

Specification for Approval

产品承认书

Customer:

Customer P/N:

VOOHU P/N:

YT2313 Series

Version No.:

V0.1

Description:

Wire Wound Molded SMD Power Inductors

SUZHOU VOOHU Company Approval		Customer Approval (客户承认签章)
DRAWN	Geoffrey.Song	
CHECKED	Sunny.Xu	
APPROVED	Elvis. Song	
日期DATE:2026/1/26		日期DATE: 2026/1/26

Please Return One Copy to Us After Approved,TKs! (承认后请回寄一份,谢谢)

VOOHU 沃虎
造沃虎·真靠谱

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Introduction

- ROHS, Halogen Free and REACH compliance
- High rated current
- 125℃ maximum total temperature operation
- 24.0×22.3×13mm maximum surface mount package
- Low core loss
- Ultra low buzz noise due to molding construction

Applications

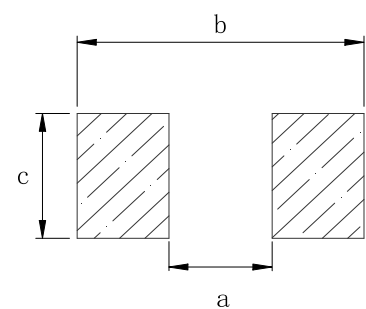
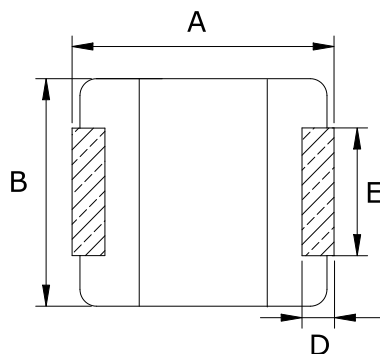
- Laptops and PCs
- Switch and servers
- Base stations
- DC/DC converters
- Battery powered devices
- SSD modules

Product Identification

YT 2313 --2R2 M
① ② ③ ④

- ① YT ----- Series name
- ② 2313 ----- Dimension
- ③ 2R2 ----- Inductance Value (2R2 = 2.2μH)
- ④ M -----Inductance Tolerance (M= ± 20%)

Dimensions (unit:mm)



Recommend Land Pattern

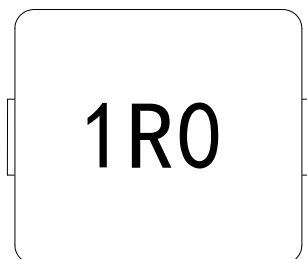
A	B	C	D	E	a typ	b typ	c typ
23.5±0.5	22.0±0.3	12.6±0.4	5.0±0.4	19.0±0.3	12.5	24	19.6

Marking

The inductor is marked with a 3-digit code

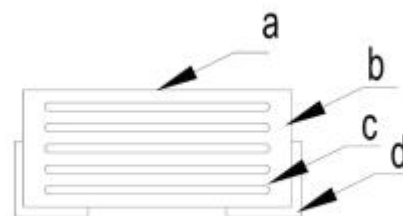
Nominal Inductance	
Example	Nominal Value
1R0	1.0 μH
100	10 μH
101	100 μH

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



Specification

Part No.	Inductance	DC Resistance	Saturation Current		Heating Rating Current	
	L0 (μH)	DCR (mΩ)	Isat (A)		Irms (A)	
	±20 %, 100 kHz, 1V	MAX.	MAX	TYP	MAX	TYP
WHYT2313-1R0M	1.0	0.95	54	60	65	70
WHYT2313-1R5M	1.5	1.15	48	52	57	62
WHYT2313-2R2M	2.2	1.25	43	48	52	58
WHYT2313-3R3M	3.3	1.75	37	41	47	49
WHYT2313-4R7M	4.7	2.2	34	38	44	47
WHYT2313-6R8M	6.8	3.1	32	36	36	40
WHYT2313-100M	10	4.15	20	28	30	33
WHYT2313-150M	15	6.12	18	23	23	26
WHYT2313-220M	22	11	14	15	18	22
WHYT2313-330M	33	15.4	10.5	12	16	19
WHYT2313-470M	47	20.8	10	12	14	17
WHYT2313-680M	68	29.5	9	12	12	14
WHYT2313-820M	82	34.2	7.7	9	10	12
WHYT2313-101M	100	40	7.5	9	9.5	11

Notes

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 %.([Internal control standards at 40% MAX](#))
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: $155^{\circ}\text{C} \pm 5^{\circ}\text{C}$, $60\text{S} \pm 2\text{S}$ 2.Tin: lead-free. 3.Temperature: $240^{\circ}\text{C} \pm 5^{\circ}\text{C}$, flux $3.0\text{S} \pm 0.5\text{S}$.
Mechanical shock	1. No case deformation or change in appearance 2. $\Delta L/L_0 \leq \pm 10\%$	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. $\Delta L/L_0 \leq \pm 10\%$	1. Reflow: 2times 2. Frequency: $10\text{HZ} \sim 55\text{HZ} \sim 10\text{HZ}$, 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 $\pm 10\%$ 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
Biased Humidity	Inductance change: Within $\pm 10\%$ 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 storage	Inductance change: Within $\pm 10\%$ Without distinct damage in appearance	1. Temperature: $-55 \pm 2^{\circ}\text{C}$ 2. Time: 1000 hours 3. Measured at room temperature after placing for 24 ± 2 hours
High temperature storage	Inductance change: Within $\pm 10\%$ Without distinct damage in appearance	1. Temperature: $+125 \pm 2^{\circ}\text{C}$ 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°C/60~120sec.

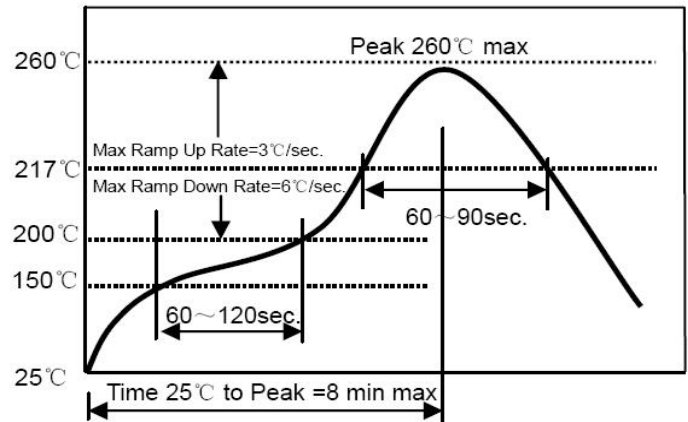
Allowed time above 217°C: 60~90sec.

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

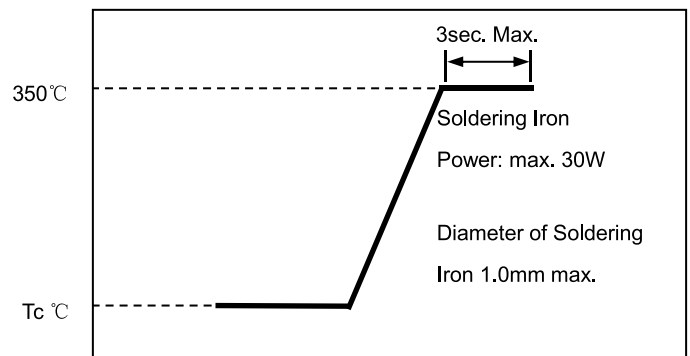
Pre-heating: 150°C/60sec.

Soldering Tip temperature: 350°C Max.

Soldering time: 3sec. Max.

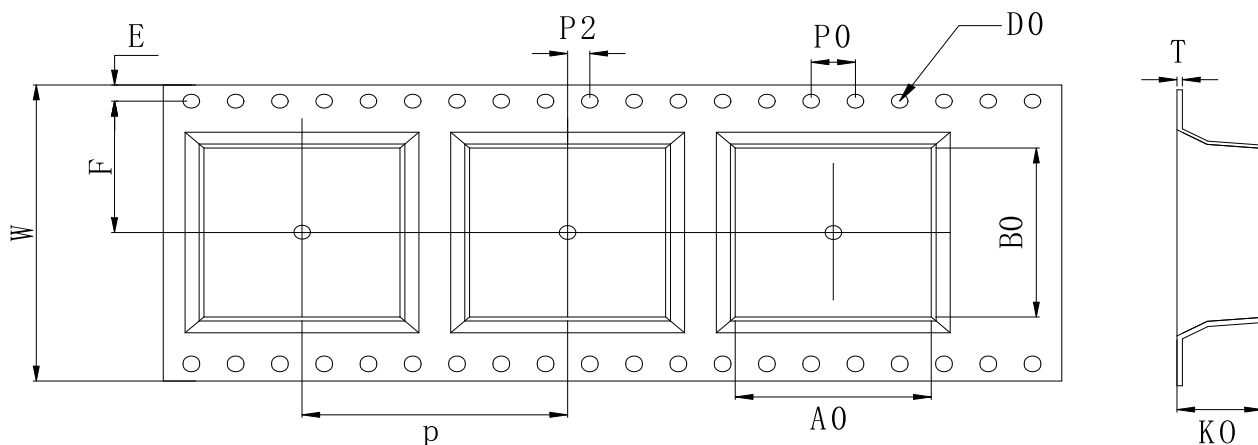
Solder paste: Sn/3.0Ag/0.5Cu

Max.1 times for iron soldering



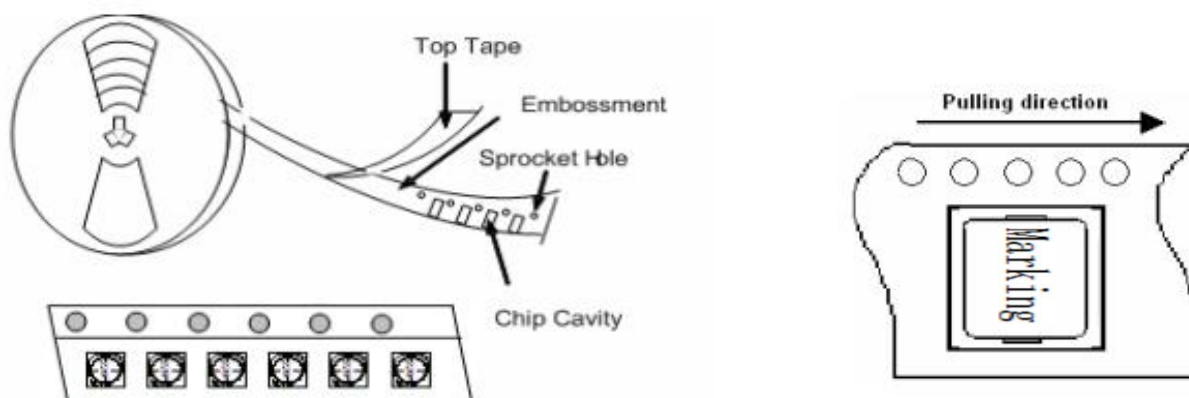
Packaging Information

(1) Tape Packaging Dimensions (Unit: mm)

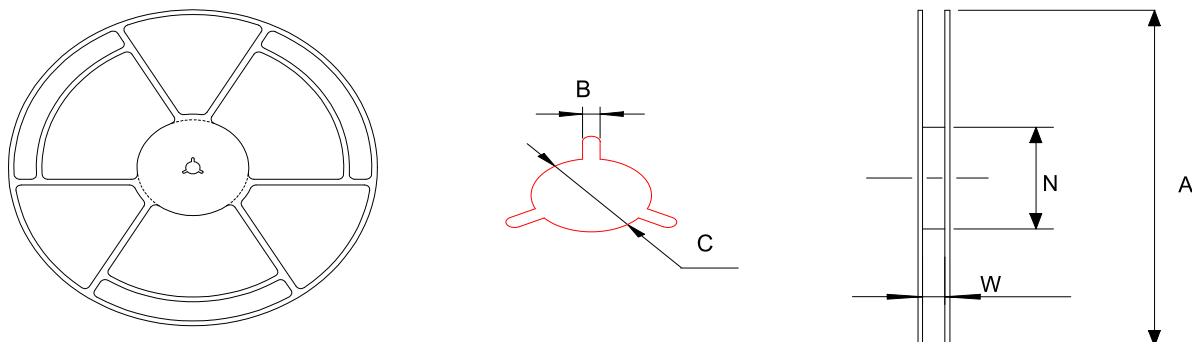


Type	Tape dimensions (mm)										
	W	P	P0	P2	D0	T	A0	B0	K0	E	F
WHYT2313	44 ±0.3	32 ±0.1	4.0 ±0.1	2.0 ±0.1	1.5 ±0.1	0.5 ±0.05	23 ±0.1	24.4 ±0.1	13.5 ±0.1	1.75 ±0.1	20.2 ±0.1

Taping Drawings (UNIT:mm)



(2) Reel Dimensions (Unit: mm)



A	W	N	B	C
330 ± 2.0	44.0 ± 0.5	97 ± 0.5	2.3 ± 0.3	13.0 ± 0.2

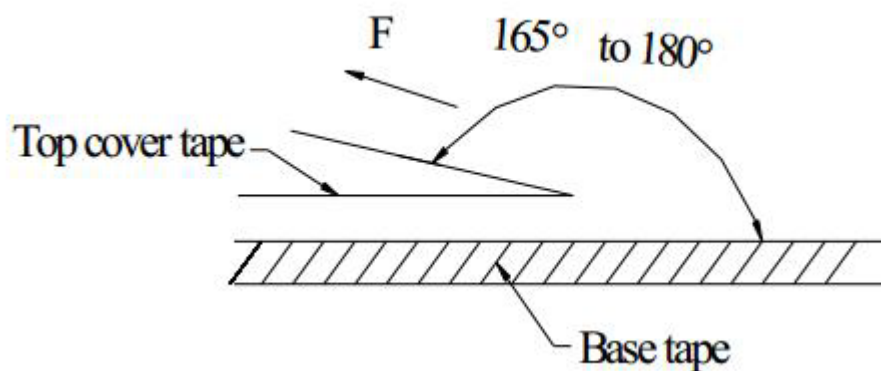
(3) Packaging Quantity(PCS)

Type	Standard Quantity		
	Reel	Inner box	Carton box
WHYT2313	80 pcs / reel	1Reel / box (80 pcs)	4 Middle boxes, (320 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



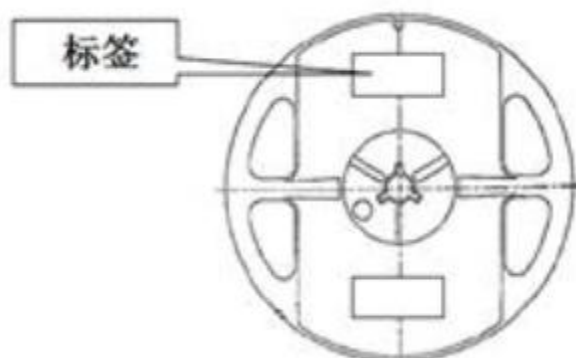
(5) Reel Label

Label on the reel

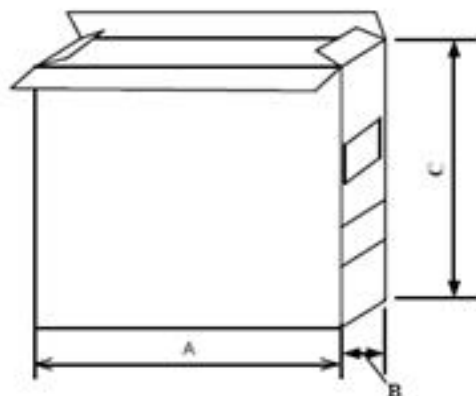
- Customer's part Number
- Lot Number
- Quantity
- date code

Shipping Label

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

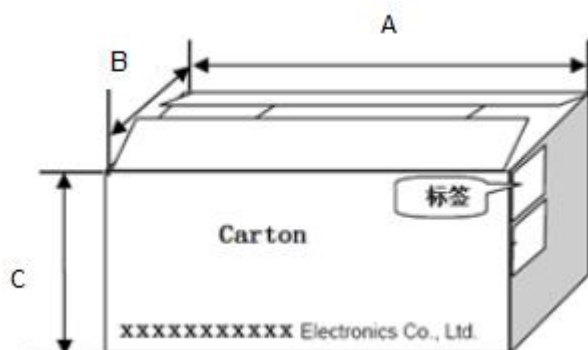


(6) Inner Box



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

(7) Carton



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