

Product Series:	GSDRH4	Brand:	GOTREND
File Version:	GSDRH4-125P-100M-V1R0	Editor:	Teddy Sun
Established Date:	2021.03.04	Description:	Dual Winding,Shielded Inductor
Latest Edit Date:	2021.03.04	Pages:	1 / 4

**\* Features & Application:**

- 1.As a transformer : SPEIC , flyback
- 2.As an inductor : buck , boost , coupled inductor
- 3.DC-DC converters
- 4.VRM inductor for CPU and DDR power supplies
- 5.Input and output filter chokes

**\* Product Identify:**

Pin Foot	EMI	Color	Made In
SMD	Shield	Black	China / Taiwan

**RoHS Compliant – SGS Test Report**

Pb	Cd	Hg	Cr+6	PBB	PBDE
<1000ppm	ND	ND	ND	ND	ND

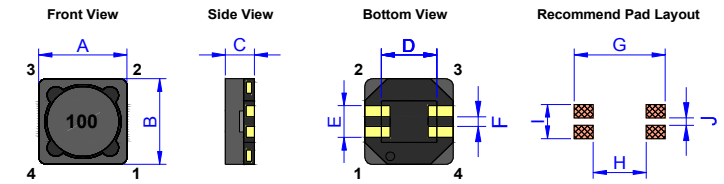
**\* Part No. Example:**

PN	GSDRH4	125	P	100	M
ID	1	2	3	4	5

- 1 GOTREND Series Code
- 2 Dimension Code : 125 = (L) 12.5 x (W) 12.5 x (H) 6.5 mm
- 3 RoHS Compliant
- 4 Inductance : 100 = 10.0 uH
- 5 Tolerance : M = 20%

**\* Dimensions: [mm]**

*Base replaceable without notice!*

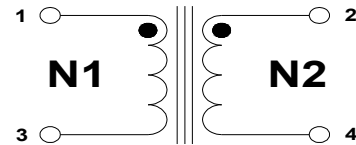


Size Code	A (Max)	B (Max)	C (Max)	D (Ref.)	E (+/-0.2)	F (+/-0.2)
125	12.50	12.50	6.50	7.30	4.90	1.50
		G (Ref.)	H (Ref.)	I (Ref.)	J (Ref.)	
		13.80	6.10	6.00	1.00	

**\* Operating & Storage Condition:**

- 1.Storage Condition -40 ~ +125 ° C ( range is application specific )
- 2.Storage Life Time 12 Months @ 20 ° C / RH 65% ( no seal off)
- 3.Operating Condition -40 ~ +125 ° C ( range is application specific )

**\* Schematic:**



**Attention & Caution:**

- \* Keep out of splashing water or salt water
- \* Toxic Gas (Hydrogen sulfide, Sulfurous acid, Chlorine, Ammonia)
- \* Vibrations or shocks which exceed the specified condition
- \* Dew condense
- \* Please be careful for the stress to this product by board flexure or something after the mounting.

**\* Test Condition:**

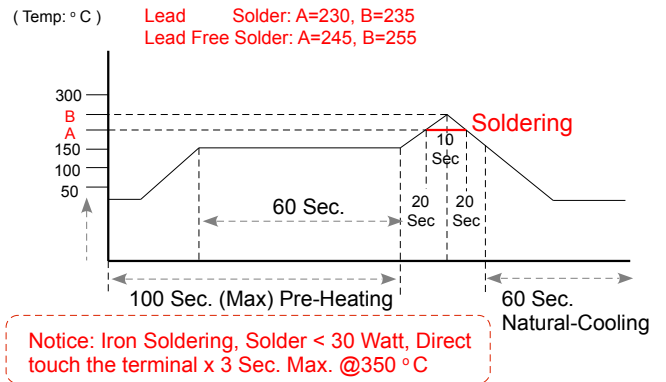
- Equipment**
- 1.L – WK3260 LCR Meter
  - 2.RDC – Twintex TM8089A
  - 3.IDC – WK3260+3265B DC-Bias
  - 4.Dimension - Mitutoyo
  - 5.Temperature – TECPEL 305A

**Ambient** Temperature 20 ± 5 ° C  
Humidity RH 65 ± 20%

If there may be any doubt on the test result, Measurement shall be made within the following limits:

**Ambient** Temperature 25 ± 5 ° C  
Humidity RH 75 ± 10%

**\* Recommend IR Reflow Curve: GTX-IR-FILE001**



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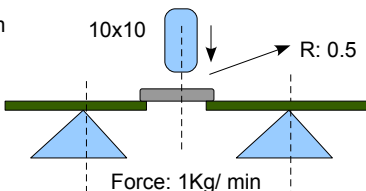
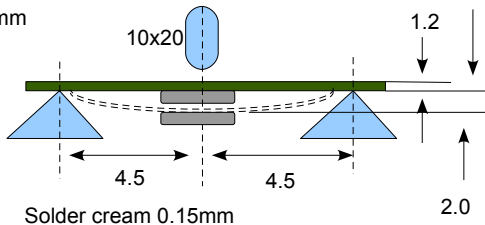
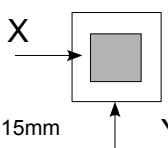
\* Electrical Characteristics :

GOTREND PN	Inductance L1 , L2 ( uH )	DCR1 , DCR2 ( m Ohm )	DCR1 , DCR2 ( m Ohm )	Irms N1 , N2 ( A )	Isat N1 , N2 ( A )	SRF N1 , N2 ( MHz )
GSDRH4-125P-100M	10.0 +/- 20%	40.0 Typ.	50.0 Max.	2.0 Max.	5.0 Typ.	20.0 Typ.

- Open Circuit Inductance Test Parameters : @ 1KHz / 0.25V
- Irms : Base on temp. rise up 40°C Max.
- Isat : Base on L drop 10% Typ.
- Turns Ratio ( 1 - 3 ) : ( 2 - 4 ) = 1 : 1

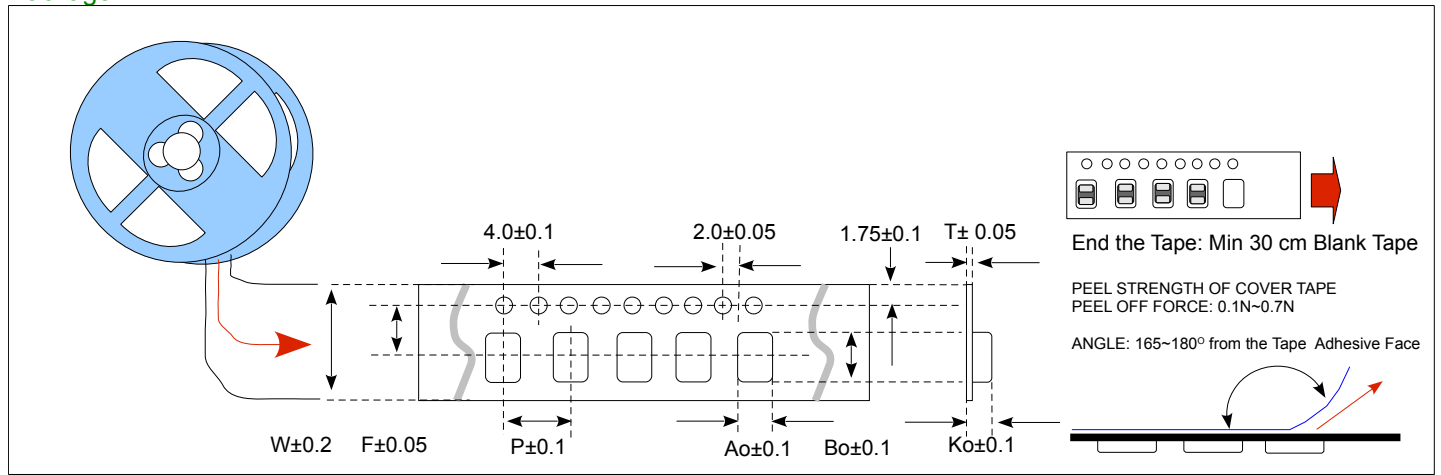
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### Reliability:

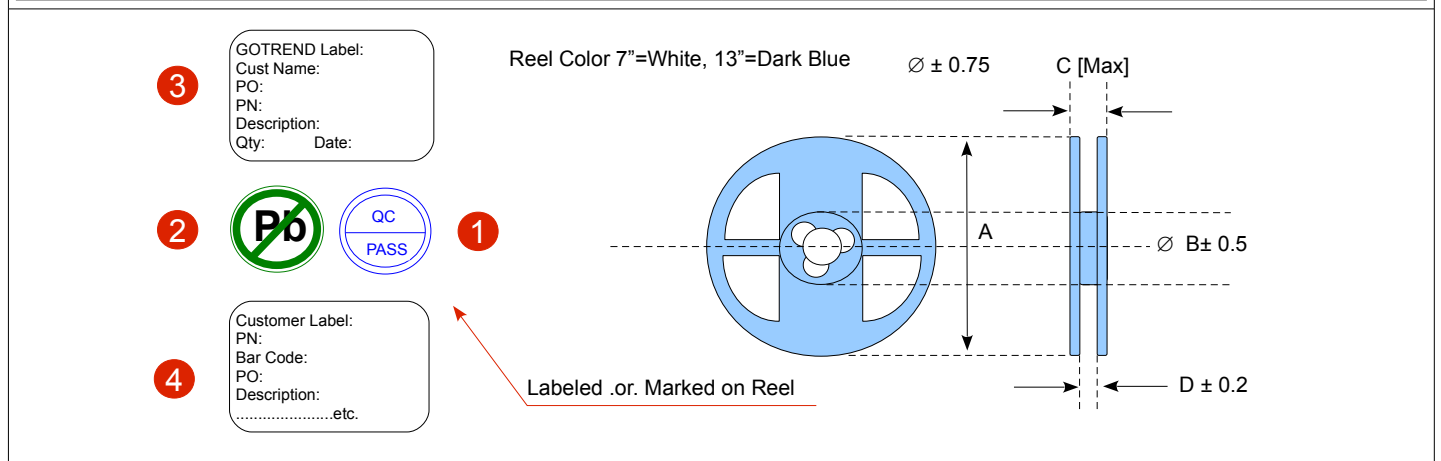
SN	Test Item	Test Condition	Specification	Sample Qty/pcs	Result
1	Dimension	Actual Size ...	Meet Spec	10	Pass
2	Thermal Shock (Temperature Cycle)	Temperature:-40 °C / +125 ° C kept stabilized for 30 minutes each Cycle: 20 Cycles (power off)	Elec. no variation Appearance no deformation	10	Pass
3	Humidity Resistance	Humidity: 90%~ 95% RH Temperature: 40±2 ° C Test Time: 120±2 Hours	Elec. no variation Appearance no deformation	10	Pass
4	HighTemperature	Temperature: 125±2 ° C Humidity: 20% Testing Time: 120±2 Hours	Elec. no variation Appearance no deformation	10	Pass
5	Low Temperature	Temperature: -40 ± 2 ° C Time: 120±2 Hours	Elec. no variation Appearance no deformation	10	Pass
6	Temperature and Humidity Cycle	Temperature: 125±2 ° C Humidity RH 90~95% Time: 24Hr x 8 Days	Elec. no variation Appearance no deformation	10	Pass
7	Vibration	Frequency: 10Hz~55Hz Amplitude: 1.5mm Direction: X,Y,Z Time: 2 Hours each	Elec. no variation Appearance no deformation	10	Pass
8	Solderability 吃	Dip pads in Flux and test by Solder Pot (96.5 Sn/3.5Ag Solder) @ Temperature 255 ± 5 ° C / 5 ± 1 Sec Soldering Area must be cover > 90%	Elec. no variation Appearance no deformation	10	Pass
9	IR Reflow Soldering	Go through real SMT IR-Reflow.... Temperature Tolerance : (± 5 ° C ): IR temperature curve according to GTX-IR-FILE001 Cycles: x 2	Elec. no variation Appearance no deformation	10	Pass
10	Iron Solder Heat Resistance	Solder Temp.: 350 ± 5 ° C Flux: Rosin Dip time: 5±1 seconds	Elec. no variation Appearance no deformation	10	Pass
11	Bending Strength	Unit: mm 	Elec. no variation Appearance no deformation	10	Pass
12	Flexure Strength	Unit: mm 	Elec. no variation Appearance no deformation	10	Pass
13	Terminal Strength	 Mount on PCB Solder Cream 0.15mm Push 10N force to X,Y direction	Must no crack and damage	10	Pass
14	High-Voltage	100 V DC between core & winding	Elec. no variation Appearance no deformation	10	Pass
15	ORT:on going reliability test	Base on Spec for approval	Elec. no variation Appearance no deformation	10	Pass

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Package :



Size / mm	W	P	Ao	Bo	Ko	T	F
GSDRH4-125	24	16	12.6	12.6	6.6	0.40	11.5



Size / mm	A	B	C	D	Reel Size	Qty / Reel
GSDRH4-125	330	100	28.9	24.5	13"	500

