

REACH & RoHS
COMPLIANT

introduction

- ROHS, Halogen Free and REACH compliance
- High rated current
- 125℃ 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

Applications

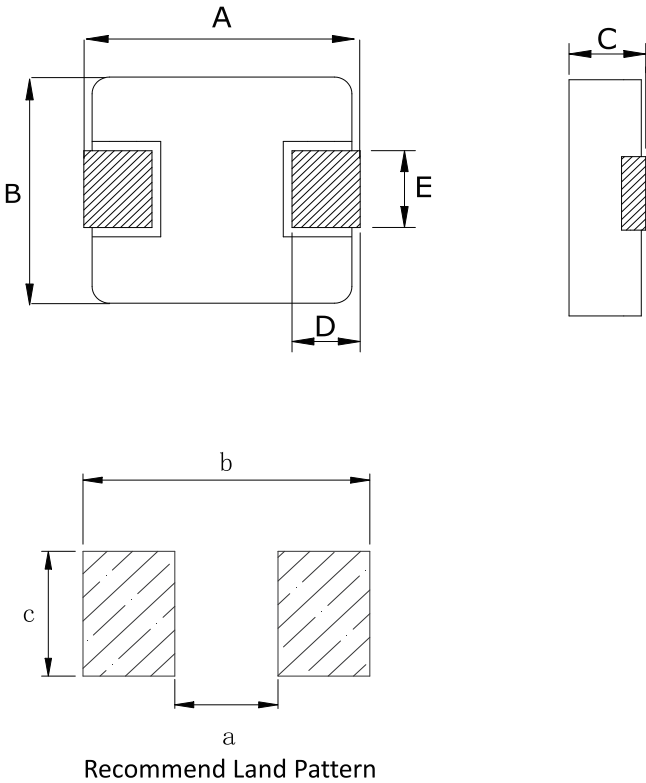
- Laptops and PCs
- Switch and servers
- Base stations
- DC/DC converters
- Battery powered devices
- SSD modules

Product Identification

YT 0630 --6R8 M
① ② ③ ④

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

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

VOOHU 苏州沃虎电子科技有限公司
Su Zhou Voohu Electronic Tech.Co.Ltd

TEL: +86 400 1048 018

WEB: WWW.WOHU-TEK.COM

TITLE:
YT0630 Series

PART NO.:
YT0630系列规格书

REMARK:

SIZE
A4

SACLE
1:1

SHEET
1/7

UNITS
MM[INCH]

REV
A0



GENERAL TOLERANCES
UNLESS SPECIFIED

x±0.35
.x±0.30

.xx±0.25
.xxx±0.10

APPROVED BY:
Geoffrey.Song

CHECKED BY:
Elvis.Song

DESIGND BY:
Sunny.Xu

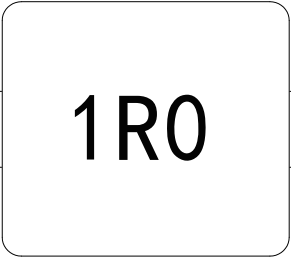
REACH & RoHS
COMPLIANT

Marking

The inductor is marked with a 3-digit code

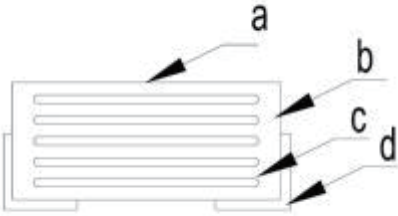
Nominal Inductance	
Example	Nominal Value
1R0	1.0 μ H
100	10 μ H
101	100 μ H


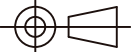
Note : Using Ink for marking




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



A	 苏州沃虎电子科技有限公司 Su Zhou Voohu Electronic Tech.Co.Ltd		TITLE: YT0630 Series	SIZE A4	UNITS MM[INCH]	GENERAL TOLERANCES UNLESS SPECIFIED		APPROVED BY: Geoffrey.Song
			PART NO.: YT0630系列规格书	SACLE 1:1	REV A0	$x\pm0.35$.x ±0.30	$x^{\circ}\pm3.0^{\circ}$.x $^{\circ}\pm2.0^{\circ}$	CHECKED BY: Elvis.Song
	TEL: +86 400 1048 018	WEB: WWW.WOHU-TEK.COM	REMARK:	SHEET 2/7		$.xx\pm0.25$.xxx ±0.10	$.xx^{\circ}\pm1.5^{\circ}$.xxx $^{\circ}\pm1.0^{\circ}$	DESIGND BY: Sunny.Xu

1		2		3		4		5		6		7		8	
REACH & RoHS COMPLIANT															
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.									
WHYT0630-R22M		0.22	3	34		24									
WHYT0630-R33M		0.33	3.5	25		21									
WHYT0630-R47M		0.47	4.1	20		18									
WHYT0630-R56M		0.56	4.5	18		16.5									
WHYT0630-R68M		0.68	5.3	17		16									
WHYT0630-R82M		0.82	6.0	16		14									
WHYT0630-1R0M		1.0	7.4	15		12									
WHYT0630-1R5M		1.5	12.1	12		12									
WHYT0630-2R2M		2.2	15	10		9.5									
WHYT0630-3R3M		3.3	22	9.5		8.5									
WHYT0630-4R7M		4.7	33	9		6									
WHYT0630-5R6M		5.6	42	6.5		5.5									
WHYT0630-6R8M		6.8	48	6		5									
WHYT0630-8R2M		8.2	60	5.5		5									
WHYT0630-100M		10	68	5.5		4.5									
WHYT0630-150M		15	113	4.0		3									
WHYT0630-220M		22	170	3		2.5									
WHYT0630-330M		33	270	2.5		2									
WHYT0630-470M		47	385	2		1.5									
<div>Notes</div> <div>1. All test data is referenced to 25 °C ambient</div> <div>2. Operating temperature range - 55 °C to + 125 °C</div> <div>3. Irms (A):DC current (A) that will cause an approximate ΔT of 40 °C(reference ambient temperature is 25 °C)</div> <div>4. Isat(A):DC current (A) that will cause L0 to drop approximately 30 %</div> <div>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.</div>															
<div>VOOHU 苏州沃虎电子科技有限公司</div> <div>Su Zhou Voohu Electronic Tech.Co.Ltd</div>				TITLE: YT0630 Series		SIZE A4	UNITS MM[INCH]	GENERAL TOLERANCES UNLESS SPECIFIED		APPROVED BY: Geoffrey.Song					
				PART NO.: YT0630系列规格书		SACLE 1:1	REV A0	x±0.35	x°±3.0°	CHECKED BY: Elvis.Song					
								.x±0.30	.x°±2.0°						
TEL: +86 400 1048 018		WEB: WWW.WOHU-TEK.COM		REMARK:		SHEET 3/7		.xx±0.25	.xx°±1.5°	DESIGND BY: Sunny.Xu					
							.xxx±0.10	.xxx°±1.0°							
1		2		3		4		5		6		7		8	

	1	2	3	4	5	6	7	8																		
REACH & RoHS COMPLIANT																										
<table><tr><th colspan="3">Mechanical Reliability</th></tr><tr><th>Item</th><th>Specification and Requirement</th><th>Test Method</th></tr><tr><td>Solderability</td><td>1. No case deformation or change in apperance 2. New solder coverage More than 95%</td><td>1.Preheat: 155℃±5℃ , 60S±2S 2.Tin: lead-free. 3.Temperature:240℃±5℃, flux 3.0S±0.5S.</td></tr><tr><td>Mechanical shock</td><td>1. No case deformation or change in apperance 2. ΔL/Lo≅±10%</td><td>1. Acceleration: 100G 2. Pulse time: 6ms 3. 3 times in each positive and negative direction of 3 mutual perpendicular directions</td></tr><tr><td>Mechanical vibration</td><td>1. No case deformation or change in apperance 2. ΔL/Lo≅±10%</td><td>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</td></tr></table>									Mechanical Reliability			Item	Specification and Requirement	Test Method	Solderability	1. No case deformation or change in apperance 2. New solder coverage More than 95%	1.Preheat: 155℃±5℃ , 60S±2S 2.Tin: lead-free. 3.Temperature:240℃±5℃, flux 3.0S±0.5S.	Mechanical shock	1. No case deformation or change in apperance 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 apperance 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			
Mechanical Reliability																										
Item	Specification and Requirement	Test Method																								
Solderability	1. No case deformation or change in apperance 2. New solder coverage More than 95%	1.Preheat: 155℃±5℃ , 60S±2S 2.Tin: lead-free. 3.Temperature:240℃±5℃, flux 3.0S±0.5S.																								
Mechanical shock	1. No case deformation or change in apperance 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 apperance 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																								
<table><tr><th colspan="3">Endurance Reliability</th></tr><tr><th>Item</th><th>Specification and Requirement</th><th>Test Method</th></tr><tr><td>Thermal Shock</td><td>Inductance change: Within ± 10% Without distinct damage in appearance</td><td>1. First -55℃ for 30 minutes, last 125℃ 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</td></tr><tr><td>Humidity Resistance</td><td>Inductance change: Within ± 10% Without distinct damage in appearance</td><td>1.Reflow 2 times, 2.85℃,85%RH,1000 hours 3.Measured at room temperature after placing for 24±2 hours</td></tr><tr><td>Low temperature storage</td><td>Inductance change: Within ± 10% Without distinct damage in appearance</td><td>1. Temperature: -55 ± 2℃ 2. Time: 1000 hours 3. Measured at room temperature after placing for 24±2 hours</td></tr><tr><td>High temperature storage</td><td>Inductance change: Within ± 10% Without distinct damage in appearance</td><td>1. Temperature: +125 ± 2℃ 2. Time: 1000 hours 3. Measured at room temperature after placing for 24±2 hours</td></tr></table>									Endurance Reliability			Item	Specification and Requirement	Test Method	Thermal Shock	Inductance change: Within ± 10% Without distinct damage in appearance	1. First -55℃ for 30 minutes, last 125℃ 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℃,85%RH,1000 hours 3.Measured at room temperature after placing for 24±2 hours	Low temperature storage	Inductance change: Within ± 10% Without distinct damage in appearance	1. Temperature: -55 ± 2℃ 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℃ 2. Time: 1000 hours 3. Measured at room temperature after placing for 24±2 hours
Endurance Reliability																										
Item	Specification and Requirement	Test Method																								
Thermal Shock	Inductance change: Within ± 10% Without distinct damage in appearance	1. First -55℃ for 30 minutes, last 125℃ 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℃,85%RH,1000 hours 3.Measured at room temperature after placing for 24±2 hours																								
Low temperature storage	Inductance change: Within ± 10% Without distinct damage in appearance	1. Temperature: -55 ± 2℃ 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℃ 2. Time: 1000 hours 3. Measured at room temperature after placing for 24±2 hours																								

Recommended Soldering Technologies

(1)Re-flowing Profile

Preheat condition: 150 ~200℃/60~180sec.

Allowed time above 217℃: 80~120sec.

Max temp: 260℃

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℃/60sec.

Soldering Tip temperature: 350℃ Max.

Soldering time: 3sec. Max.

Solder paste: Sn/3.0Ag/0.5Cu

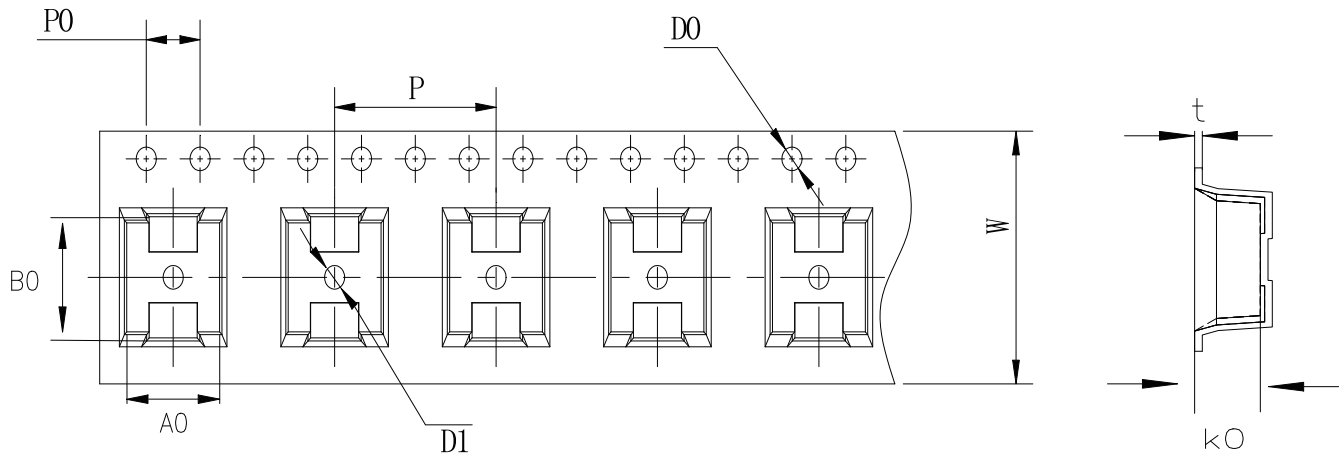
Max.1 times for iron soldering

苏州沃虎电子科技有限公司 Su Zhou Voohu Electronic Tech.Co.Ltd		TITLE: YT0630 Series	SIZE A4	UNITS MM[INCH]	GENERAL TOLERANCES UNLESS SPECIFIED		APPROVED BY: Geoffrey.Song
TEL: +86 400 1048 018 WEB: WWW.WOHU-TEK.COM		PART NO.: YT0630系列规格书	SACLE 1:1	REV A0	x±0.35	x°±3.0°	CHECKED BY: Elvis.Song
		REMARK:	SHEET 4/7		.xx±0.25	.xx°±1.5°	DESIGND BY: Sunny.Xu
					.xxx±0.10	.xxx°±1.0°	

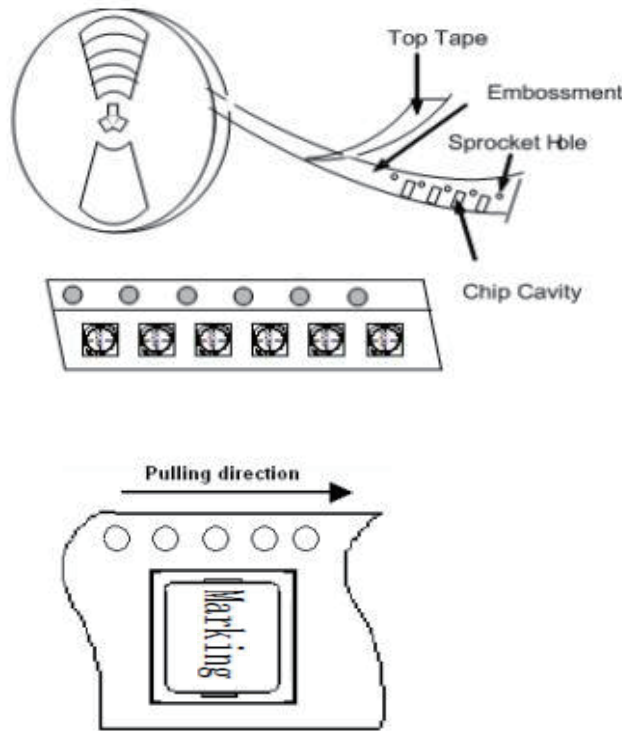
REACH & RoHS
COMPLIANT

Packaging Information

(1) Tape Packaging Dimensions (Unit: mm)



Taping Drawings (UNIT:mm)



Type	Tape dimensions (mm)											
	W	P	P0	P2	D0	D1	T	A0	B0	K0	E	F
WHYT0630	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

VOOHU 苏州沃虎电子科技有限公司
Su Zhou Voohu Electronic Tech.Co.Ltd

TEL: +86 400 1048 018

WEB: WWW.WOHU-TEK.COM

TITLE:
YT0630 Series

PART NO.:
YT0630系列规格书

REMARK:

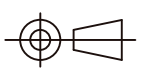
SIZE
A4

SACLE
1:1

SHEET
5/7

UNITS
MM[INCH]

REV
A0



GENERAL TOLERANCES
UNLESS SPECIFIED

x±0.35
.x±0.30

.xx±0.25
.xxx±0.10

x°±3.0°
.x°±2.0°

.xx°±1.5°
.xxx°±1.0°

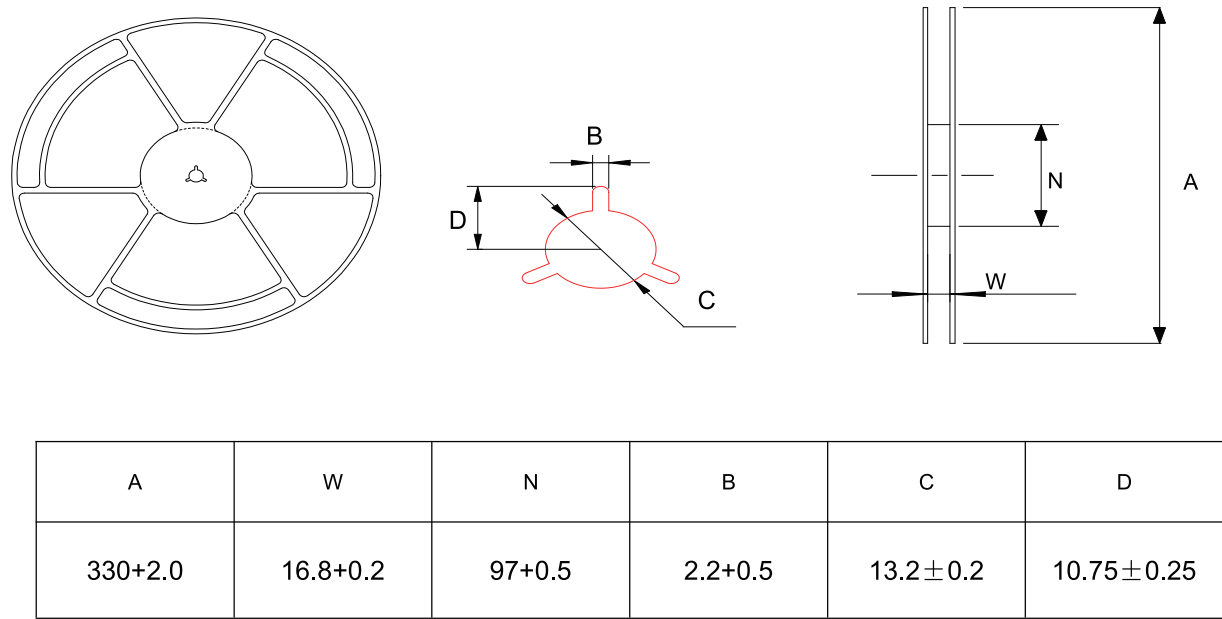
APPROVED BY:
Geoffrey.Song

CHECKED BY:
Elvis.Song

DESIGND BY:
Sunny.Xu

REACH & RoHS
COMPLIANT

(2) Reel Dimensions (Unit: mm)



(3) Packaging Quantity(PCS)

Type	Standard Quantity		
	Reel	Inner box	Carton box
WHYT0630	1500 pcs / reel	3Reel / box (4500 pcs)	4 Middle boxes, (18000 pcs)

VOOHU 苏州沃虎电子科技有限公司
Su Zhou Voohu Electronic Tech.Co.Ltd

TEL: +86 400 1048 018

WEB: WWW.WOHU-TEK.COM

TITLE:
YT0630 Series

PART NO.:
YT0630系列规格书

REMARK:

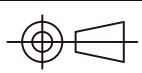
SIZE
A4

SACLE
1:1

SHEET
6/7

UNITS
MM[INCH]

REV
A0



GENERAL TOLERANCES
UNLESS SPECIFIED

x±0.35
.x±0.30

.xx±0.25
.xxx±0.10

x°±3.0°
.x°±2.0°

.xx°±1.5°
.xxx°±1.0°

APPROVED BY:
Geoffrey.Song

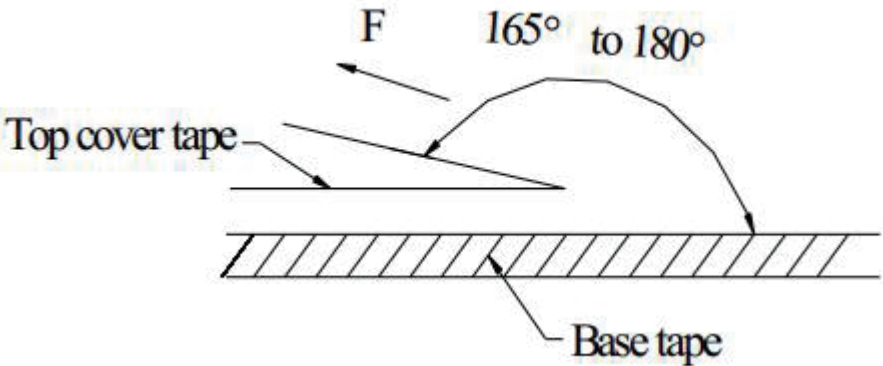
CHECKED BY:
Elvis.Song

DESIGND BY:
Sunny.Xu

H
G
F
E
D
C
B
A

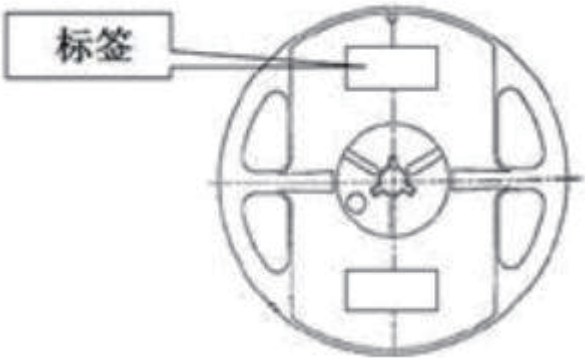
(4) Peel force of top cover tape

The peel speed shall be about 300mm/minute
The peel force of top cover tape shall be between 0.1 to 1.3 N

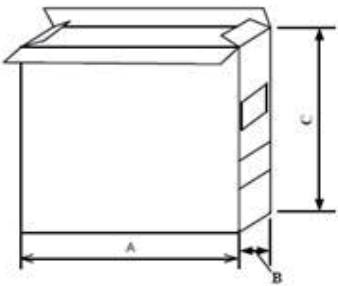


(5) Reel Label

- 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

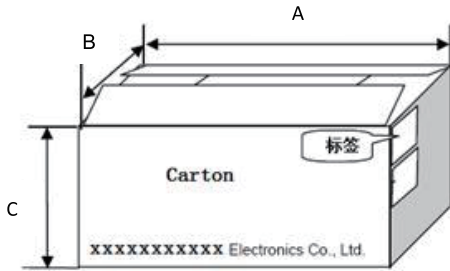


(6) Inner Box


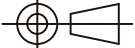


Packaging type	A (mm)	B (mm)	C (mm)
Inner box	335	70	340

(7) Carton



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

A	 苏州沃虎电子科技有限公司 Su Zhou Voohu Electronic Tech.Co.Ltd		TITLE: YT0630 Series	SIZE A4 ^{S7/7}	UNITS MM[INCH]	GENERAL TOLERANCES UNLESS SPECIFIED		APPROVED BY: Geoffrey.Song	
			PART NO.: YT0630系列规格书	SACLE 1:1	REV A0	x±0.35	x°±3.0°	CHECKED BY: Elvis.Song	
	TEL: +86 400 1048 018 WEB: WWW.WOHU-TEK.COM		REMARK:	SHEET 7/7		.xx±0.25	.xx°±1.5°	DESIGND BY: Sunny.Xu	
	1	2	3	4	5	6	7	8	