



Product Series Code:	GSDRH4	Brand:	GOTREND
File Version:	GSDRH4-72P-1R2N-V1R0	Editor:	Teddy
Established Date:	2010.12.03	Description:	Dual Winding Shielding Inductor
Latest Edit Date:	2010.12.03	Pages:	1 / 6

Version Information:

SN	Date	Version Code	Modify Description	Editor
1	2010.12.03	V1R0	Original build	Teddy

Custom-Made Design Specification:

GOTREND PN	Inductance @ 100KHz/0.3V (uH)	L-Tolerance M=20% N=30%	RDC (m ohm / Typ.)	RDC (m ohm / Max.)	Isat 1 @ L-Drop 10% (Amp / Max.)	Isat 2 @ L-Drop 35% (Amp / Max.)	Irms @ ΔT=40 °C (Amp / Max.)	Color Code Marking

★ Important Declaration 重要聲明:

Human Life Declaration: If any application in/on human life about device like Aircraft / Medical Equipment ...etc, the approval must be passed by your unique and detail test or evaluation result. GOTREND Tech. only responsible for our items cost and possible rework charge !
 客戶端生命相關之產品應用,如醫療,航太...等直接人命相關之設備,必須根據客戶特別且仔細之測試驗證,確保研發及量產的產品最終品質,高創科技將僅對不良零件本身之價值及相關直接重工的費用負責!

謝謝您的採用,任何問題,請發電郵反映,或來電工程部洽詢!
 Thanks for your patronage,if any question,PLS feel free Email contact or call for service !
<http://www.gotrend.com.tw> E.mail: service@gotrend.com.tw



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*** 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

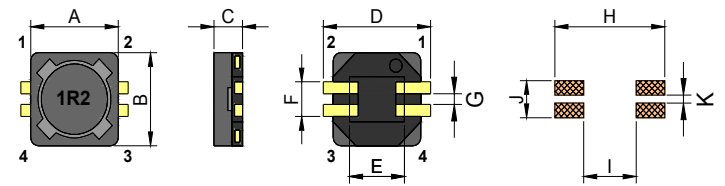
*** Part No. Example:**

PN	GSDRH4	-	72	P	-	1R2	N
ID	1	2	3	4	5		

- 1 GOTREND Series Code
- 2 Dimension Code: 72 = (L) 7.5 x (W) 7.5 x (H) 2.6 mm
- 3 RoHS Compliant
- 4 Inductance : 1R2 = 1.2uH
- 5 Tolerance : N = 30%

*** Dimensions: [mm]**

Base replaceable without notice!



Size Code	A (Max.)	B (Max.)	C (Max.)	D (+/-0.3)	E (Ref.)	F (+/-0.2)
72	7.50	7.50	2.60	8.60	4.00	2.60
	G (Ref.)	H (Ref.)	I (Ref.)	J (Ref.)	K (Ref.)	
	1.10	8.80	3.80	2.90	1.00	

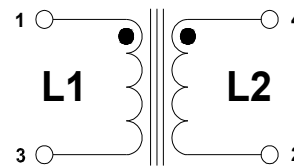
*** Operating & Storage Condition:**

- 1.Storage Condition -40 ~ +85 ° C (range is application specific)
- 2.Storage Life Time 6 Months @ 20 ° C / RH 65% (no seal off)
- 3.Operating Condition -40 ~ +125 ° C (range is application specific)

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.

*** Schematic:**



*** Test Condition:**

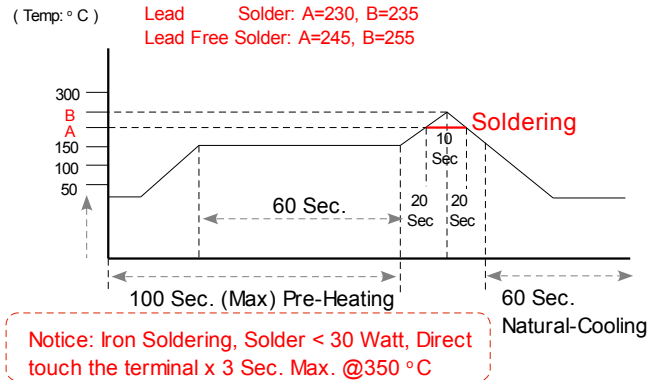
- Equipment**
- 1.L – WK3260 LCR Meter
 - 2.RDC – Twintex TM8089A
 - 3.IDC – WK3260+3265B DC-Bias
 - 4.Dimension - Mitutoyo
 - 5.Temperature – TECPEL 305A

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 (uH)		DCR (m Ohm)		IDC (A)	
	(1 - 3)	(4 - 2)	(1 - 3)	(4 - 2)	(1 - 3)	(4 - 2)
GSDRH4-72P-1R2N	1.2 +/- 30%	1.2 +/- 30%	50.0 max.	50.0 max.	1.0 max.	1.0 max.

- Inductance Test Parameters : @ 100KHz / 0.3V
- IDC Base on L drop 20% max.
- Turns Ratio (1 - 3) : (4 - 2) = 1 : 1
- Winding : (1 - 3) = (4 - 2) = G1-P180 0.17 mm x 2P x 4.5Ts.

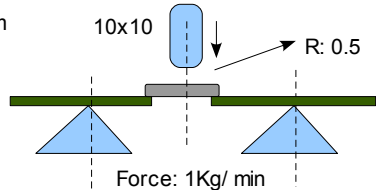
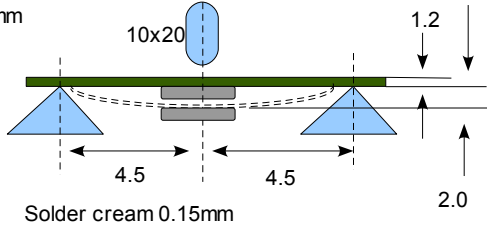
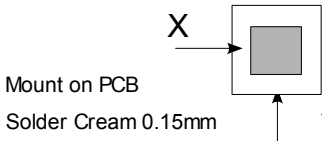
* Material List :

NO.	Item	Description	Supplier
1	Drum Core	R9H	SINCORES
2	Ring Core	R9H	SINCORES
3	Base	SC-0016-5 LCP + P2	ATC
4	Wire	Grade 1 P180	ELEKTRISOLA
5	Glue	S-9001A-6B (NH)	WELLS
		Ferrite Glue	ET



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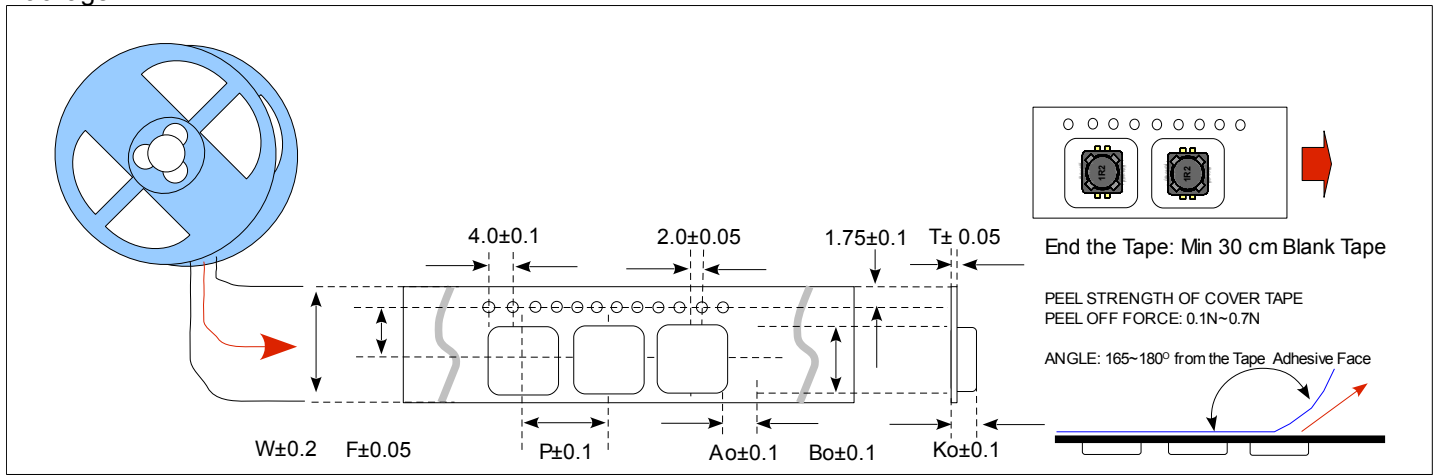
Reliability:

SN	Test Item	Test Condition	Specification	Sample Qty/pcs	Test Date	Result
1	Dimension 本體相關呎吋	Actual Size ...	Meet Spec	10	2007/07/12~ 2007/07/12	Pass
2	Thermal Shock (Temperature Cycle) 溫度循環試驗	Temperature:-40 °C / +125 ° C kept stabilized for 30 minutes each Cycle: 20 Cycles (power off)	Elec. no variation Appearance no deformation	10	2007/07/12~ 2007/07/13	Pass
3	Humidity Resistance 耐濕試驗	Humidity: 90%~ 95% RH Temperature: 40±2 ° C Test Time: 120±2 Hours	Elec. no variation Appearance no deformation	10	2007/07/12~ 2007/07/18	Pass
4	High Temperature 耐熱試驗	Temperature: 125±2 ° C Humidity: 20% Testing Time: 120±2 Hours	Elec. no variation Appearance no deformation	10	2007/07/12~ 2007/07/18	Pass
5	Low Temperature 耐寒試驗	Temperature: -40 ± 2 ° C Time: 120±2 Hours	Elec. no variation Appearance	10	2007/07/12~ 2007/07/18	Pass
6	Temperature and Humidity Cycle 溫/濕度循環試驗	Temperature: 125±2 ° C Humidity RH 90~95% Time: 24Hr x 8 Days	Elec. no variation Appearance no deformation	10	2007/07/12~ 2007/07/19	Pass
7	Vibration 振動性試驗	Frequency: 10Hz~55Hz Amplitude: 1.5mm Direction: X,Y,Z Time: 2 Hours each	Elec. no variation Appearance no deformation	10	2007/07/12~ 2007/07/12	Pass
8	Solderability 吃錫性試驗	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	2007/07/12~ 2007/07/12	Pass
9	IR Reflow Soldering 迴口 爐口 性試驗	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	2007/07/12~ 2007/07/12	Pass
10	Iron Solder Heat Resistance 手口 槍耐熱試驗	Solder Temp.: 350 ± 5 ° C Flux: Rosin Dip time: 5±1 seconds	Elec. no variation Appearance no deformation	10	2007/07/12~ 2007/07/12	Pass
11	Bending Strength 折斷力試驗	Unit: mm 	Elec. no variation Appearance no deformation	10	2007/07/12~ 2007/07/12	Pass
12	Flexure Strength 彎曲試驗	Unit: mm 	Elec. no variation Appearance no deformation	10	2007/07/12~ 2007/07/12	Pass
13	Terminal Strength 推/ 拉力試驗	 Mount on PCB Solder Cream 0.15mm Push 10N force to X,Y direction	Must no crack and damage	10	2007/07/12~ 2007/07/12	Pass
14	High-Voltage 高壓電擊試驗	100 V DC between core & winding	Elec. no variation Appearance no deformation	10	2007/07/12~ 2007/07/12	Pass
15	ORT:on going reliability test 負載電氣試驗	Base on Spec for approval	Elec. no variation Appearance no deformation	10	2007/07/12~ 2007/07/12	Pass

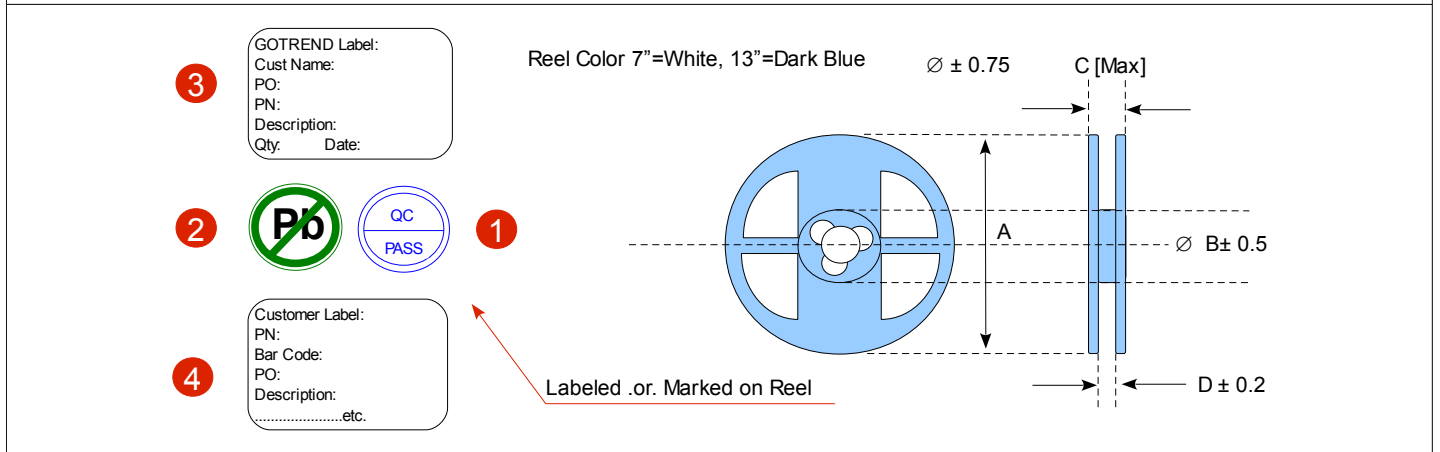


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Package :



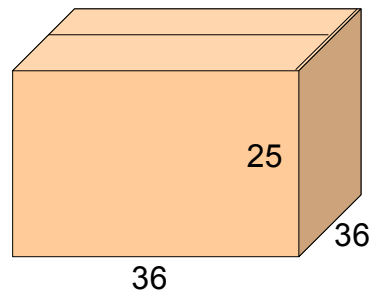
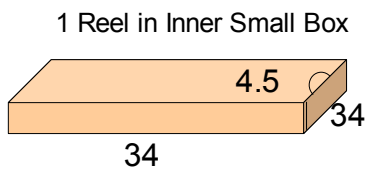
Size / mm	W	P	Ao	Bo	Ko	T	F
GSDRH4-72	16	12	7.7	9.2	3.0	0.35	7.5



Size / mm	A	B	C	D	Reel Size	Qty / Reel
GSDRH4-72	330	100	20.9	16.5	13"	1,800

Unit: [cm]

5 Inner Small Box in Outer Large Box





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COMPONENT TEST REPORT

REPORT INFORMATION		TEST EQUIPMENT			
CUSTOMER		L	CHEN-HWA 1061		
PART NO.	GSDRH4-72P-1R2N	RDC	CHEN-HWA 1061		
DESCRIPTION	Dual Winding Inductor	IDC	CHEN-HWA 1061A+1320		
TEST DATE	2010.12.03	SRF	NONE		
REPORT NO.	20101203R01	Q	NONE		
Test Temperature	28°C	DIMENSION	Mitutoyo		
Test Humidity	65%	SOLDERING	Kanebo		
Test Result....					
DIMENSION	ELEC.	SOLDERING	PIN/TERMINAL	MARKING	
PASS	PASS	PASS	PASS	NONE	
NO.	L(1-3) @100KHz / 0.3V 1.2 uH +/- 30%	L(2-4) @100KHz / 0.3V 1.2 uH +/- 30%	RDC(1-3) 50.0 m Ohm max.	RDC(2-4) 50.0 m Ohm max.	IDC @L drop 80% max. 1.0 A
1	1.11	1.06	27.50	26.70	ok
2	1.11	1.09	27.10	25.80	ok
3	1.06	1.05	26.10	23.70	ok
4	1.09	1.07	27.80	23.60	ok
5	1.08	1.06	26.90	25.30	ok
6	1.03	1.02	28.40	25.70	ok
7	1.11	1.09	27.10	26.70	ok
8	1.13	1.11	27.40	27.40	ok
9	1.06	1.04	26.10	26.60	ok
10	1.09	1.07	27.00	26.00	ok
AVG.	1.087	1.066	27.140	25.750	
R	0.10	0.09	2.30	2.10	