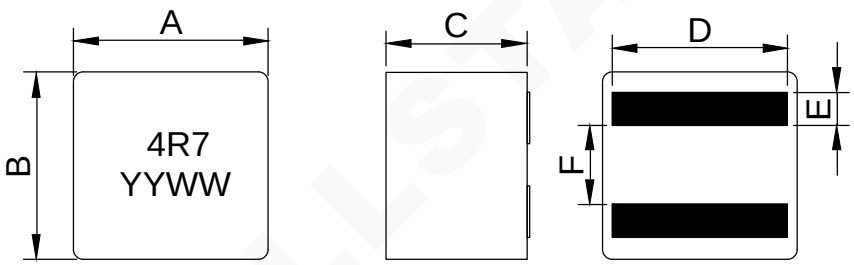
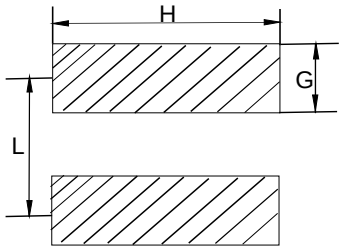
1.PHYSICAL CHARACTERISTICS(mm)



A=11.9±0.4 ；B=11.0±0.4；C=10.0MAX；
D=9.0TYP ；E=2.2TYP ； F=4.45±0.3

2. RECOMMENDED LAND PATTERN



L(mm)	G(mm)	H(mm)
6.65Typ	2.38Typ	9.5Typ

3.ELECTRONICAL SPECIFICATIONS

Part No	Inductance (uH)	Test frequency (Hz)	SRF MHz Typ	DC resistance (mΩ) MAX Typ	Saturation current Is at A Typ	Heat Rating current Irms A Typ
PHS1010-4R7M-BX	4.7±20%	1MHz/0.1V	19	5.7 (5.2)	25.4	24.0

- Isat for inductance drop 30% from its value without current.
- Irms for a 40℃rise above temperature 25℃ ambient.

Test equipment

L/Q: TH2838A

Rdc:TH2512B

IDC : TH2838A+TH1773

Test temperature range: +25°C typ.

Operating temperature range: -40°C ~+125°C

Storage temperature range: TMP0~25°C ， RH20%~75%

4. MATERIAL LIST

NO.	ITEM	DESCRIPTION	UL NO	MANUFACTURE
1	CORE	ALLOY POWDER		JIANGSU TIANYI ULTRA-FINE METAL POWDER ADVANCED TECHNOLOGY &MATERIALS CO LTD OR EQUIV
2	WIRE	Flat Wire-180°C	E318511	WELL ASCENT SUNTEK WIRE OR EQUIV.
3	SOLDER	Sn99.3%/Cu0.7%		SHENMAO TECHNOLOGY INC. OR EQUIV
4	INK	BLACK/WHITE		BON MARK ELECTRONICS CO.,LTD OR EQUIV
5	CLIP	CU		LIANCHENG METALS&ELECTRONIC GANGYU ELECTRONICS INC. OR EQUIV.

NOTES:

Temp 20℃ 48%RH

RoHS Compliant

NAME	Power inductor		
CUSTOMER P/N	XAL1010-472ME	Date	2021-05-24
FULLSTAR P/N	PHS1010-4R7M-BX	Rev. A1	Page 1/4
Drawn. by :MingYue Ma	Checked. by :Zhi Xin Pu	Approve. by :Jie Sun	

Drawing changes	Rev.	
	Rev.	

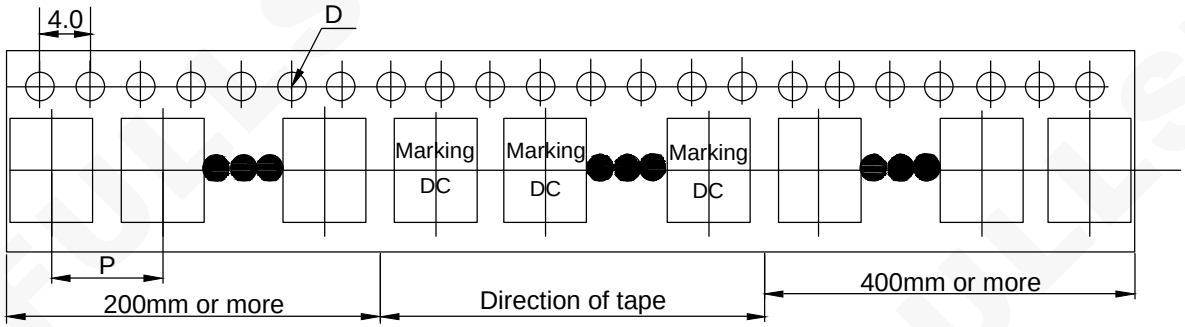
SHAANXI FULLSTAR ELECTRONICS CO.,LTD

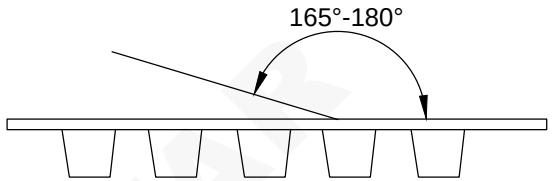
www.xfullstartechs.com

Tel:86-029-86676405

Fax:86-029-86676405

1. TAPE SIZE(unit:mm)





Tape width	Distance	Pull-of force
24mm	16mm	20~120g

- The packing method
  300 PCS/REEL

NOTES:
Temp 20℃ 48%RH
RoHS Compliant

NAME	Power inductor		
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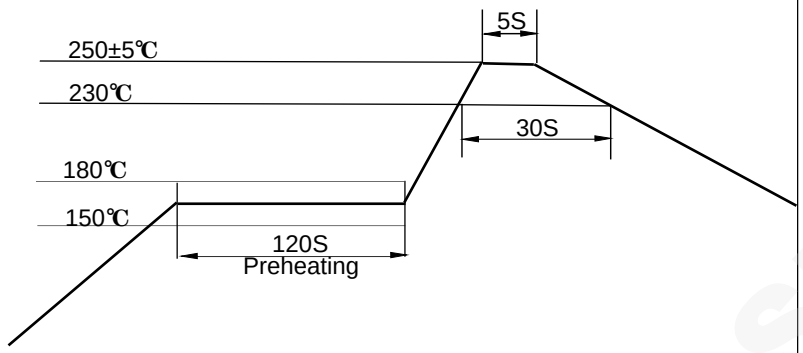
FULLSTAR

RELIABILITY TEST

*Electrical performance test		
Item	Specification	Test method
Temperature Coefficient	ΔL/L 25°C ≤ ±10%	After the test should be completed, the sample has stabilized at an ambient temperature of -40 to +125°C, at this time the ratio of the product's L (ΔL) value to the original L value, suitable for a normal temperature and humidity should be normal It is ΔL / L 25 ° C ≤ ± 10%.
Overload test	During the test no smoke,no peculiar,smell, no fire.	Apply 1.2 times as rated current for 5 minutes.
*Environmental characteristics		
Reflow soldering	No damage or problem	Temperature distribution reflow Pre-heat: 150-180° C, 120 sec Peak temperature: 250±5°C, 5sec Maintain temperature: 230 ± 5 ° C, 30 ± 5 sec



NOTES:
Temp 20℃ 48%RH
RoHS Compliant

NAME	Power inductor		
CUSTOMER P/N	XAL1010-472ME	Date	2021-05-24
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*Environmental characteristics

Item	Specification	Test method
Solder ability	The electrodes shall be at least 90% covered with new solder coating	The soldering surface is immersed in the flux and then immersed in a 245±5°C tin furnace for 5 seconds.
Low Temperature Resistance	ΔL / L0 ≤ ± 10%, there should be no mechanical damage	The sample should be left at 96 ± 4 hours at a temperature of -55± 3 ° C and returned to completion within 1 hour of the normal temperature range.
High temperature Resistance	ΔL / L0 ≤ ± 10%, there should be no mechanical damage	The sample should be left for 96 ± 4 hours at a temperature of 125 ± 3 ° C. Tested after returning to the normal temperature range for 1 hour.
Humidity Resistance	ΔL / L0 ≤ ± 10%, there should be no mechanical damage	The sample should be left at 96 ± 4 hours, at a temperature of 40 ± 2 °C: and at a humidity (RH) of 90-95%. The test was resumed after 1 hour in the normal temperature range.
Temperature cycle	1. No visible mechanical damage. 2. The change in sense value is less than 10%. 3. The resistance value changes less than 5%	Maintain between -40℃ and +125 °C for 15 min, transfer time ≤ 1 min, cycle times 5 times, recovery time: test within 24 h (recovery time at least 4 h)
Vibration	ΔL / L0 ≤ ± 10%, there should be no mechanical damage	Samples should be soldered to printed circuit boards When the vibration has amplitude and 1.5 mm The frequency is from 10-55-10Hz / 1 minute, and the repetition should be applied to 3 directions (X, Y, Z) for 2 hours each for 6 hours.

NOTES:
Temp 20℃ 48%RH
RoHS Compliant

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