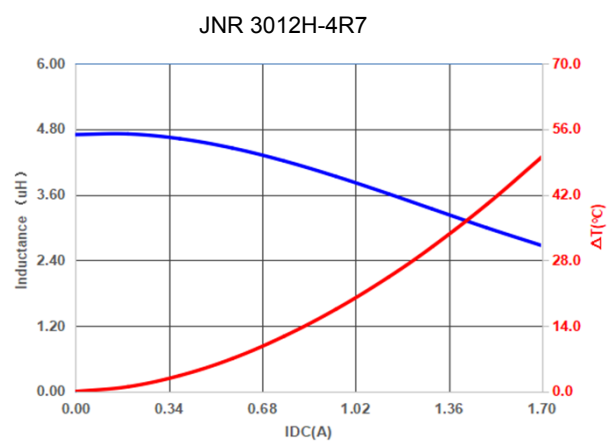
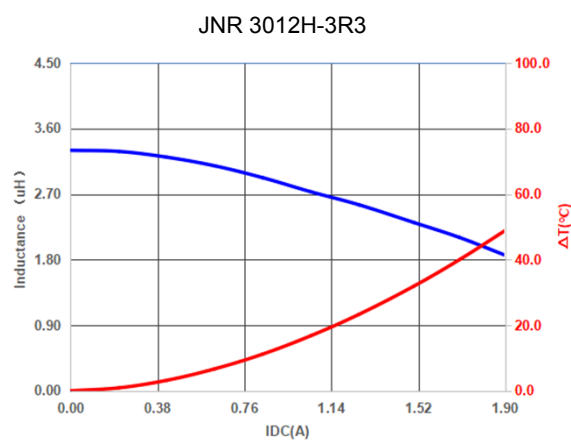
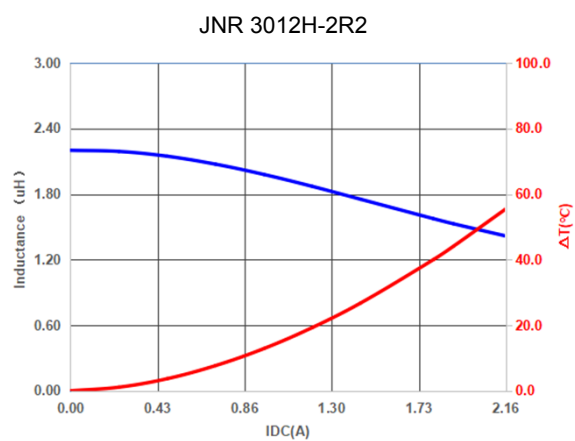
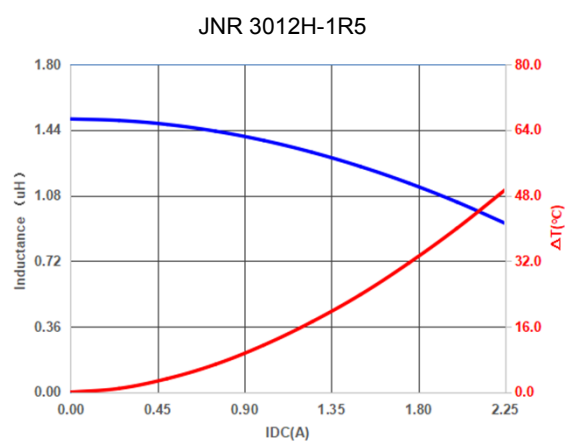
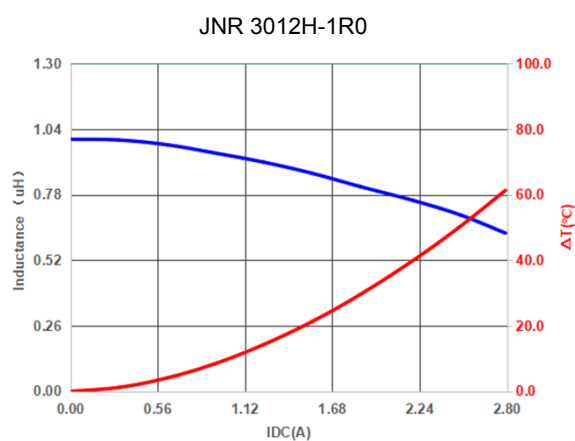
1. Test Frequency : 1MHz /0.1V
2. All test data referenced to 25°C ambient
3. Isat : Saturation Current (Isat) will cause L0 to drop approximately 30%.
4. Irms : Heat Rated Current (Irms) will cause the coil temperature rise approximately ΔT of 40°C
5. Rated DC current : The lower value of Irms and Isat.

Materials

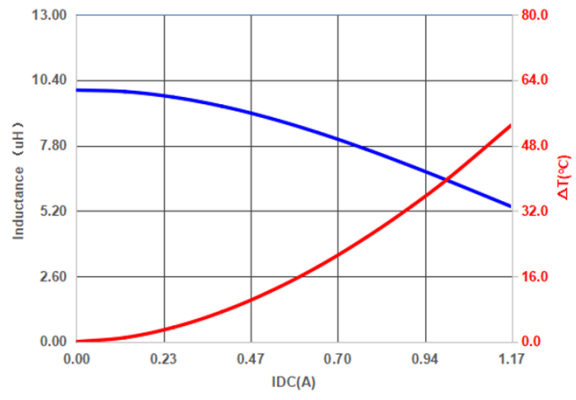


No.	Description	Specification
a	Core	Ferrite Core
b	Wire	Enameled Copper Wire
c	Glue	Epoxy with magnetic powder
d	Terminal	Ag/Ni/Sn

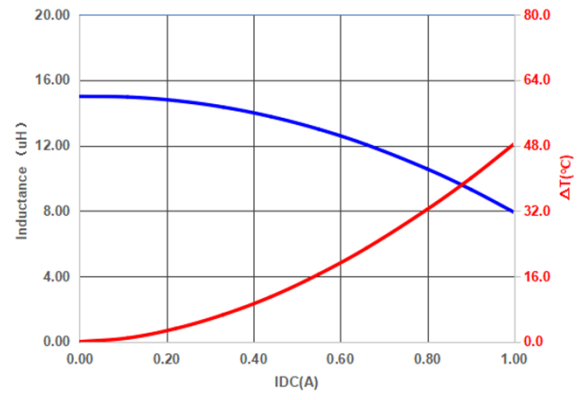
TYPICAL PERFORMANCE CURVES



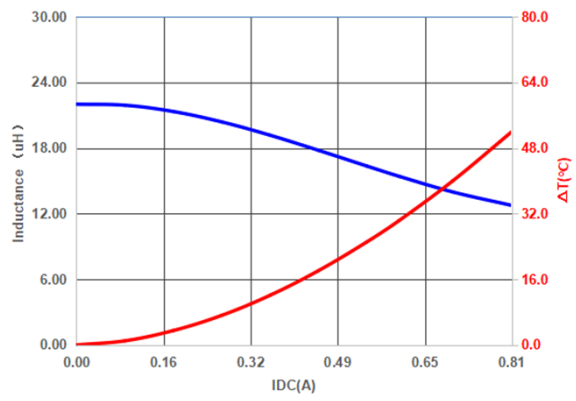
JNR 3012H-100



JNR 3012H-150



JNR 3012H-220



■ Appearance criterion

1・Core chipping

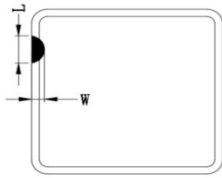
The appearance standard of the chipping size on top side, and bottom side ferrite core is listed below.

Chip off is generated during molding and manufacturing process.

Chip off acceptance limits subjected to the product size.

Our current Defect limit is based on the IPC-A-610.

Some chip off does not impact the product function, see the IPC standard 1 & 2.



L	≤50 % of the length
W	≤25 % of the width

Defects usually occur at the corners and edges of the product,

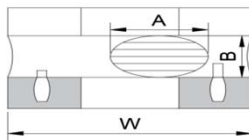
There will be a slight defect black and rough,

but not exposed copper, and does not affect the product

performance and reliability.

2・Void appearance tolerance Limit

Size of voids occurring to coating resin is specified below.



Exposed wire tolerance limit of coating resin part on product side.

Size of exposed wire occurring to coating resin is specified below.

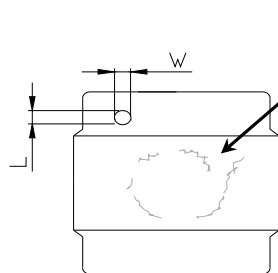
1. Width direction (dimension a) : Acceptable when $a \leq w/2$.
2. Length direction (dimension b) : Dimension b is not specified.
3. The total area of exposed wire occurring to each sides is not greater than 50% of coating resin area, and is acceptable.

3・External appearance criterion for exposed wire

Exposed winding wire at the secondary side is regarded as qualified product.



4、Electrode appearance criterion for exposed wire



Visual check on core surface with no crack means pass.

Only top side of wire is exposed.
(regardless of whole top side of wire exposed)

Conforming

Wire is soldered insufficiently and less than half of outer diameter is covered with solder.

Less than 1/2 of joint side length.
(More than 1/2 is selected as defect)

L & W
≤20% of the area on one single pad

Foreign materials on the product body is inevitable and accepted.

Electrodes with foreign body (dirt) appearance standards

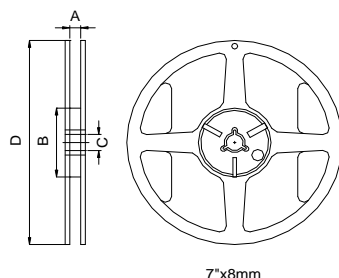
Foreign materials (dirt) will not affect the coplanarity of PAD,

below the example of foreign materials (dirt) quantity ≤2PCS on single PAD.

Dimensions range as shown in the table.

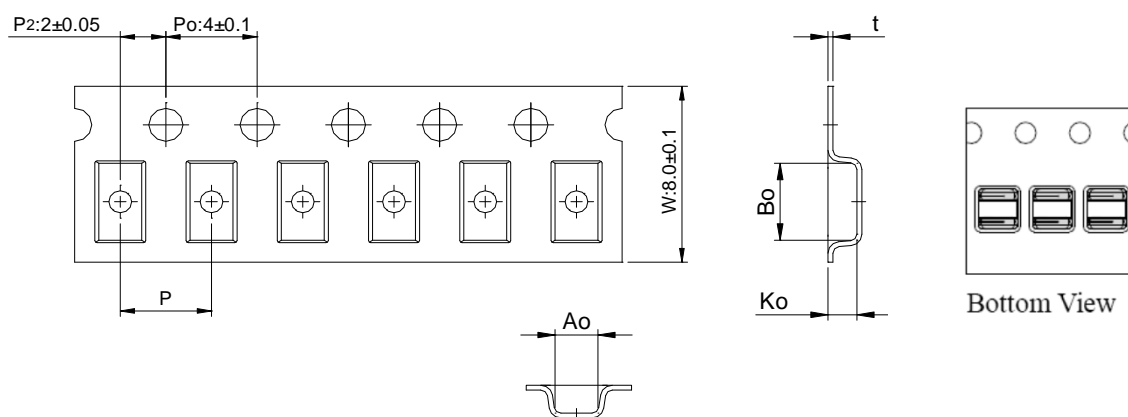
Packaging Information

• Reel Dimension



Type	A(mm)	B(mm)	C(mm)	D(mm)
7"x8mm	8.4±1.0	50 min	13±0.8	178±2

• Tape Dimension



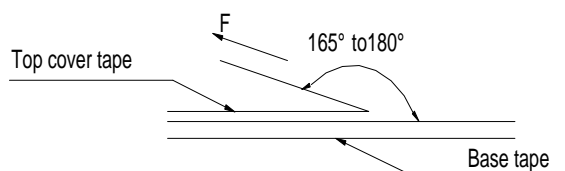
Ao(mm)	Bo(mm)	Ko(mm)	P(mm)	t(mm)
3.2±0.05	3.2±0.05	1.40±0.2	4.0±0.05	0.23±0.05

• Packaging Quantity

Size	Reel
JNR 3012H	2000

• Tearing Off Force

The force for tearing off cover tape is 10 to 100 grams in the arrow direction under the following conditions (referenced ANSI/EIA-481-D-2008 of 4.11 standard).



Tearing Speed mm	Room Temp. (°C)	Room Humidity (%)	Room atm (hPa)
300±10%	5~35	45~85	860~1060

Application Notice

- Storage Conditions(component level)

To maintain the solderability of terminal electrodes:

1. Products meet IPC/JEDEC J-STD-020E standard-MSL, level 1.
2. Temperature and humidity conditions: Less than 40°C and 60% RH.
3. Recommended products should be used within 12 months form the time of delivery.
4. The packaging material should be kept where no chlorine or sulfur exists in the air.

- Transportation

1. Products should be handled with care to avoid damage or contamination from perspiration and skin oils.
2. The use of tweezers or vacuum pick up is strongly recommended for individual components.
3. Bulk handling should ensure that abrasion and mechanical shock are minimized.