Power Choke

JSHC0630 Series

Automotive-Grade A0

JinLai's proven design and process support high reliability, high thermal characteristics, and high efficiency power chokes for automotive application.

DATA SHEET

Place of origin: Chongqing

变 更 履 历
Revision History

版 本 号 Revision	变 更 日 期 Changed Date	申 请 者 Request By	变 更 内 容 Change Content
A0	2020-7-15	田宁丽	承认发行

目 录

1.Features

Products are lead-free, in line with RoHS directive, Halogen Free and REACH Compliance

High performance (Isat) realized by metal dust core

Lowest DCR impedance of the same size

Capable of corresponding high frequency

The integrated structure avoids noise

AEC-Q200 qualified

2.Application

Automotive applications

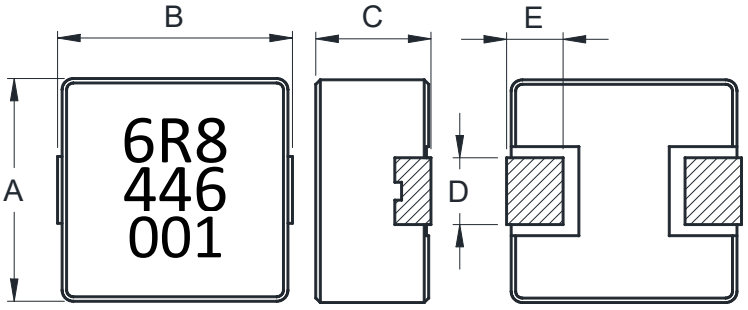
3.Part No. definition

JSHC	0630	H	-	XXX	M	-	K	-	A	5
①	②	③		④	⑤		⑥		⑦	⑧

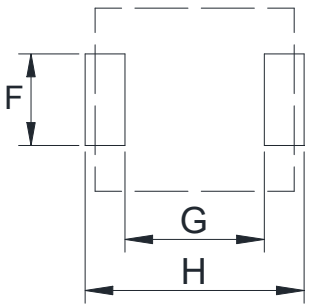
①	产品代码 Product Code	：	JSHC Series	⑤	公差范围 Tolerance	：	M = ±20%
②	产品尺寸 Dimension	：	6.8×7.4×3.0mm	⑥	粉料 Powder lot	：	Alloy powders
③	生产模具 Production molds	：	Regular size	⑦	车载 Vehicle	：	Automotive electronics products
④	电 感 值 Inductance	：	如 6R8=6.8μH	⑧	工作温度 Operating temperature	：	-55℃ ~ +165℃

※ 工作温度范围：-55℃ ~ +165℃ (包含产品发热)
Operating temperature range : -55℃ ～ +165℃ (Including self-temperature rise)

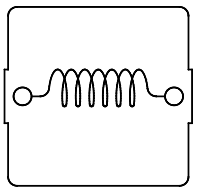
4.Appearance and dimensions



Reference PCB pattern



Schematic



Product printing: First line: Actual inductance value, such as inductance value of 6.8 μ H, with printing of 6R8. Second line: Actual production cycle (e.g. 446,4: represents 2024, 46: represents cycle). Third line: Three digit serial number updated every week starting from 001, with one work order number corresponding to one serial number per week. Different work order printing flow lines for the same customer in the same cycle are stacked.

Dimensions in mm

A	B	C	D	E	F	G	H
6.8Max	7.4Max	3.0Max	3.0±0.3	1.6±0.3	3.5Ref	3.7Ref	8.0Ref

5.Electrical Characteristics

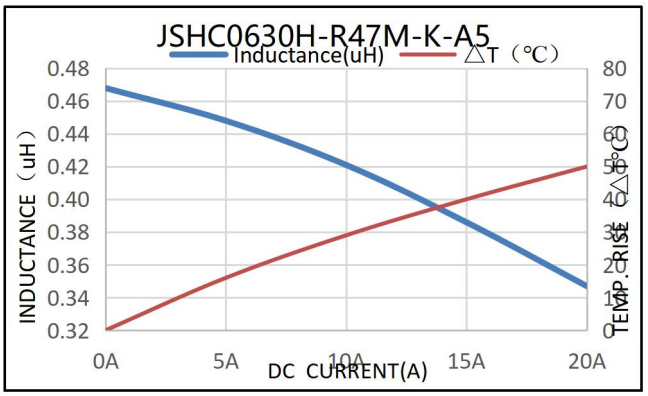
Part Number	Inductance	Tolerance	RDC(mΩ)		Isat(A)		Irms(A)	
	(uH)	(±%)	Typical	Max	Typical	Max	Typical	Max
JSHC0630H-R47M-K-A5	0.47	20	4.5	5	20	18	15	13.5
JSHC0630H-R68M-K-A5	0.68	20	6	6.5	18	16.2	12	10.8
JSHC0630H-1R0M-K-A5	1.0	20	9.5	10.5	16	14.4	10	9
JSHC0630H-1R5M-K-A5	1.5	20	15	17	14	12.6	8.5	7.65
JSHC0630H-2R2M-K-A5	2.2	20	16	19	10	9	7	6.3
JSHC0630H-3R3M-K-A5	3.3	20	27.5	30	9	8.1	6	5.4
JSHC0630H-4R7M-K-A5	4.7	20	36	40	8.5	7.65	5	4.5
JSHC0630H-5R6M-K-A5	5.6	20	43	48	7	6.3	4.5	4.05
JSHC0630H-6R8M-K-A5	6.8	20	50	54	6	5.4	4.5	4.05
JSHC0630H-100M-K-A5	10	20	66	75	5	4.5	3.6	3.24
JSHC0630H-150M-K-A5	15	20	125	140	4	3.6	3	2.7
JSHC0630H-220M-K-A5	22	20	150	170	3	2.7	2.5	2.25
JSHC0630H-330M-K-A5	33	20	280	250	2.5	2.25	2.2	2
JSHC0630H-470M-K-A5	47	20	360	400	2	1.8	1.5	1.35

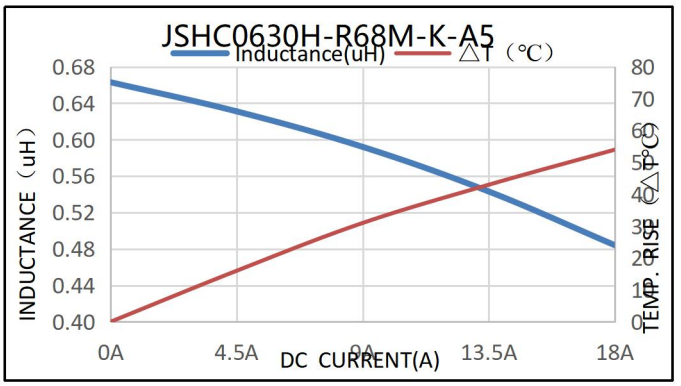
Note: When ordering, please specify tolerance code. Tolerance: M=±20%

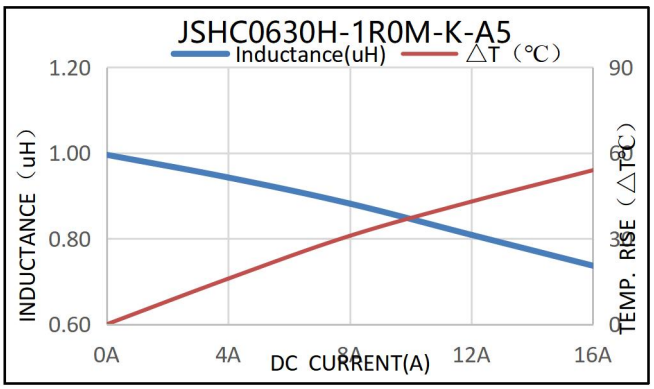
- All data is tested on 25℃ ambient temperature.
- Inductance is tested at 100kHz, 1.0V.
- Heat rating current: The value of DC current when product temperature rise is ΔT40℃ (Ta=25℃).
- Saturation current: The value of DC current when the inductance decreases approximately 30% of its.

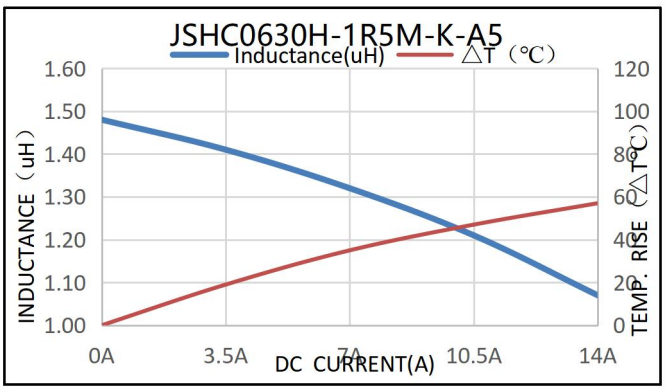
Special remind: Circuit design, component placement, frequency, cooling system and etc.
all will affect the product temperature. Please verify the actual product temperature in the final application.

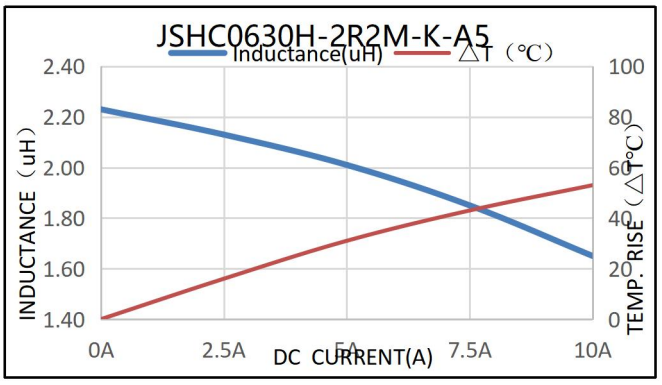
6.Heat rating current VS saturation current curv

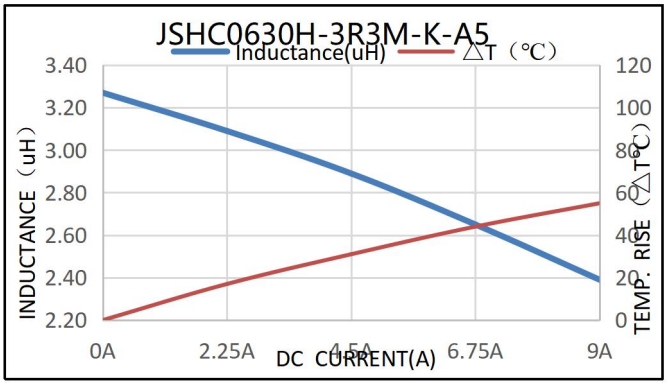


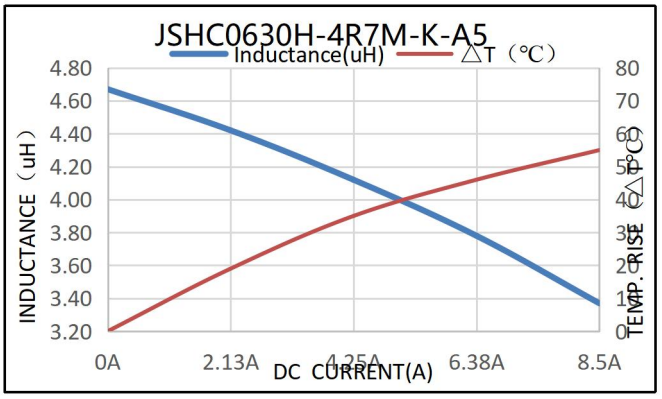


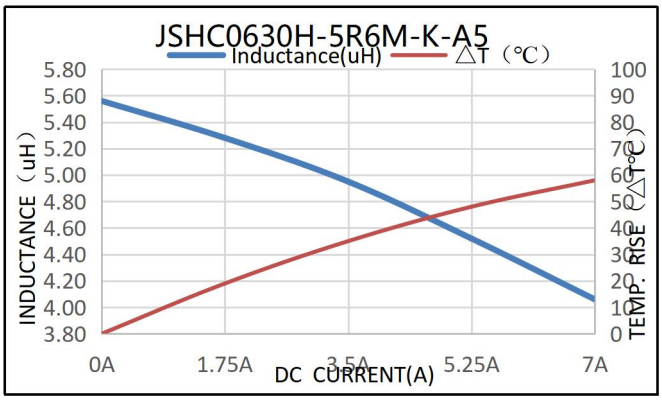


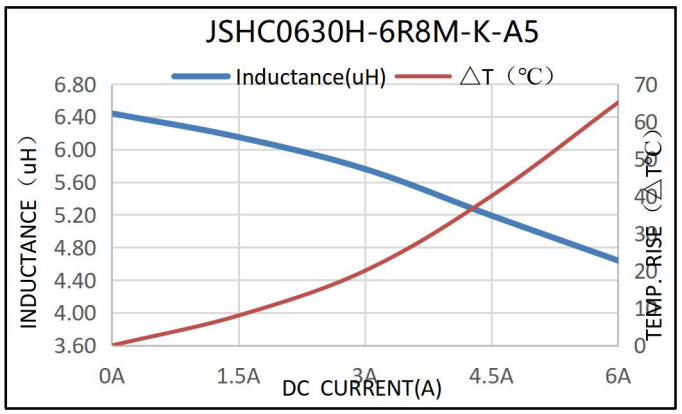


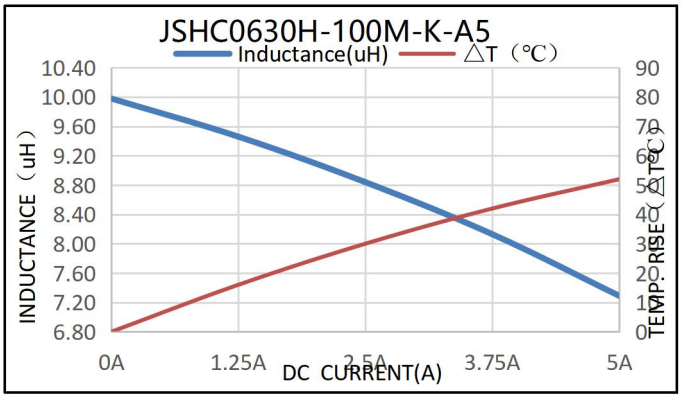


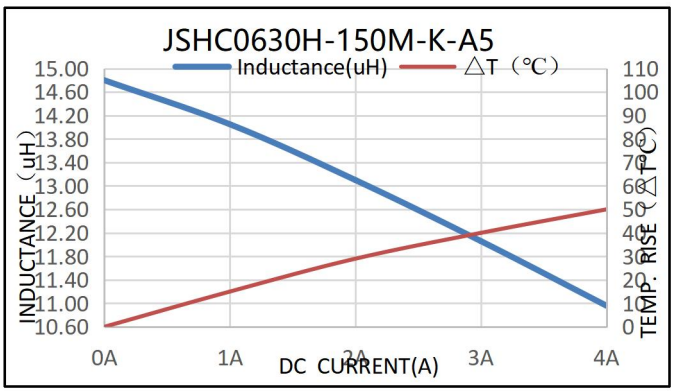


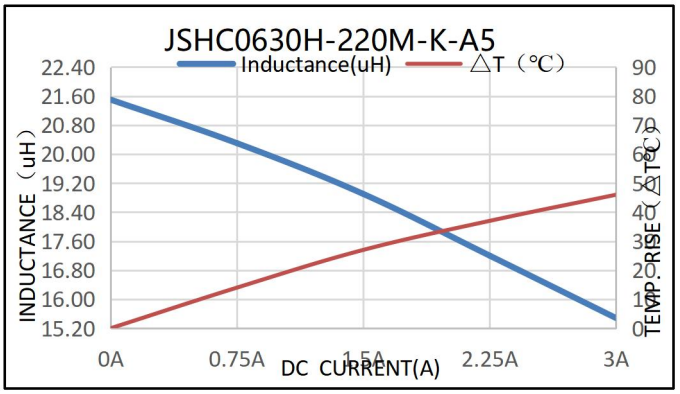


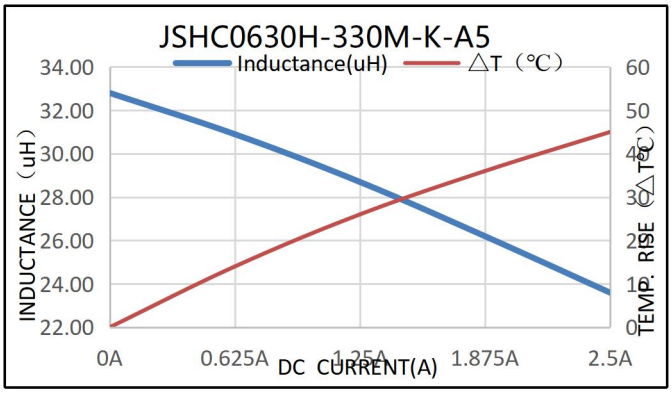


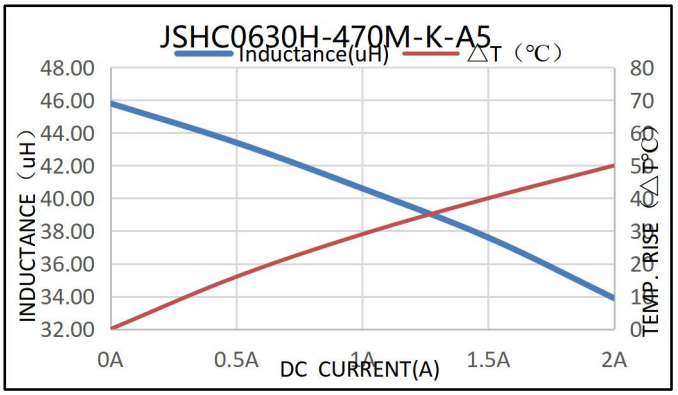

JSHC0630H-6R8M-K-A5
Inductance(uH)
△T（℃）
INDUCTANCE（uH）
TEMP. RISE（△T℃）
DC CURRENT(A)
0A
1.5A
3A
4.5A
6A


JSHC0630H-100M-K-A5
Inductance(uH)
△T（℃）
INDUCTANCE（uH）
TEMP. RISE（△T℃）
DC CURRENT(A)
0A
1.25A
2.5A
3.75A
5A


JSHC0630H-150M-K-A5
Inductance(uH)
△T（℃）
INDUCTANCE（uH）
TEMP. RISE（△T℃）
DC CURRENT(A)
0A
1A
2A
3A
4A


JSHC0630H-220M-K-A5
Inductance(uH)
△T（℃）
INDUCTANCE（uH）
TEMP. RISE（△T℃）
DC CURRENT(A)
0A
0.75A
1.5A
2.25A
3A

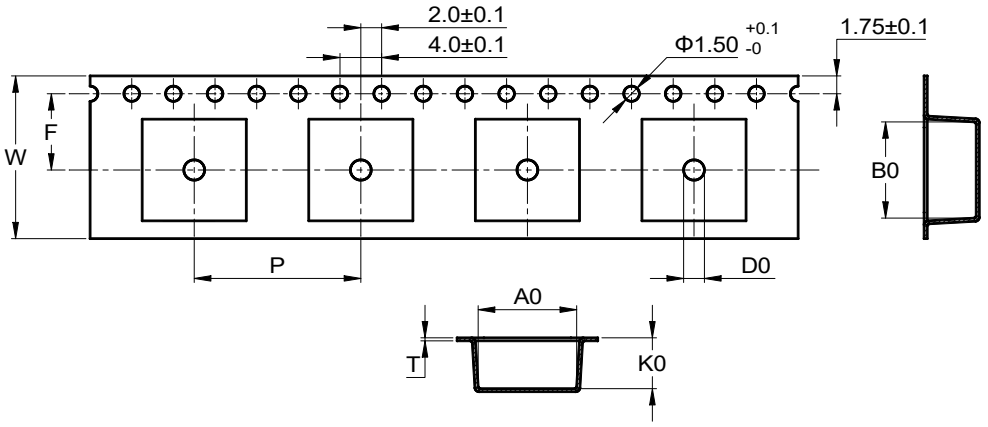

JSHC0630H-330M-K-A5
Inductance(uH)
△T（℃）
INDUCTANCE（uH）
TEMP. RISE（△T℃）
DC CURRENT(A)
0A
0.625A
1.25A
1.875A
2.5A


JSHC0630H-470M-K-A5
Inductance(uH)
△T（℃）
INDUCTANCE（uH）
TEMP. RISE（△T℃）
DC CURRENT(A)
0A
0.5A
1A
1.5A
2A

7.Packaging Specifications

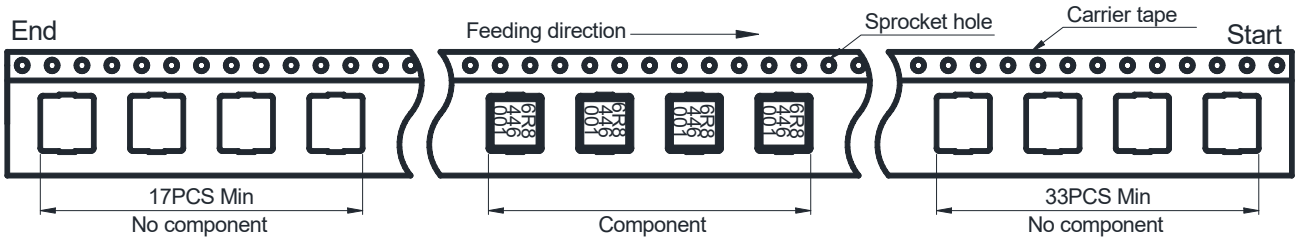
Carrier tape dimensions

A0	7.40±0.2
B0	7.95±0.2
K0	3.30±0.20
W	16.0±0.3
P	12.0±0.2
F	7.50±0.1
T	0.35±0.05
D0	1.5±0.10



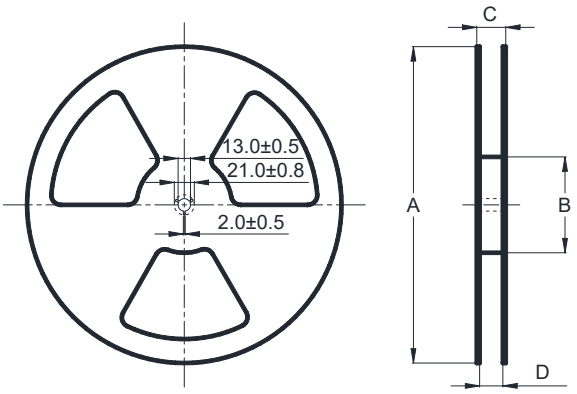
※ 包装参照国际标准 IEC 60286-3。
Packaging is referred to the international standard IEC 60286-3.

Packaging direction

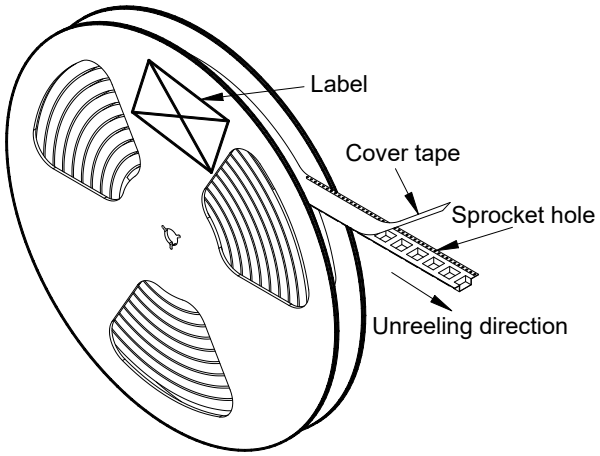


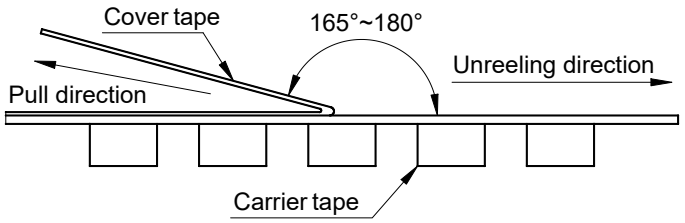
Reel dimensions

A	330 ± 2.0
B	100 Min
C	28.0 Max
D	24.5 Min



Cover tape peel-off condition



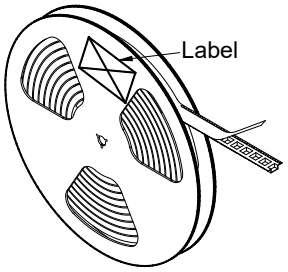


※ 盖带剥离力度为 0.1～1.3N。
Cover tape peel-off force will be 0.1 to 1.3N.

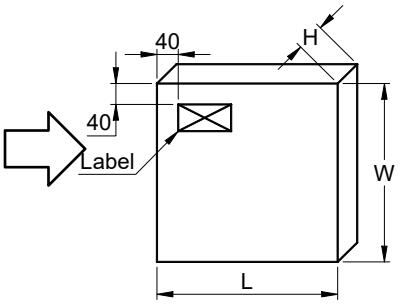
※ 参考剥离速度 300±10mm/分钟。
Reference peel-off speed 300±10mm/min.

Carton dimensions and packaging quantity

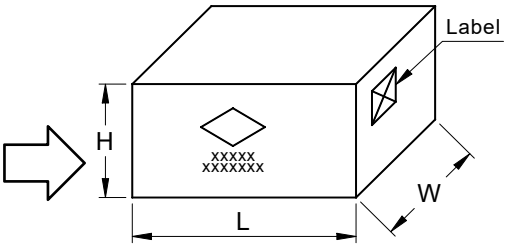
卷 盘
Reel



内 箱
Inner carton



外 箱
Out carton



■ 内包装箱(L×W×H)：340×340×52mm
Inner Carton

■ 外包装箱(L×W×H)：354×354×176mm
Out Carton

SHC0630	每盘 包装数量 Per Reel Quatity	内箱 包装数量 Inner Carton Quatity	外箱 包装数量 Out Carton Quatity
	1,000 pcs	(1,000×2) = 2,000 pcs	(2,000×3) = 6,000 pcs

labeling requirement

图一

卷轴/啤盒/外箱标签（图一）

一、标签大小：70mm*50mm（横*竖）；

二、标签内容（图一）

1、MPN:实际金籁料号；

2、QTY：实际包装数量；

3、Lot No：生产批次，（如2446001，一个工单为一个批次，卷盘啤盒外箱同为一个批次，同周期不同工单批次叠加加流，每周从001开始）；

4、Supplier:JINLAI；

5、Customer:_____；

6、CPN:_____；

7. 条形码显示对应内容；

8. 二维码内容：MPN@QTY@Lot No

注：印字中的周期和流水需与出货标签Lot No中的周期和流水相对应，卷盘、啤盒、外箱共用以上标签模版，若遇多个批次产品合箱，啤盒、外箱都要对应显示Lot No，啤盒、外箱可同时贴多张标签体现。

三、标签粘贴位置

1. 卷轴标签粘贴位置如图所示（图二）

2. 啤盒的标签粘贴位置如（图三）

3. 外箱标签粘贴位置如图所示（图四）

图二

图三

图四