

1 Introduction

- ROHS, Halogen Free and REACH compliance
- High rated current
- 125 °C maximum total temperature operation
- 7.3×6.8×3.0mm maximum surface mount package
- Low core loss
- Ultra low buzz noise due to molding construction

2 Applications

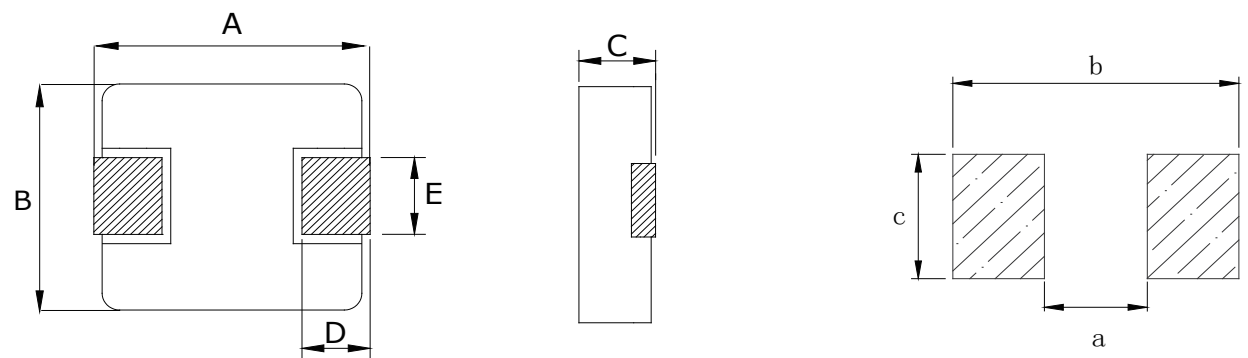
- Laptops and PCS
- Switch and servers
- Base stations
- DC/DC converters
- Battery powered devices
- SSD modules

3 Product Identification

WH YT 0630 --6R8 M
 ① ② ③ ④ ⑤

① WH----- Company code
 ② YT ----- Series name
 ③ 0630 ----- Dimension
 ④ 6R8 ----- Inductance Value (6R8 = 6.8μH)
 ⑤ M -----Inductance Tolerance (M= ± 20%)

4 Dimensions (unit:mm)



A	B	C	D	E	A Typ	B Typ	C Typ
7.0±0.3	6.6±0.2	2.8±0.2	1.6±0.3	3.0±0.3	3.7	8.4	3.5

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 Su Zhou Voohu Electronic Tech.Co.Ltd

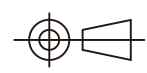
TITLE: 一体成型电感
 PART NO.: YT0630 Series

SIZE A4
 UNITS MM[INCH]
 SACLE 1:1
 REV A0
 SHEET 1/8

GENERAL TOLERANCES UNLESS SPECIFIED	
x±0.35	x°±3.0°
.x±0.30	.x°±2.0°
.xx±0.25	.xx°±1.5°
.xxx±0.10	.xxx°±1.0°

APPROVED BY: Geoffrey.Song
 CHECKED BY: Elvis.Song
 DESIGND BY: Sunny.Xu

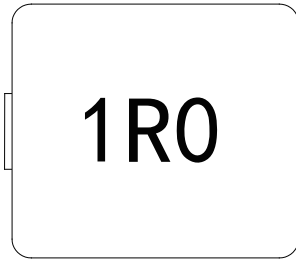
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5 Marking

The inductor is marked with a 3-digit code

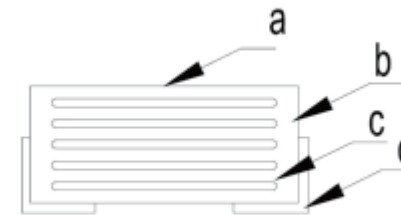
Nominal Inductance	
Example	Nominal Value
1R0	1.0 μ H
100	10 μ H
101	100 μ H



Note: Using Ink for marking

6 Structure and Components

Symbol	Components	Material
a	MARKING	Ink (black)
b	CORE	Alloy Sponge Powder
c	WIRE	Polyurethane copper wire
d	TERMINAL	Copper plated with Sn



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GENERAL TOLERANCES
UNLESS SPECIFIED

APPROVED BY:
Geoffrey.Song

PART NO.:
YT0630 Series

SACLE
1:1

REV
A0

$x \pm 0.35$	$x^\circ \pm 3.0^\circ$
$.x \pm 0.30$	$.x^\circ \pm 2.0^\circ$

CHECKED BY:
Elvis.Song

TEL: +86 400 1048 018

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REMARK:


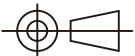
SHEET
2/8



$.xx \pm 0.25$	$.xx^\circ \pm 1.5^\circ$
$.xxx \pm 0.10$	$.xxx^\circ \pm 1.0^\circ$

DESIGND BY:
Sunny.Xu

Part No.	Inductance	DC Resistance	Saturation Current	Heating Rating Current
	L0 (μH)	DCR (mΩ)	Isat (A)	Irms (A)
	±20 %, 100 kHz, 1V	MAX.	TYP.	TYP.
YT0630-R22M	0.22	3	34	24
YT0630-R33M	0.33	3.5	25	21
YT0630-R47M	0.47	4.1	20	18
YT0630-R56M	0.56	4.5	18	16.5
YT0630-R68M	0.68	5.3	17	16
YT0630-R82M	0.82	6.0	16	14
YT0630-1R0M	1.0	7.4	15	12
YT0630-1R5M	1.5	12.1	12	12
YT0630-2R2M	2.2	15	10	9.5
YT0630-3R3M	3.3	22	9.5	8.5
YT0630-4R7M	4.7	33	9	6
YT0630-5R6M	5.6	42	6.5	5.5
YT0630-6R8M	6.8	48	6	5
YT0630-8R2M	8.2	60	5.5	5
YT0630-100M	10	68	5.5	4.5
YT0630-150M	15	113	4.0	3
YT0630-220M	22	170	3	2.5
YT0630-330M	33	270	2.5	2
YT0630-470M	47	385	2	1.5


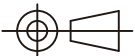
 苏州沃虎电子科技有限公司 Su Zhou Voohu Electronic Tech.Co.Ltd	TITLE: 一体成型电感	SIZE A4	UNITS MM[INCH]	GENERAL TOLERANCES UNLESS SPECIFIED		APPROVED BY: Geoffrey.Song
	PART NO.: YT0630 Series	SACLE 1:1	REV A0	x±0.35 .x±0.30	x°±3.0° .x°±2.0°	CHECKED BY: Elvis.Song
	REMARK:	SHEET 3/6		.xx±0.25 .xxx±0.10	.xx°±1.5° .xxx°±1.0°	DESIGND BY: Sunny.Xu
TEL: +86 400 1048 018	WEB: WWW.WOHU-TEK.COM					

7 Note

1. All test data is referenced to 25 °C ambient
 2. Operating temperature range - 55 °C to + 125 °C
 3. Irms (A):DC current (A) that will cause an approximate ΔT of 40 °C(reference ambient temperature is 25 °C)
 4. Isat(A):DC current (A) that will cause L0 to drop approximately 30 %
 5. The part temperature (ambient + temp rise) should not exceed 125 °C under worst case operating conditions.
- Circuit design, component placement, PWB trace size and thickness, airflow and other cooling provisions all affect the part temperature. Part temperature should be verified in the end application.

Mechanical Reliability		
Item	Specification and Requirement	Test Method
Solderability	1. No case deformation or change in appearance 2. New solder coverage More than 95%	1.Preheat: 155 °C ±5 °C , 60S±2S 2.Tin: lead-free. 3.Temperature:240 °C ±5 °C , flux 3.0S±0.5S.
Mechanical shock	1. No case deformation or change in appearance 2. ΔL/Lo ≤ ±10%	1. Acceleration: 100G 2. Pulse time: 6ms 3. 3 times in each positive and negative direction of 3 mutual perpendicular directions
Mechanical vibration	1. No case deformation or change in appearance 2. ΔL/Lo ≤ ±10%	1. Reflow: 2times 2. Frequency: 10HZ ~ 55HZ ~ 10HZ, 20 Min/Cycles 3. Amplitude: 1.52 mm 4. Directions: X,Y,Z 5. Time: 12 cycle / direction

Endurance Reliability		
Item	Specification and Requirement	Test Method
Thermal Shock	Inductance change: Within ± 10% Without distinct damage in appearance	1. First -55 °C for 30 minutes, last 125 °C for 30 minutes as 1 cycle. Go through 1000 cycles. 2. Max transfer time is 3 minutes. 3. Measured at room temperature after placing for 24±2 hours
Humidity Resistance	Inductance change: Within ± 10% Without distinct damage in appearance	1.Reflow 2 times, 2.85 °C ,85%RH,1000 hours 3.Measured at room temperature after placing for 24±2 hours
Low temperature storag	Inductance change: Within ± 10% Without distinct damage in appearance	1. Temperature: -55 ± 2 °C 2. Time: 1000 hours 3. Measured at room temperature after placing for 24±2 hours
High temperature storage	Inductance change: Within ± 10% Without distinct damage in appearance	1. Temperature: +125 ± 2 °C 2. Time: 1000 hours 3. Measured at room temperature after placing for 24±2 hours

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8 Recommended Soldering Technologies

(1) Re-flowing Profile

Preheat condition: 150 ~200 °C /60~180sec.

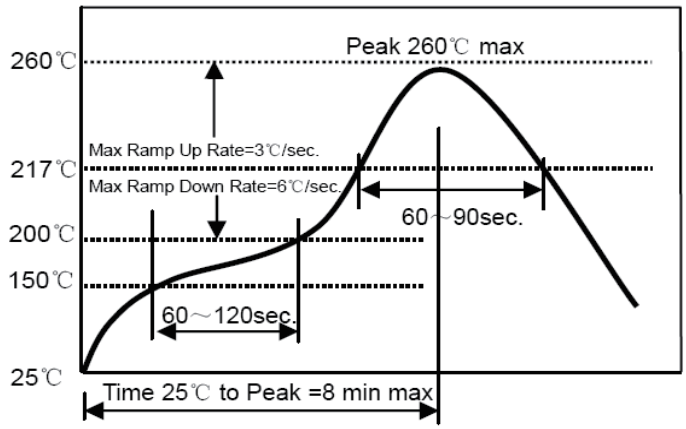
Allowed time above 217 °C : 80~120sec.

Max temp: 260 °C

Max time at max temp: 10 sec.

Solder paste: Sn/3.0Ag/0.5Cu

Allowed Reflow time: 2x max



(2) Iron Soldering Profile

Iron soldering power: Max. 30W

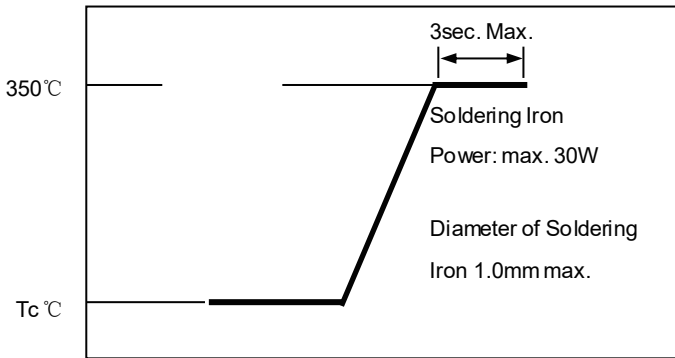
Pre-heating: 150 °C /60sec.

Soldering Tip temperature: 350 °C Max.

Soldering time: 3sec. Max.

Solder paste: Sn/3.0Ag/0.5Cu

Max.1 times for iron soldering



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REV A0

.x±0.35
.x±0.30

.x°±3.0°
.x°±2.0°

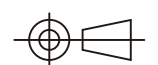
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REMARK:

SHEET 5/8



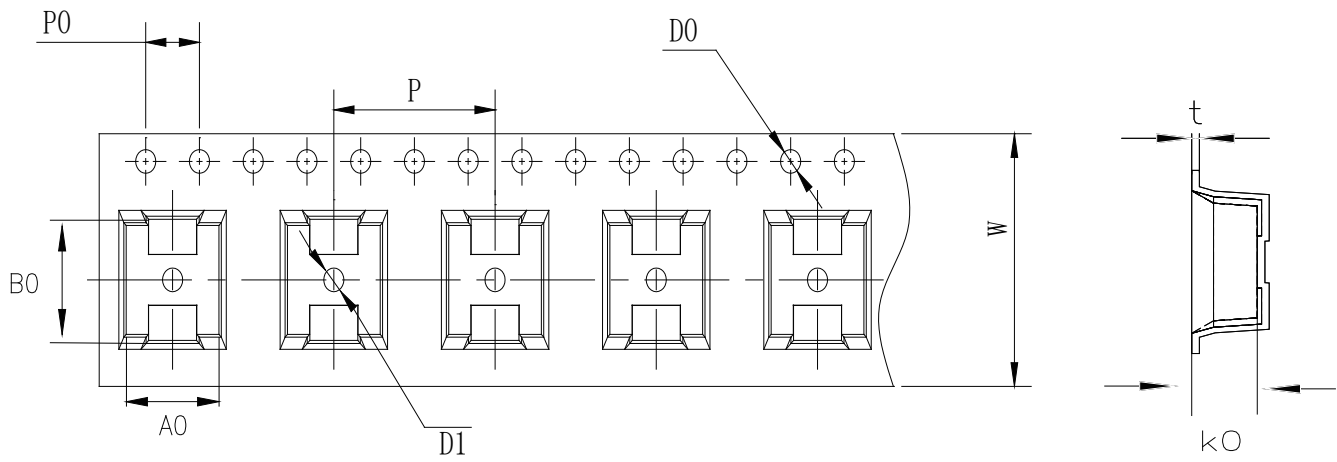
.xx±0.25
.xxx±0.10

.xx°±1.5°
.xxx°±1.0°

DESIGND BY: Sunny.Xu

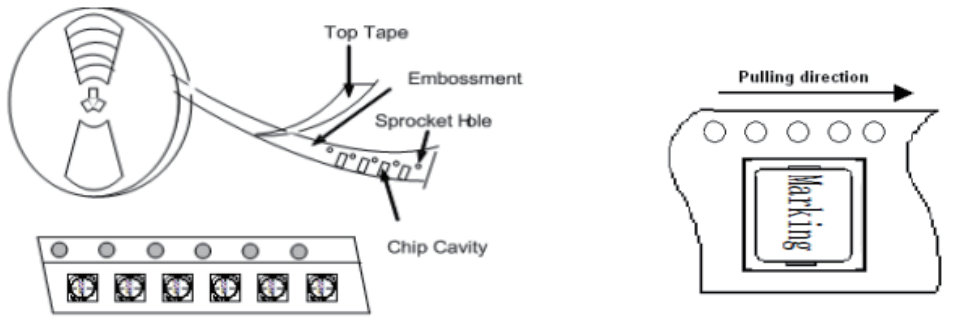
9 Packaging Information



(1) Tape Packaging Dimensions (Unit: mm)



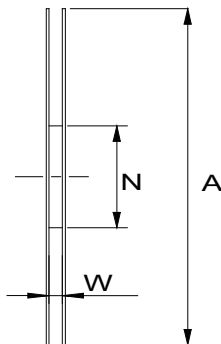
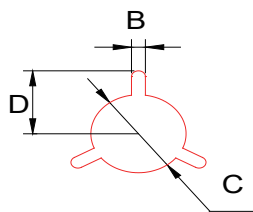
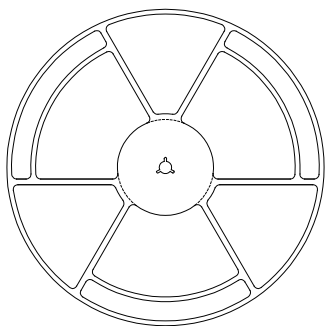
Type	Tape dimensions (mm)											
	W	P	PO	P2	DO	D1	T	A0	B0	KO	E	F
YT0630	16±0.3	12±0.1	4±0.1	2±0.1	1.5±0.1	1.5±0.1	0.35±0.05	6.9±0.1	7.5±0.1	3.3±0.1	1.75±0.1	7.5±0.1

10 Taping Drawings (UNIT:mm)



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	REMARK:	SHEET 6/8		.xx±0.25	.xx°±1.5°	DESIGND BY: Sunny.Xu
TEL: +86 400 1048 018	WEB: WWW.WOHU-TEK.COM			.xxx±0.10	.xxx°±1.0°	

(2) Reel Dimensions (Unit: mm)



A	W	N	B	C	D
330±2.0	16.8±0.2	97±0.5	2.2±0.5	13.2±0.2	10.75±0.25

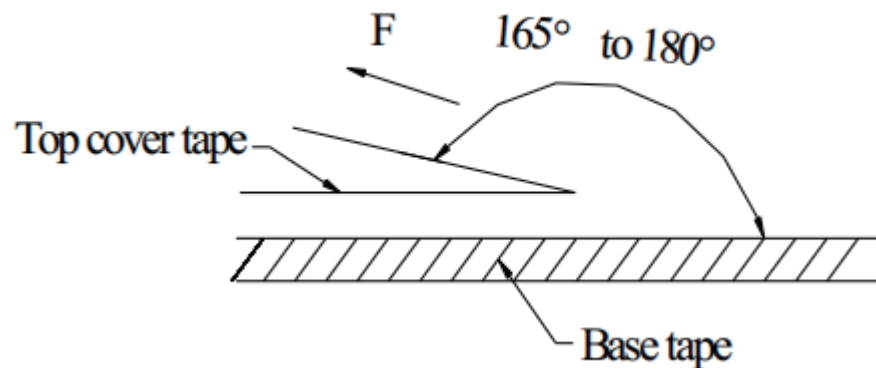
(3) Packaging Quantity(PCS)

Type	Standard Quantity		
	Reel	Inner box	Carton box
YT0630	1500 pcs / reel	3Reel / box (4500 pcs)	4 Middle boxes, (18000 pcs)

(4) Peel force of top cover tape

The peel speed shall be about 300mm/minute

The peel force of top cover tape shall be between 0.1 to 1.3 N



TITLE:
一体成型电感

PART NO.:
YT0630 Series

REMARK:

SACLE
1:1

SHEET
7/8



$x \pm 0.35$	$x^\circ \pm 3.0^\circ$
$.x \pm 0.30$	$.x^\circ \pm 2.0^\circ$
$.xx \pm 0.25$	$.xx^\circ \pm 1.5^\circ$
$.xxx \pm 0.10$	$.xxx^\circ \pm 1.0^\circ$

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DESIGND BY:
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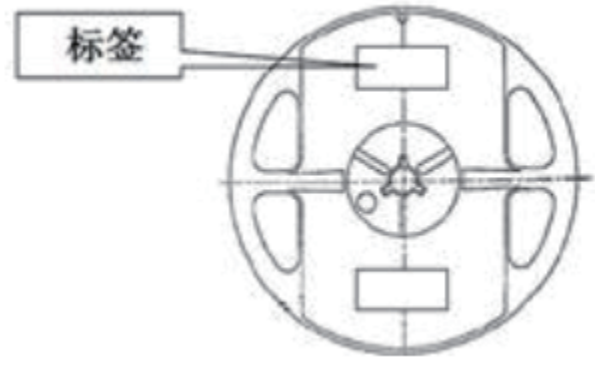
(5) Reel Label

Label on the reel

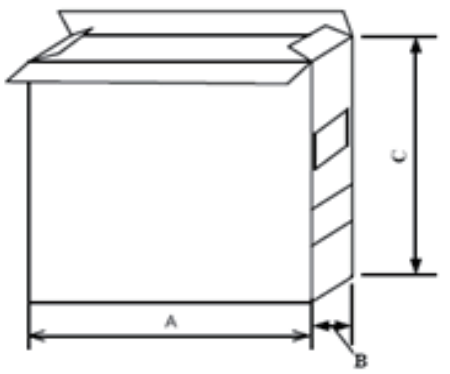
- Customer's part Number
- Lot Number
- Quantity
- date code

Shipping Label

- Customer's part Number
- Manufacturer's part Number
- Quantity
- date code

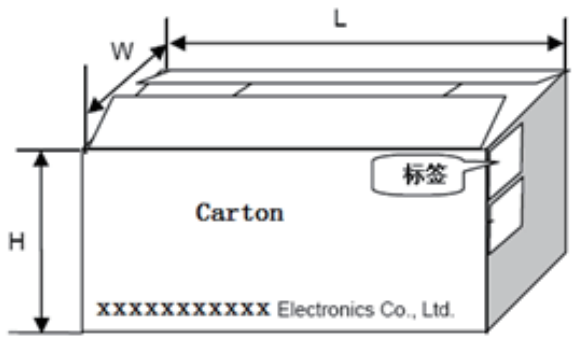


(6) Inner Box



Packaging type	A(mm)	B(mm)	C(mm)
inner box	335	70	340

(7) Carton



Packaging type	A(mm)	B(mm)	B(mm)
type	360	360	360

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SACLE 1:1

REV A0

$x \pm 0.35$
 $.x \pm 0.30$

$x^\circ \pm 3.0^\circ$
 $.x^\circ \pm 2.0^\circ$

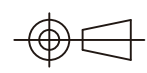
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REMARK:

SHEET 8/8



$.xx \pm 0.25$
 $.xxx \pm 0.10$

$.xx^\circ \pm 1.5^\circ$
 $.xxx^\circ \pm 1.0^\circ$

DESIGND BY: Sunny.Xu

H
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