

承 认 书

SPECIFICATION FOR APPROVAL

客 户 Customer:

产品名称 Project:

功率电感

规格型号 Part No:

HY0420-XXXM

贵公司承认印 Approval signatures

料 号/Part No.	签 章/Signatures

日期 Date:

拟制/Drawn	王宗华	
审核/Check	陈淼淼	
批准/Approved	张春华	

● 特性Features.

- 1.小体积(最大尺寸4.75*4.3*2.0mm)，大电流(范围可到22A)，在高频和高温环境下保持优良的温升电流及饱和电流特性。
Small volume (maximum size 4.75*4.3*2.0 mm) and large current (range up to 22A), maintaining excellent temperature-rise current and saturation current characteristics at high frequency and high temperature

2.电感范围从0.10uH到10.00uH.
The inductance ranges from 0.10uH to 10.00uH.

3.磁屏蔽结构，抗电磁干扰(EMI)性能强。
Magnetic shielding structure, anti-electromagnetic interference (EMI) performance is strong.

4.低损耗合金粉末压铸，低阻抗，寄生电容小。
Low loss alloy powder die casting, low impedance, low parasitic capacitance.

5.高效率，应用频率宽，适用范围广。
High efficiency, wide application frequency and wide application range.



● 应用Applications.

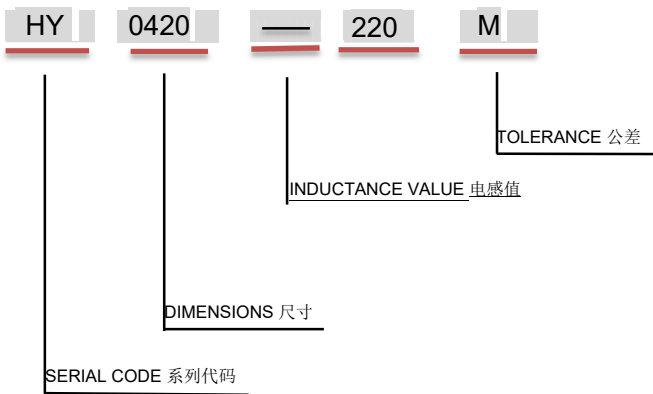
- 1.低配置、大电流电源。
Low profile ,high current power supplies.

2.DC/DC转换器 .
DC/DC converters.

3.电池供电设备.
Battery powered devices.

4.PDA/笔记本电脑/台式机/服务器应用程序 .
PDA/notebook/desktop/server applications.

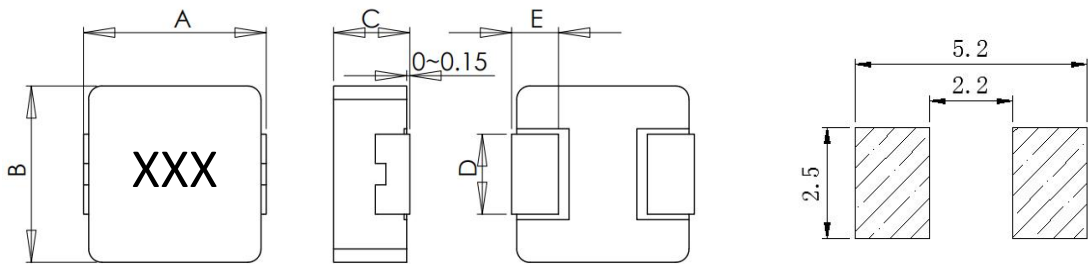
● 编码原则Part Numbering .



Code 代码	Tolerance 公差
J	±5%
K	±10%
L	±15%
M	±20%
P	±25%
N	±30%

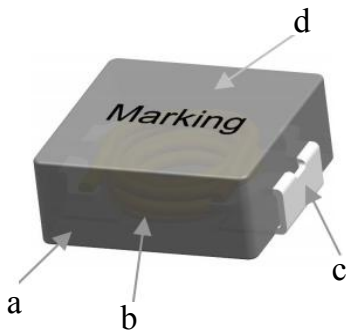
- 电感值Inductance Value
(1R0:1.0uH; 100: 10uH; 101:100uH)

● 产品尺寸及推荐焊盘尺寸Dimensions and Recommend PC Board Pattern (unit: mm) .



ITEM	A	B	C	D	E
SPEC	4.4±0.35	4.1±0.2	2.0 MAX	2.0±0.3	1.0±0.3

● 材料清单Material List



No.	项目ITEM	材料Materials
a	磁芯Core	金属合金Metal alloy
b	线Wire	漆包线Polyester Wire or equivalen
c	端子Terminal	铜+镍+锡Copper+Nickel+Tin
d	油墨Ink	KGK-JET LTH20-Black or equivalen

● 储存条件/注意的事项Storage conditions/Matters need attention

(1). 贮存温度、湿度条件:

Storage temperature and humidity conditions :

a .产品包装与载体:温度- 10℃~ + 40℃,相对湿度低于60%

Product packing with Carrier tape: -10℃~+40℃ and less than 60% RH

b.单独的产品:温度-20℃~ + 60℃,相对湿度低于60%

Product alone: -20℃~+60℃ and less than 60% RH

(2). 产品在6个月内使用(注意:产品一经拆开包装,须尽快使用)

Products should be used within 6 months.(Note that the product should be used as soon as possible once it is folded)

(3). 包装材料应保存在空气中不存在氯或硫的地方

The packaging material should be kept where no chlorine or sulfur exists in the air

(4). 不要用手指触摸电极(焊接端子),因为这可能导致焊接能力的下降

Do not touch the electrodes (soldering terminals) with fingers as this may lead to deterioration of solder ability.

(5). 个别零件强烈建议使用镊子或真空取料机散装搬运应确保尽量减少磨损和机械冲击

The use of tweezers or vacuum pick-ups is strongly recommended for individual components.Bulk handling should ensure that abrasion and mechanical shock are minimized.

● 电气特性 Electrical Characteristics .

Part number	Inductance (uH)	Rdc (mΩ)		Heat Rating Current DC Amps. Idc (A)	Saturation Current DC Amps. Isat (A)
	100KHz/0.25V	Typical	Max	Max	Max
HY0420-R10M	0.10±20%	3.50	4.00	12.00	22.00
HY0420-R22M	0.22±20%	6.00	6.60	9.00	12.50
HY0420-R47M	0.47±20%	12.50	14.00	7.00	14.00
HY0420-R56M	0.56±20%	14.00	16.00	6.50	10.00
HY0420-R68M	0.68±20%	16.00	18.00	6.00	9.00
HY0420-1R0M	1.00±20%	24.00	27.00	4.50	7.00
HY0420-1R2M	1.20±20%	24.00	27.00	4.50	7.00
HY0420-1R5M	1.50±20%	38.00	46.00	4.00	6.00
HY0420-2R2M	2.20±20%	52.00	58.00	3.00	5.00
HY0420-3R3M	3.30±20%	74.00	87.00	2.50	4.00
HY0420-4R7M	4.70±20%	92.00	105.0	2.20	3.00
HY0420-6R8M	6.80±20%	162.0	178.0	2.00	2.50
HY0420-8R2M	8.20±20%	188.0	207.0	1.80	2.00
HY0420-100M	10.00±20%	256.0	282.0	1.60	1.80
HY0420-150M	15.00±20%	188.0	310.0	2.00	1.60
HY0420-220M	22.00±20%	256.0	380.0	1.60	1.20

(1) 所有的测试数据在25℃的环境温度下进行.

All test data is referenced to 25℃ ambient .

(2) 在通过热额定电流值(Idc)时，线圈会产生温升 40℃左右的变化.

When applying the heat rating current DC (Idc) to coil, it will cause an approximate ΔT of 40℃.

(3) 在通过额定饱和电流Isat时，线圈电感值会比初始电感值下降30%左右.

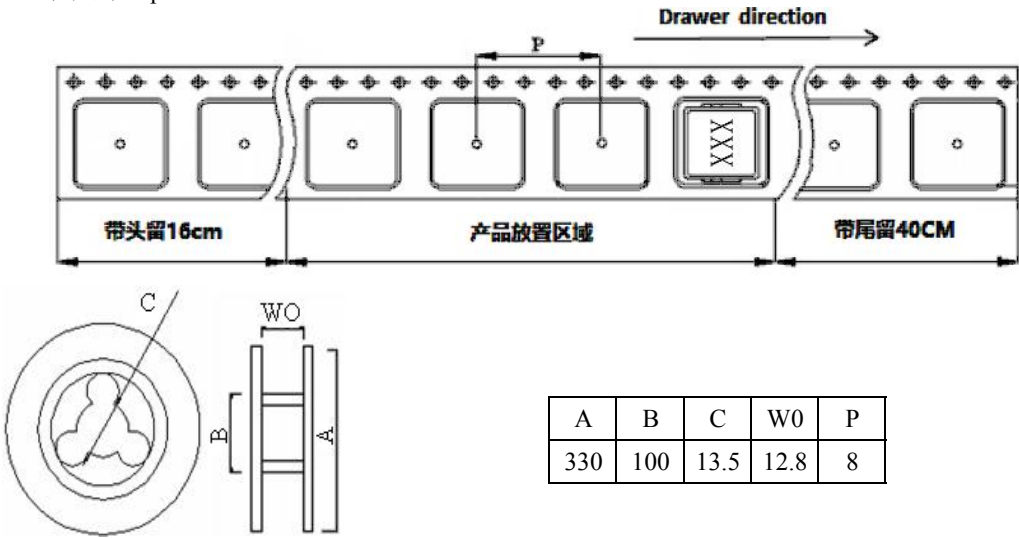
When applying the saturation current DC(Isat) to coil, it will cause the initial inductance value to drop 30%Typical.

(4) 操作温度范围-55℃到+155℃.

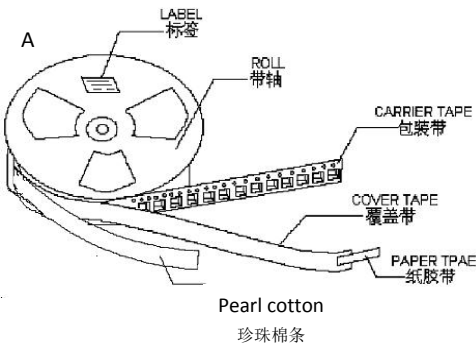
Operating Temperature Range-55℃ to +155℃

● 包装Packaging Information

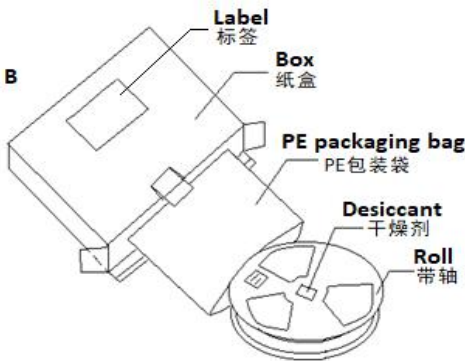
(1)载带及卷轴尺寸Tape&Reel Dimension



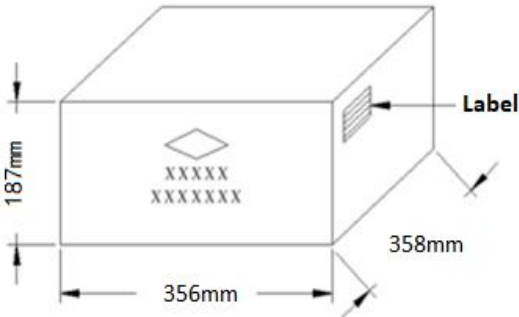
(2)包装方式及数量The packing way and quantity



每卷包装数量:3000 pcs/Reel



每内盒数量: 12000 pcs/Inner box

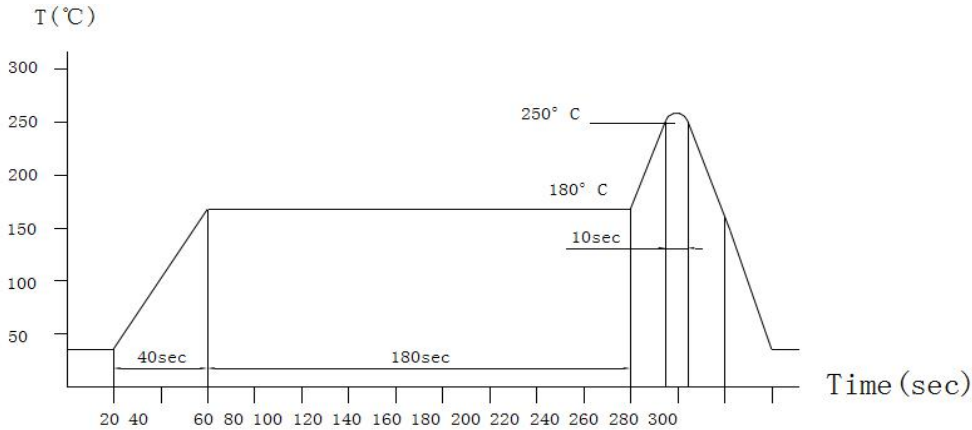


每箱包装数量: 24000 pcs/Carton

产 品 标 签			
客户名称 Customer			
订单号码 P/O			
客户料号 CUST. P/N			
数量 QTY		厂商批号 LOT NO	
检验员 QC		出货日期 DATE	

● 焊接和安装 Soldering and Mounting

(1). 推荐回流焊条件（无铅） Recommended Reflow Conditions（Lead-free）

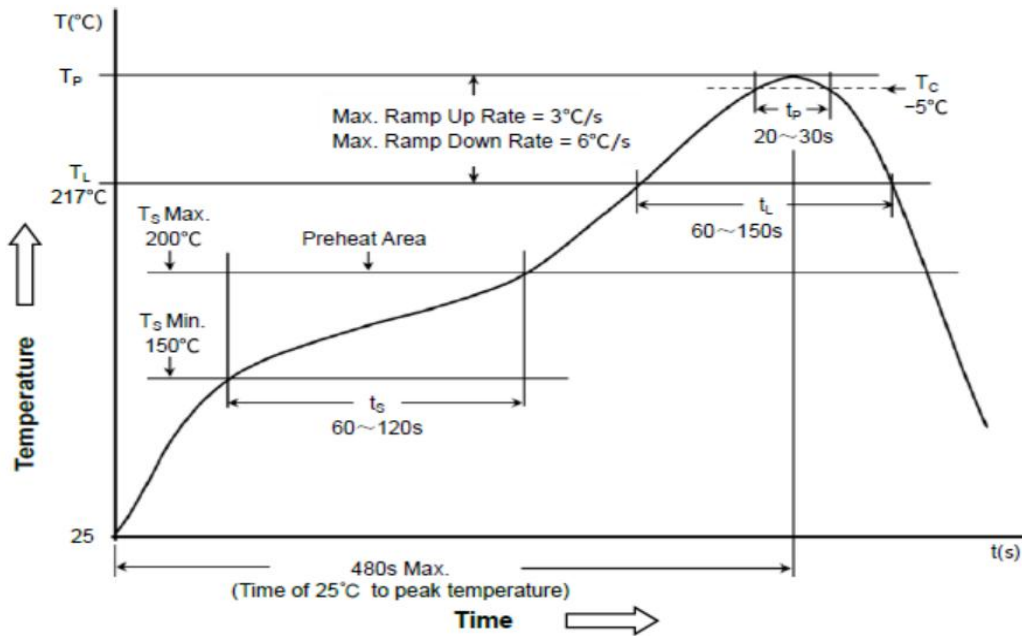


上面推荐的回流焊试验条件是根据本公司的回流焊设备

The above recommended reflow test conditions are based on the company's reflow welding equipment

(2). 回流焊耐热性 Reflow Soldering Heat Endurance

Reflow profile for SMT components
SMT 回流焊温度曲线



Classification of peak package body temperature (T_P)
封装体峰值温度(T_P)分类

	Package Thickness 封装厚度	Package Volume 封装体积		
		$<350 \text{ mm}^3$	$350 \sim 2000 \text{ mm}^3$	$>2000 \text{ mm}^3$
PB-Free Assembly 无铅装配	$<1.6\text{mm}$	260°C	260°C	260°C
	$1.6 \sim 2.5\text{mm}$	260°C	250°C	245°C
	$\geq 2.5\text{mm}$	250°C	245°C	245°C

- 在该条件下进行回流焊，常温常湿条件下放置2个小时后，无机械，电气特性缺陷发生
Reflow soldering is carried out under this condition and placed under normal temperature and humidity conditions
- 在常温常湿条件下，间隔1个小时可进行两次回流焊
Twice reflow test is acceptable with the test interval remaining 1 hour under the normal conditions.
- 回流焊曲线图会因设备的不同有所差异
The reflow test profile may vary with the testing instruments.