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|---|----------------------|----------------------|--------------|---------------------------------|
|  | Product Series Code: | GSDRH4 | Brand: | GOTREND |
| | File Version: | GSDRH4-74P-430M-V1R1 | Editor: | Teddy |
| | Established Date: | 2012/05/22 | Description: | Dual Winding Shielding Inductor |
| | Latest Edit Date: | 2014/09/18 | Pages: | 1 / 5 |

Version Information:

| SN | Date | Version Code | Modify Description | Editor |
|----|------------|--------------|--------------------|--------|
| 1 | 2012/05/22 | 1R0 | Original build | Teddy |
| 2 | 2014/09/18 | 1R1 | Update dimensions | Teddy |
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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 |
|------------|-------------------------------|-------------------------|--------------------|--------------------|----------------------------------|----------------------------------|------------------------------|--------------------|
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★ Important Declaration 重要聲明:

Human Life Declaration: If any application in/on human life about device like Aircraft / Medical Equipment / Automobile ...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,車用...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:**

- * Fit for power line & signal line circuit
- * To help you go pass the CE/FCC standard.
- * Good in EMI and fit for large current application
- * MB / NB / IPC / LCD Monitor / STB / Hub / Switch...etc.

*** 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 |

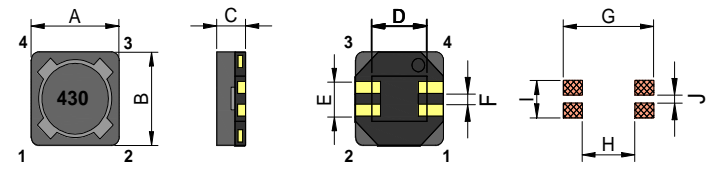
*** Part No. Example:**

| | | | | | | | |
|----|--------|---|----|---|---|-----|---|
| PN | GSDRH4 | - | 74 | P | - | 430 | M |
| ID | 1 | 2 | 3 | 4 | 5 | | |

1 GOTREND Series Code
 2 Dimension Code: 74 = (L) 7.4 x (W) 7.4 x (H) 4.5 mm
 3 RoHS Compliant
 4 Inductance : 430 = 43uH
 5 Tolerance : M = 20%

*** Dimensions: [mm]** *Base replaceable without notice!*

Front View Side View Bottom View Recommend Pad Layout



| Size Code | A (Max) | B (Max) | C (Max) | D (Ref.) | E (+/-0.3) | F (+/-0.5) |
|-----------|----------|----------|----------|----------|------------|------------|
| 74 | 7.80 | 7.80 | 4.5 | 4.1 | 2.7 | 1.1 |
| | G (Ref.) | H (Ref.) | I (Ref.) | J (Ref.) | | |
| | 7.2 | 3.9 | 2.9 | 0.9 | | |

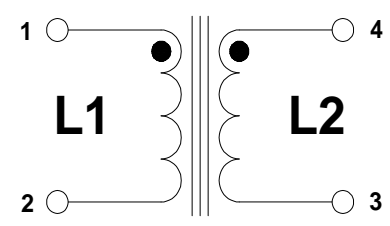
*** Operating & Storage Condition:**

- 1.Storage Condition -40 ~ +125 ° 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)

*** Schematic:**

Attention & Caution:

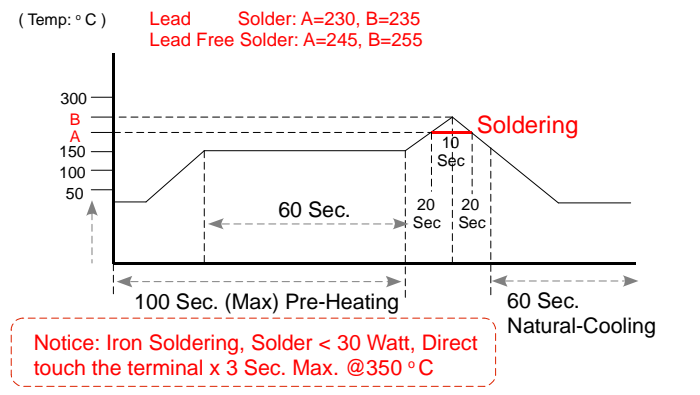
- * Keep out of splashing water or salt water
- * Toxic Gas (Hydrogen sulfide, Sulfurous acid, Chlorine, Ammonia)
- * Vibrations or shocks which exceed the specified condition
- * Dew condense
- * Please be careful for the stress to this product by board flexure or something after the mounting.




*** 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**



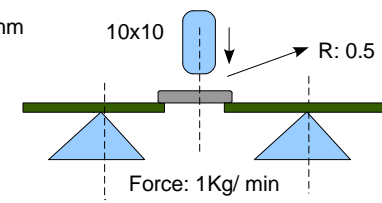
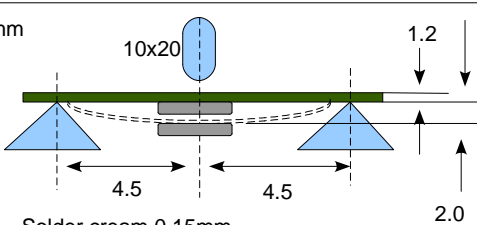
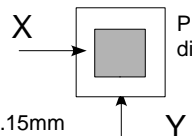
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| GOTREND PN | Inductance (uH) | | DCR (m Ohm) | | IDC (A) | |
|-----------------|----------------------|------------|------------------|------------|--------------|-----------|
| | (1 - 2) | (4 - 3) | (1 - 2) | (4 - 3) | (1 - 2) | (4 - 3) |
| GSDRH4-74P-430M | 43 +/- 20% | 43 +/- 20% | 400.0 max. | 400.0 max. | 0.4 max. | 0.4 max. |

- Inductance Test Parameters : @ 100KHz / 0.25V
- IDC Base on L drop 30% max. & Temp. rise up 40 deg.C max.
- Turns Ratio (1 - 2) : (4 - 3) = 1 : 1

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Reliability:

| SN | Test Item | Test Condition | Specification | Result |
|----|--|---|--|--------|
| 1 | Dimension 本體相關尺寸 | Actual Size ... | Meet Spec | Pass |
| 2 | Thermal Shock (Temperature Cycle) 溫度循環試驗 | Temperature:-40 °C / +165 ° C kept stabilized for 30 minutes each Cycle: 20 Cycles (power off) | Elec. no variation Appearance no deformation | 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 | Pass |
| 4 | High Temperature 耐熱試驗 | Temperature: 165±2 ° C Humidity: 20% Testing Time: 120±2 Hours | Elec. no variation Appearance no deformation | Pass |
| 5 | Low Temperature 耐寒試驗 | Temperature: -40 ± 2 ° C Time: 120±2 Hours | Elec. no variation Appearance | Pass |
| 6 | Temperature and Humidity Cycle 溫/濕度循環試驗 | Temperature: 165±2 ° C Humidity RH 90~95% Time: 24Hr x 8 Days | Elec. no variation Appearance no deformation | 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 | 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 | Pass |
| 9 | IR Reflow Soldering 迴焊爐焊性試驗 | 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 | Pass |
| 10 | Iron Solder Heat Resistance 手焊槍耐熱試驗 | Solder Temp.: 350 ± 5 ° C Flux: Rosin Dip time: 5±1 seconds | Elec. no variation Appearance no deformation | Pass |
| 11 | Bending Strength 折斷力試驗 | Unit: mm  | Elec. no variation Appearance no deformation | Pass |
| 12 | Flexure Strength 彎曲試驗 | Unit: mm  | Elec. no variation Appearance no deformation | 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 | Pass |
| 14 | High-Voltage 高壓電擊試驗 | 100 V DC between core & winding | Elec. no variation Appearance no deformation | Pass |
| 15 | ORT:on going reliability test 負載電氣試驗 | Base on Spec for approval | Elec. no variation Appearance no deformation | Pass |