Specification for Approval
产品承认书

Customer:

Customer P/N:

VOOHU P/N: WHLT-3532A Series

Version No.: V0.1

Description: Pulse Transfomer

1G/2.5G/5G/10G Base-T Available IEEE802.3af Support

SUZHOU VOOHU Company Approval		Customer Approval (客户承认签章)
DRAWN	Geoffrey.Song	
CHECKED	Sunny.Xu	
APPROVED	Elvis. Song	
日期DATE:2025/5/23		日期DATE: 2025/5/23

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

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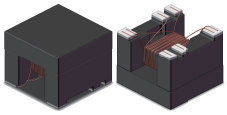
1 Features And Benefits

- LAN interfaces of various devices including network devices, communication equipment, digital consumer electronics, etc
- Compliant With Ethernet 1G/2.5G/5G/10GBase-T
- IEEE802.3af(15W) available
- Improved Return Loss And Cross Talk Properties
- High-Quality Product That Uses Auto Winding
- Operating temperature -40℃ to +105℃
- 1500Vrms/1mA/60s Hi-pot Support
- Super Small Size - available in 3532 Size
- RoHS Compliant



2 Electrical Specifications @ 25°C

1G Base-T Series

Part Number	OCL (μH)	DCR (Ω)	Insertion Loss (dB)		Return Loss (dB)		PoE Rating
	Min	Max	Max		Min		
	100KHz,0.1V		0.5-1MHz	1-125MHz	1-40MHz	40-100MHz	
WHLT-3532A-201MGN	200 @8mA	3.00	-1.2	-0.2-0.002*f^1.4	-16	-10+20log(f/80)	NON-PoE

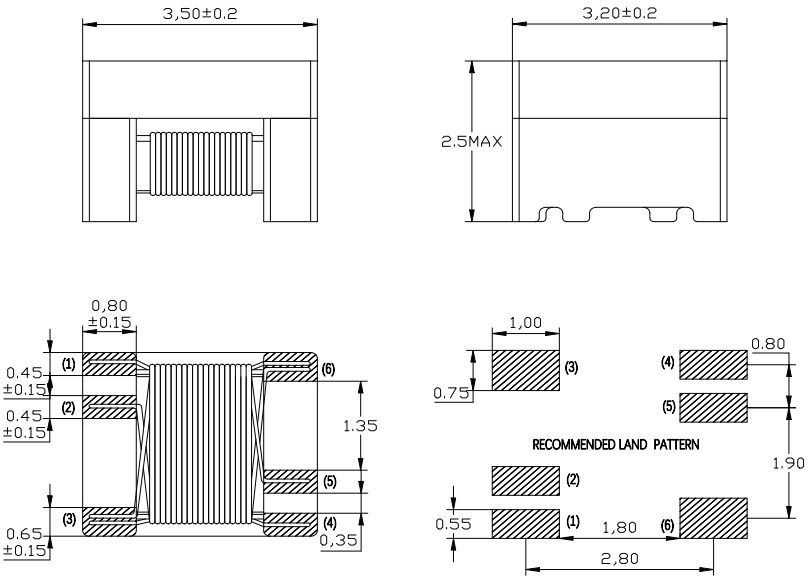
2.5G/5G Base-T Series

Part Number	OCL (μH)	DCR (Ω)	Insertion Loss (dB)		Return Loss (dB)		PoE Rating
	Min	Max	Max		Min		
	100KHz,0.1V		1-100MHz	100-250 MHz	1-100 MHz	100-250 MHz	
WHLT-3532A-151MQF	150 @8mA	3.00	-1.0	-2.0	-16	-16+10log(f/40)	PoE AF

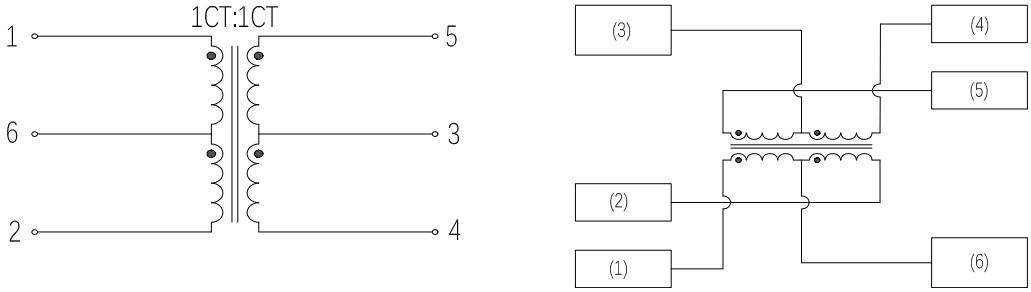
10G Base-T Series

Part Number	OCL (μH)	DCR (Ω)	Insertion Loss (dB)				Return Loss (dB)					PoE Rating
	Min	Max	Max				Min					
	100KHz,0.1V		1-200 MHz	200-300 MHz	300-400 MHz	400-500 MHz	1-100 MHz	100-200 MHz	200-300 MHz	300-400 MHz	400-500 MHz	
WHLT-3532A-121MMF	120 @10.5mA	2.00	-1.2	-1.5	-2	-3	-18	-16	-12	-10	-8	PoE AF

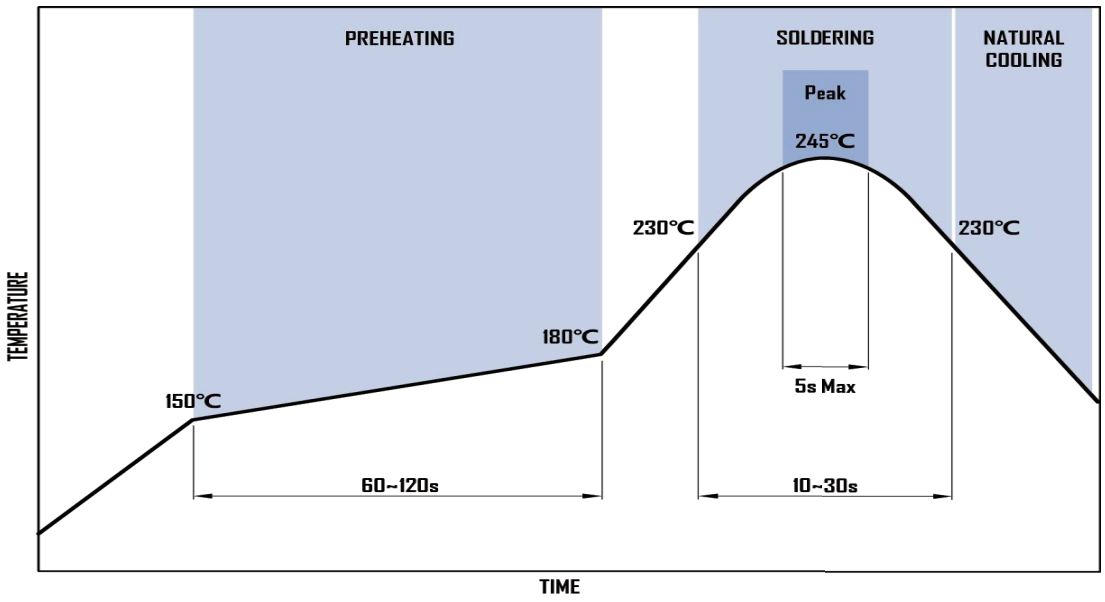
3 Dimensions (mm)& recommend layout



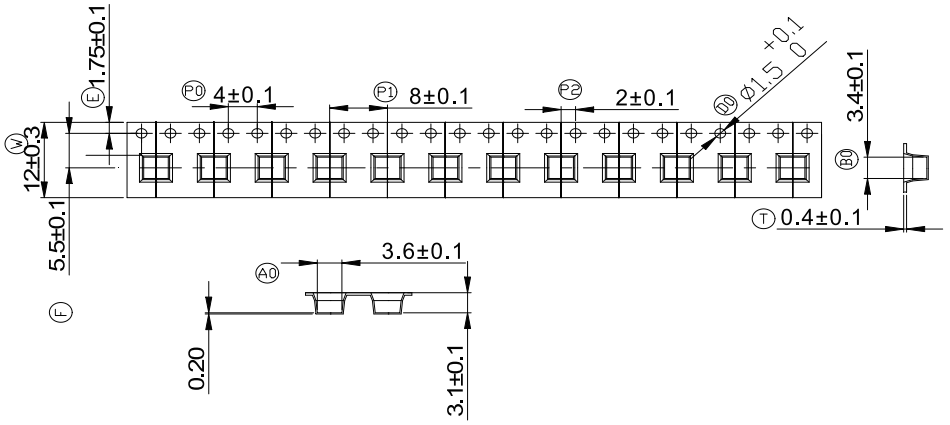
4 Schematics

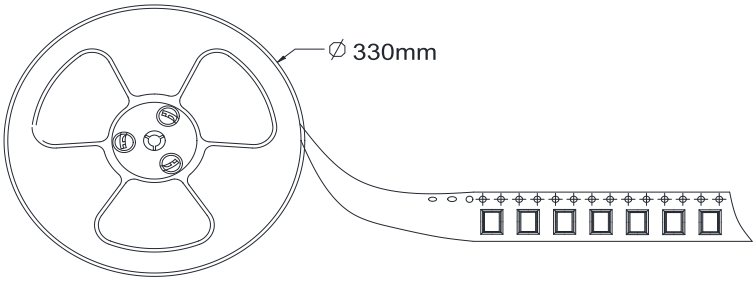


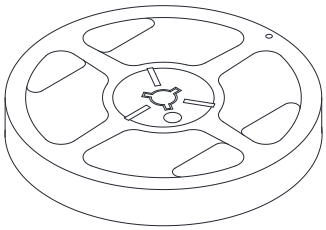
5 Recommended Reflow Profile

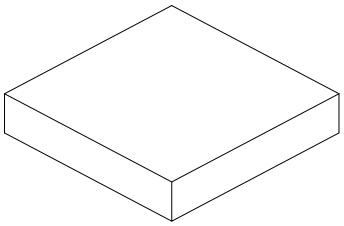


6 Packaging specification



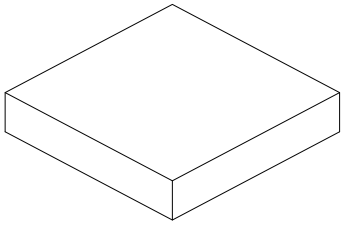


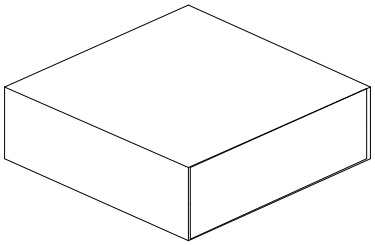




Four Reel

One Inner Carton





Five Inner Carton

One Export Carton

Package Quantity:
One Reel=2000 Pcs
One Inner Carton=2000*4=8000 Pcs
One Export Carton=8000*5=40000 Pcs

7 Reliability test

NO.	Test Item	Standard Reference	Test Condition
1	High temperature storage test	IPC/JEDEC J-STD-020D	Temperature： 125±2℃ Time： 168 hours Measurement at 24±4 hours after test conclusion.
2	Low temperature test	IPC/JEDEC J-STD-020D	Temperature： -40±2℃ Time： 168 hours Measurement at 24±4 hours after test conclusion.
3	Constant temperature and constant humidity test	GB/T 2423.3(IEC 60068-2-78)	Temperature: 40±2℃ / humidity:93±2%RH Time: 168 hours Measurement at 24±4 hours after test conclusion.
4	High temperature and high humidity test	GB/T 2423.50	Temperature: 85±2℃ / humidity:85±2%RH Time: 168 hours Measurement at 24±4 hours after test conclusion.
5	Thermal shock test	IPC/JEDEC J-STD-020D	First -40±5℃ for 30±2 minutes， last 125℃ 30±2 minutes as 1 cycle. Total 100 cycles.
6	Salt spray test	GB/T2423.17(IEC 60068-2-11	Concentration :(5±0.1) % PH : 6.5 ~ 7.2 Temperature: 35 ±2 ℃ Time: 24 hours
7	Solder ability test	GB/T 2423.28(IEC 60068-2-20	Preheating: 150±5℃, 60 seconds Immerse the terminal in flux for 5 seconds.then dip the terminal into a soldering bath of 245±5℃ for 2±0.5 seconds.
8	Drop test	GB/T 2423.8(IEC 60068-2-32	Floor should be hard,strong,concrete. Height:0.8m. Test 6 surfaces , 3 ridges and 1 corner of Test-box.
9	Vibration test	GB/T 4857.7	Apply frequency 10~100~10Hz 1.52mm±10% amplitude in each of perpendicular direction for 20 minutes. Total 12 cycles
10	Soldering resistance test	GB/T 2423.50	Preheating: 150±5℃, 60~120 seconds dip the terminal into a soldering bath of 260±5℃ for 10±3 seconds with 3 times.
11	Terminal strength	MIL-STD-202	PCB specification: 100mm X 40mm. 4 layer board Thickness: 1.60 + / - 0.2 mm 1、>0805 inch/2012mm ： 9.8N（1kg） 2、<=0805 inch/2012mm： 4.9N（0.5kg）
12	Plate bending test	MIL-STD-202	PCB specification: 100mm X 40mm. 4 layer board Thickness: 1.60 + / - 0.2 mm Displacement: 2mm Hold time: 60±1s

REMINDERS

- The best assembly quality guarantee period of product: 12 months (From shipment date)
  Storage condition : seal in packaging, (temperature: 5 to 40°C, humidity: 10 to 75% RH or less).
- If taking out for use, the remaining products should be sealed in plastic bags and preserved in accordance with the above conditions, to avoid oxidation of electrodes and affect soldering status.
- Do not use or store in locations where there are conditions such as gas corrosion (salt, acid, alkali, etc.).
- Before soldering, be sure to preheat components.
  The preheating temperature should be set so that the temperature difference between the solder temperature and chip temperature does not exceed 150°C.
- Always handle products with care to avoid damage.
- Do not touch electrodes with bare hands directly, as oil secretions may inhibit soldering.
  Always ensure optimum conditions for soldering.
- Soldering corrections after mounting should be within the range of the conditions determined in the specifications.If overheated, a short circuit, performance deterioration, or lifespan shortening may occur.
- Use a wrist band to discharge static electricity in your body through the grounding wire.
- Do not expose the products to magnets or magnetic fields.
- Do not use for a purpose outside of the contents regulated in the delivery specifications.
- Do not use for Autimotive application.