

Product Series Code:	<b>GNR</b>	Brand:	<b>GOTREND</b>
File Version:	<b>GNR-V7R0</b>	Editor:	<b>Teddy</b>
Established Date:	<b>2009.08.19</b>	Description:	<b>SMD Shielded Power Inductor</b>
Latest Edit Date:	<b>2016.05.16</b>	Pages:	<b>1 / 20</b>

**Version Information :**

SN	Date	Version Code	Modify Description	Editor
29	2012.01.05	V3R8	Add GNR5020P-2R0N	Teddy
30	2012.02.02	V3R9	Add GNR4018P-1R2	Lucifer
31	2012.03.07	V4R0	Add GNR6020P-330M	Lucifer
32	2012.03.27	V4R1	Add GNR6045P-3R3M / GNR6045P-6R8M	Lucifer
33	2012.06.29	V4R2	Add GNR5020P-330M	Lucifer
34	2012.07.23	V4R3	Add GNR4018P-1R0N	Lucifer
35	2012.10.05	V4R4	Add GNR2510P SERIES	Teddy
36	2012.11.14	V4R5	Add GNR2512PL SERIES	Teddy
37	2013.02.23	V4R6	Add Human Life Declaration : Automobile	Teddy
38	2013.04.09	V4R7	Add GNR5014P-1R0M / GNR5014P-1R5M	Lucifer
39	2013.04.17	V4R8	Add GNR5020P-R68N	Teddy
40	2013.04.25	V4R9	Add GNR5040P SERIES	Teddy
41	2013.05.16	V5R0	Add GNR3012P / GNR6040P SERIES	Teddy
42	2013.05.28	V5R1	Add GNR8040P-2R2N / 3R3N	Teddy
43	2013.08.01	V5R2	Add GNR2512PA / GNR2512PE SERIES	Teddy
44	2013.08.14	V5R3	Add GNR6040P-2R2M	Teddy
45	2013.09.23	V5R4	Add GNR2512PL-220M / GNR4020P-1R2N / GNR4018PL SERIES	Teddy
46	2013.10.01	V5R5	Add GNR2510PM / GNR2512PM / GNR3010PM / GNR3015PM / GNR4018PM / GNR6045PM SERIES	Teddy
46	2013.11.02	V5R6	Add GNR4020P-4R7M	Teddy
47	2014.01.02	V5R7	Add GNR6020P-6R8M	Teddy
48	2014.02.20	V5R8	Add GNR3012PM / GNR4012PM SERIES	Teddy
49	2014.03.21	V5R9	Add GNR3012PC / 3015PC SERIES	Teddy
50	2014.07.11	V6R0	Add GNR4010P ~ GNR8040P External	Teddy
51	2014.10.30	V6R1	Add GNR5014 / 5020 / 5040 Dimension A & B = 5.2 mm max.	Teddy
52	2015.01.16	V6R2	Add GNR2512PL-6R8M	Teddy
53	2015.02.25	V6R3	Update GNR2512P SERIES Dimensios	Teddy
54	2015.05.07	V6R4	Add GNR6045P-6R8M	Teddy
55	2015.08.18	V6R5	Add GNR2512PL-100M	Teddy
56	2015.09.16	V6R6	Add GNR2512PL-8R2M	Teddy
57	2015.09.25	V6R7	Add GNR2512PA-6R8M / Del GNR2512PE	Teddy
58	2015.10.27	V6R8	Update GNR4012PM SERIES	Teddy
59	2016.05.16	V7R0	Update GNR3015PM Marking	Teddy

**Custom-Made Design Specification :**

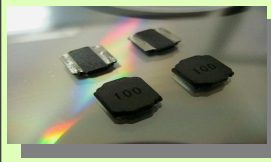
GOTREND PN	Inductance (uH)	L-Tolerance	RDC ( m Ohm ) Typ.	RDC ( m Ohm ) Max.	Isat ( mA ) Typ.	Irms ( mA ) Typ.

**★ 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](mailto:service@gotrend.com.tw)



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Established Date:	<b>2009.08.19</b>	Description:	<b>SMD Shielded Power Inductor</b>
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**\* Features & Application :**

1. Power supply PWM circuit input / output inductor
2. Power line noise suppression
3. DC-DC Converter
4. To help you go pass CE/FCC standard
5. TFT/ WiFi/ MobilePhone/ MP3/ PDA....etc. Application
6. Low Profile for all compact design

**\* Product Identify :**

Pin Foot	EMI	Color	Made In
<b>SMD</b>	<b>shield</b>	<b>Black</b>	<b>China / Taiwan</b>

**RoHS Compliant – SGS Test Report**

Pb	Cd	Hg	Cr+6	PBB	PBDE
<b>&lt;1000ppm</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>

**\* Part No. Example :**

PN	GNR	3010	P [ ]	- 6R8	M [ ]		
ID	1	2	3	4	5	6	7

- 1 GOTREND Series Code
- 2 Dimension Code : 3010 = ( L ) 3.1 x ( W ) 3.1 x ( H ) 1.0 mm
- 3 RoHS Compliance
- 4 [ ] : For GNR3010P / 3015P Marking series Code  
[ A / C / E / L / M ] : Material Code
- 5 Inductance : 6R8 = 6.8uH , Ex : 100 = 10uH , 101 = 100uH
- 6 Tolerance : M = 20% , N = 30%
- 7 [ S ] : For custom special design

**\* Operating & Storage Condition :**

- 1.Storage Condition -40 ~ +85 ° C / RH 65 ± 10%
- 2.Storage Life Time 6 Months @ 20 ° C / RH 65% (no seal off)
- 3.Operating Condition -40 ~ +105 ° C (Including self-temperature rise)

**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.

**\* External & Dimensions : [ mm ]**

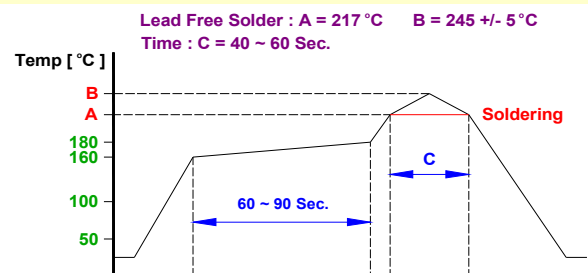
**( Measured before solder )**

Size Code	A (Max.)	B (Max.)	C (Max.)	D (Ref.)	E (Ref.)	F (Ref.)	G (Ref.)	H (Ref.)
2510	2.10	2.60	1.00	0.85	2.00	1.65	0.85	2.00
2512	2.20	2.70	1.20	0.85	2.10	1.70	0.90	2.10
3010	3.10	3.10	1.00	0.90	2.70	2.20	1.00	2.70
3012	3.10	3.10	1.20	0.90	2.70	2.20	1.00	2.70
3015	3.10	3.10	1.50	0.90	2.70	2.20	1.00	2.70
4010	4.20	4.20	1.00	1.10	3.50	2.80	1.20	3.70
4012	4.20	4.20	1.30	1.10	3.50	2.80	1.20	3.70
4018	4.20	4.20	1.80	1.10	3.50	2.80	1.20	3.70
4020	4.20	4.20	2.00	1.10	3.50	2.80	1.20	3.70
5014	5.20	5.20	1.40	1.00	4.80	3.80	1.40	5.00
5020	5.20	5.20	2.00	1.00	4.80	3.80	1.40	5.00
5040	5.20	5.20	4.00	1.00	4.80	3.80	1.40	5.00
6012	6.20	6.20	1.20	1.15	5.10	4.70	1.60	5.70
6020	6.20	6.20	2.00	1.15	5.10	4.70	1.60	5.70
6028	6.20	6.20	2.80	1.15	5.10	4.70	1.60	5.70
6040	6.20	6.20	4.00	1.15	5.10	4.70	1.60	5.70
6045	6.20	6.20	4.50	1.15	5.10	4.70	1.60	5.70
8040	8.20	8.20	4.20	1.60	6.30	5.60	1.80	7.50

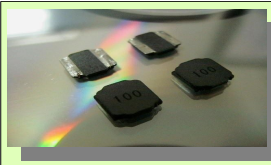
**\* Test Condition :**

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**



Notice : Iron Soldering , Solder < 30 Watt , Direct touch the terminal x 3 Sec. Max. @ 350 ° C



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**\* Electrical Characteristics :**

GOTREND PN	Inductance (uH)	L-Tolerance	RDC ( m Ohm ) Typ.	RDC (m Ohm ) Max.	Isat ( mA ) Typ.	Irms ( mA ) Typ.
GNR2510P-R47□	0.47	M,N	40.0	48.0	2500	2650
GNR2510P-R68□	0.68	M,N	52.0	64.0	2200	2200
GNR2510P-1R0□	1.00	M,N	70.0	85.0	1800	1900
GNR2510P-1R5□	1.50	M,N	107.0	128.0	1500	1500
GNR2510P-2R2□	2.20	M	150.0	185.0	1200	1200
GNR2510P-3R3□	3.30	M	225.0	270.0	1000	1000
GNR2510P-4R7□	4.70	M	330.0	398.0	880	820
GNR2510P-6R8□	6.80	M	443.0	532.0	740	710
GNR2510P-100□	10.00	M	712.0	854.0	590	550

■ Inductance test Freq. : 1MHz / 0.1V

■ L-Tolerance : N = 30% , M = 20%

■ The saturation current value ( Isat ) is the DC current value having inductance decrease 30%. ( at 20°C )

■ The temperature rise current value ( Irms ) DC current value having temperature increase up to 40°C. ( at 20°C )

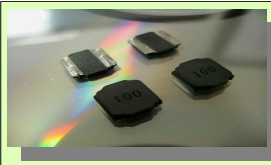
GOTREND PN	Inductance (uH)	L-Tolerance	RDC ( m Ohm ) Typ.	RDC (m Ohm ) Max.	Isat ( mA ) Typ.	Irms ( mA ) Typ.
GNR2510PM-R47□	0.47	N	47.0	56.0	4100	2700
GNR2510PM-R68□	0.68	N	47.0	56.0	2900	2700
GNR2510PM-1R0□	1.00	N	65.0	78.0	2550	2300
GNR2510PM-1R5□	1.50	M	115.0	138.0	2200	1850
GNR2510PM-2R2□	2.20	M	155.0	186.0	1700	1650
GNR2510PM-3R3□	3.30	M	250.0	300.0	1300	1450
GNR2510PM-4R7□	4.70	M	380.0	456.0	1200	900
GNR2510PM-6R8□	6.80	M	450.0	540.0	1000	850
GNR2510PM-100□	10.00	M	550.0	660.0	900	700

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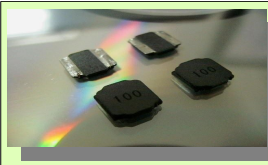
\* **Electrical Characteristics :**

GOTREND PN	Inductance (uH)	L-Tolerance	RDC ( m Ohm ) Typ.	RDC (m Ohm ) Max.	Isat ( mA ) Typ.	Irms ( mA ) Typ.
GNR2512P-R47□	0.47	M,N	47.0	56.0	3700	2200
GNR2512P-1R0□	1.00	M,N	73.0	88.0	2700	1800
GNR2512P-1R5□	1.50	M,N	105.0	126.0	2200	1500
GNR2512P-2R2□	2.20	M	129.0	155.0	2000	1300
GNR2512P-3R3□	3.30	M	227.0	272.0	1600	1000
GNR2512P-4R7□	4.70	M	338.0	406.0	1300	810
GNR2512P-5R6□	5.60	M	375.0	450.0	1150	720
GNR2512P-6R8□	6.80	M	510.0	612.0	1100	660
GNR2512P-100□	10.00	M	630.0	756.0	900	590

- Inductance test Freq. : 1MHz / 0.1V
- L-Tolerance : N = 30% , M = 20%
- The saturation current value ( Isat ) is the DC current value having inductance decrease 30%. ( at 20°C )
- The temperature rise current value ( Irms ) DC current value having temperature increase up to 40°C. ( at 20°C )

GOTREND PN	Inductance (uH)	L-Tolerance	RDC ( m Ohm ) Typ.	RDC (m Ohm ) Max.	Isat ( mA ) Typ.	Irms ( mA ) Typ.
GNR2512PA-R47□	0.47	M	29.0	39.0	4500	3900
GNR2512PA-R68□	0.68	M	36.0	48.0	4200	3400
GNR2512PA-1R0□	1.00	M	45.0	59.0	3450	3200
GNR2512PA-1R5□	1.50	M	60.0	72.0	2750	2600
GNR2512PA-2R2□	2.20	M	90.0	108.0	2450	2200
GNR2512PA-3R3□	3.30	M	120.0	140.0	2000	1800
GNR2512PA-4R7□	4.70	M	200.0	240.0	1700	1500
GNR2512PA-6R8□	6.80	M	300.0	360.0	1340	1100

- Inductance test Freq. : 1MHz / 0.1V
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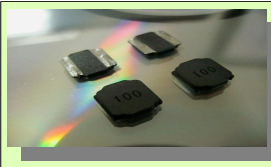
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GOTREND PN	Inductance (uH)	L-Tolerance	RDC ( m Ohm ) Typ.	RDC (m Ohm ) Max.	Isat ( mA ) Typ.	Irms ( mA ) Typ.
GNR2512PL-R24□	0.24	M	24.0	29.0	4280	3900
GNR2512PL-R47□	0.47	M	34.0	41.0	3200	3700
GNR2512PL-R68□	0.68	M	42.0	51.0	2750	3300
GNR2512PL-1R0□	1.00	M	50.0	60.0	2550	2600
GNR2512PL-1R5□	1.50	M	72.0	87.0	2100	2200
GNR2512PL-2R2□	2.20	M	96.0	116.0	2000	1850
GNR2512PL-3R3□	3.30	M	140.0	168.0	1450	1450
GNR2512PL-4R7□	4.70	M	210.0	252.0	1280	1200
GNR2512PL-6R8□	6.80	M	406.0	487.0	850	1000
GNR2512PL-8R2□	8.20	M	500.0	600.0	800	820
GNR2512PL-100□	10.00	M	450.0	540.0	720	750
GNR2512PL-220□	22.00	M	1138.0	1366.0	480	500

- Inductance test Freq. : 1MHz / 1.0V
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- The saturation current value ( Isat ) is the DC current value having inductance decrease 30%. ( at 20°C )
- The temperature rise current value ( Irms ) DC current value having temperature increase up to 40°C. ( at 20°C )

GOTREND PN	Inductance (uH)	L-Tolerance	RDC ( m Ohm ) Typ.	RDC (m Ohm ) Max.	Isat ( mA ) Typ.	Irms ( mA ) Typ.
GNR2512PM-R47□	0.47	N	30.0	35.0	4200	3300
GNR2512PM-R68□	0.68	N	40.0	48.0	3500	2800
GNR2512PM-1R0□	1.00	N	55.0	65.0	2900	2700
GNR2512PM-1R5□	1.50	M	70.0	84.0	2250	2100
GNR2512PM-2R2□	2.20	M	120.0	144.0	1950	1850
GNR2512PM-3R3□	3.30	M	145.0	174.0	1600	1450
GNR2512PM-4R7□	4.70	M	210.0	252.0	1250	1250
GNR2512PM-6R8□	6.80	M	300.0	360.0	1100	950
GNR2512PM-100□	10.00	M	500.0	600.0	900	800
GNR2512PM-220□	22.00	M	960.0	1150.0	600	600

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GNR3010P-1R0□	1.00	M,N	65.0	78.0	1950	1700
GNR3010P-1R2□	1.20	M,N	80.0	96.0	1900	1650
GNR3010P-1R5□	1.50	M,N	80.0	96.0	1600	1650
GNR3010P-1R8□	1.80	N	88.0	105.0	1520	1520
GNR3010P-2R2□	2.20	M	95.0	114.0	1450	1450
GNR3010P-3R3□	3.30	M	160.0	192.0	1050	1300
GNR3010P-4R7□	4.70	M	190.0	228.0	950	1100
GNR3010P-6R8□	6.80	M	300.0	360.0	760	850
GNR3010P-100□	10.00	M	450.0	540.0	610	720
GNR3010P-150□	15.00	M	740.0	888.0	480	560
GNR3010P-220□	22.00	M	980.0	1176.0	420	500
GNR3010P-330□	33.00	M	1550.0	1860.0	340	415
GNR3010P-470□	47.00	M	2000.0	2400.0	270	320

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■ The temperature rise current value ( Irms ) DC current value having temperature increase up to 40°C. ( at 20°C )

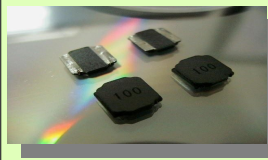
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GNR3010PM-1R0□	1.00	N	55.0	66.0	2300	2000
GNR3010PM-1R5□	1.50	N	65.0	78.0	1850	1700
GNR3010PM-2R2□	2.20	M	80.0	96.0	1550	1550
GNR3010PM-3R3□	3.30	M	115.0	138.0	1300	1250
GNR3010PM-4R7□	4.70	M	185.0	222.0	1150	1050
GNR3010PM-6R8□	6.80	M	250.0	300.0	850	850
GNR3010PM-8R2□	8.2	M	290.0	348.0	800	800
GNR3010PM-100□	10.00	M	400.0	480.0	700	700
GNR3010PM-150□	15.00	M	520.0	624.0	600	600
GNR3010PM-220□	22.00	M	800.0	960.0	500	500
GNR3010PM-330□	33	M	1000.0	1200.0	400	400

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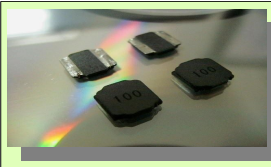
\* Electrical Characteristics :

GOTREND PN	Inductance (uH)	L-Tolerance	RDC ( m Ohm ) Typ.	RDC (m Ohm ) Max.	Isat ( mA ) Typ.	Irms ( mA ) Typ.
GNR3012P-R50□	0.50	M	35.0	42.0	2800	2800
GNR3012P-1R0□	1.00	M	43.0	52.0	2600	2500
GNR3012P-1R5□	1.50	M	65.0	78.0	2000	1900
GNR3012P-2R2□	2.20	M	82.0	98.0	1900	1700
GNR3012P-3R3□	3.30	M	100.0	120.0	1700	1500
GNR3012P-4R7□	4.70	M	105.0	126.0	1500	1200
GNR3012P-6R8□	6.80	M	170.0	204.0	1200	1000
GNR3012P-100□	10.00	M	250.0	300.0	1000	800
GNR3012P-150□	15.00	M	470.0	564.0	750	650
GNR3012P-220□	22.00	M	630.0	756.0	670	550
GNR3012P-330□	33.00	M	910.0	1092.0	550	460
GNR3012P-470□	47.00	M	1250.0	1500.0	450	350

- Inductance test Freq. : 1MHz / 0.1V
- L-Tolerance : M = 20%
- The saturation current value ( Isat ) is the DC current value having inductance decrease 30%. ( at 20°C )
- The temperature rise current value ( Irms ) DC current value having temperature increase up to 40°C. ( at 20°C )

GOTREND PN	Inductance (uH)	L-Tolerance	RDC ( m Ohm ) Typ.	RDC (m Ohm ) Max.	Isat ( mA ) Typ.	Irms ( mA ) Typ.
GNR3012PC-1R0□	1.00	N	42.0	50.4	2150	2000
GNR3012PC-1R5□	1.50	N	56.0	67.2	1700	1850
GNR3012PC-2R2□	2.20	M	80.0	96.0	1500	1700
GNR3012PC-3R3□	3.30	M	100.0	120.0	1200	1550
GNR3012PC-4R7□	4.70	M	130.0	156.0	1050	1300
GNR3012PC-6R8□	6.80	M	180.0	216.0	900	1050
GNR3012PC-100□	10.00	M	245.0	294.0	760	890
GNR3012PC-150□	15.00	M	386.0	463.2	620	740
GNR3012PC-220□	22.00	M	580.0	696.0	490	610

- Inductance test Freq. : 1MHz / 0.1V
- L-Tolerance : N = 30% , M = 20%
- The saturation current value ( Isat ) is the DC current value having inductance decrease 30%. ( at 20°C )
- The temperature rise current value ( Irms ) DC current value having temperature increase up to 40°C. ( at 20°C )



Product Series Code:	<b>GNR</b>	Brand:	<b>GOTREND</b>
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\* **Electrical Characteristics :**

GOTREND PN	Inductance (uH)	L-Tolerance	RDC ( m Ohm ) Typ.	RDC (m Ohm ) Max.	Isat ( mA ) Typ.	Irms ( mA ) Typ.
GNR3012PM-R82□	0.82	N	30.0	36.0	2800	3300
GNR3012PM-1R0□	1.00	N	30.0	36.0	2500	3300
GNR3012PM-1R2□	1.20	N	40.0	48.0	2150	2600
GNR3012PM-1R5□	1.50	N	50.0	60.0	2050	2300
GNR3012PM-2R2□	2.20	M	60.0	72.0	1650	2100
GNR3012PM-3R3□	3.30	M	90.0	108.0	1450	1700
GNR3012PM-4R7□	4.70	M	120.0	144.0	1250	1500
GNR3012PM-6R8□	6.80	M	170.0	204.0	1050	1250
GNR3012PM-100□	10.00	M	260.0	312.0	850	1000
GNR3012PM-150□	15.00	M	350.0	420.0	620	850
GNR3012PM-220□	22.00	M	490.0	588.0	600	750
GNR3012PM-330□	33.00	M	800.0	960.0	470	550
GNR3012PM-470□	47.00	M	1300.0	1560.0	450	450

■ Inductance test Freq. : 100KHz / 1.0V

■ L-Tolerance : N = 30% , M = 20%

■ The saturation current value ( Isat ) is the DC current value having inductance decrease 30%. ( at 20°C )

■ The temperature rise current value ( I rms ) DC current value having temperature increase up to 40°C. ( at 20°C )

GOTREND PN	Inductance (uH)	L-Tolerance	RDC ( m Ohm ) Typ.	RDC (m Ohm ) Max.	Isat ( mA ) Typ.	Irms ( mA ) Typ.
GNR3015P-1R0□	1.00	M,N	40.0	48.0	2350	2350
GNR3015P-1R5□	1.50	M,N	55.0	66.0	2000	2100
GNR3015P-1R8□	1.80	N	60.0	72.0	1830	1950
GNR3015P-2R2□	2.20	M	60.0	72.0	1650	1800
GNR3015P-3R3□	3.30	M	93.0	112.0	1400	1600
GNR3015P-4R7□	4.70	M	113.0	136.0	1200	1400
GNR3015P-5R6□	5.60	M	131.0	157.0	1100	1250
GNR3015P-6R8□	6.80	M	176.0	211.0	1050	1100
GNR3015P-100□	10.00	M	234.0	276.0	880	1000
GNR3015P-150□	15.00	M	352.0	422.0	680	800
GNR3015P-220□	22.00	M	510.0	622.0	580	600
GNR3015P-330□	33.00	M	799.0	959.0	460	500
GNR3015P-470□	47.00	M	1172.0	1406.0	380	400
GNR3015P-101□	100.00	M	2433.0	2920.0	270	290

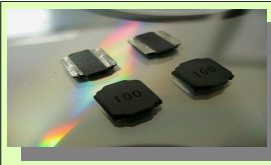
■ Inductance test Freq. : 1MHz / 0.1V

■ L-Tolerance : N = 30% , M = 20%

■ The saturation current value ( Isat ) is the DC current value having inductance decrease 30%. ( at 20°C )

■ The temperature rise current value ( I rms ) DC current value having temperature increase up to 40°C. ( at 20°C )





Product Series Code:	<b>GNR</b>	Brand:	<b>GOTREND</b>
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\* Electrical Characteristics :

GOTREND PN	Inductance (uH)	L-Tolerance	RDC ( m Ohm ) Typ.	RDC (m Ohm ) Max.	Isat ( mA ) Typ.	Irms ( mA ) Typ.
GNR3015PC-1R0□	1.00	N	30.0	36.0	2200	2200
GNR3015PC-1R5□	1.50	N	40.0	48.0	2000	2000
GNR3015PC-2R2□	2.20	M	60.0	72.0	1700	1700
GNR3015PC-3R3□	3.30	M	80.0	96.0	1400	1400
GNR3015PC-4R7□	4.70	M	120.0	144.0	1200	1200
GNR3015PC-6R8□	6.80	M	160.0	192.0	1000	1000
GNR3015PC-100□	10.00	M	220.0	264.0	750	700
GNR3015PC-150□	15.00	M	320.0	360.0	650	600
GNR3015PC-220□	22.00	M	460.0	552.0	550	500
GNR3015PC-330□	33.00	M	800.0	960.0	400	450
GNR3015PC-470□	47.00	M	1200.0	1440.0	350	300

■ Inductance test Freq. : 1MHz / 0.1V

■ L-Tolerance : N = 30% , M = 20%

■ The saturation current value ( Isat ) is the DC current value having inductance decrease 30%. ( at 20°C )

■ The temperature rise current value ( Irms ) DC current value having temperature increase up to 40°C. ( at 20°C )

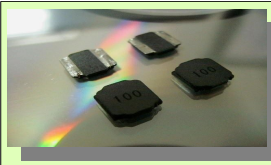
GOTREND PN	Inductance (uH)	L-Tolerance	RDC ( m Ohm ) Typ.	RDC (m Ohm ) Max.	Isat ( mA ) Typ.	Irms ( mA ) Typ.
GNR3015PM-1R0□	1.00	N	30.0	36.0	3100	3100
GNR3015PM-1R5□	1.50	N	45.0	54.0	2800	2600
GNR3015PM-2R2□	2.20	M	60.0	72.0	2250	2250
GNR3015PM-3R3□	3.30	M	80.0	96.0	1950	1950
GNR3015PM-4R7□	4.70	M	110.0	132.0	1600	1600
GNR3015PM-6R8□	6.80	M	150.0	180.0	1300	1400
GNR3015PM-100□	10.00	M	230.0	276.0	1100	1150
GNR3015PM-120□	12.00	M	250.0	300.0	1000	1100
GNR3015PM-150□	15.00	M	340.0	408.0	900	950
GNR3015PM-220□	22.00	M	440.0	528.0	700	850
GNR3015PM-330□	33.00	M	710.0	852.0	550	650
GNR3015PM-470□	47.00	M	1000.0	1200.0	500	550
GNR3015PM-680□	68.00	M	2000.0	2400.0	420	400

■ Inductance test Freq. : 1MHz / 0.1V

■ L-Tolerance : N = 30% , M = 20%

■ The saturation current value ( Isat ) is the DC current value having inductance decrease 30%. ( at 20°C )

■ The temperature rise current value ( Irms ) DC current value having temperature increase up to 40°C. ( at 20°C )



Product Series Code:	<b>GNR</b>	Brand:	<b>GOTREND</b>
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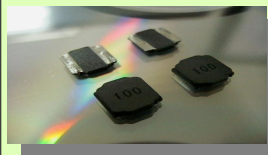
\* **Electrical Characteristics :**

GOTREND PN	Inductance (uH)	L-Tolerance	RDC ( m Ohm ) Typ.	RDC (m Ohm ) Max.	Isat ( mA ) Typ.	Irms ( mA ) Typ.
GNR4010P-1R0□	1.00	N	100.0	120.0	1800	1050
GNR4010P-2R2□	2.20	N	150.0	180.0	1150	890
GNR4010P-3R3□	3.30	M	180.0	216.0	1100	820
GNR4010P-4R7□	4.70	M	210.0	252.0	900	750
GNR4010P-6R8□	6.80	M	300.0	360.0	740	620
GNR4010P-100□	10.00	M	380.0	456.0	560	600
GNR4010P-150□	15.00	M	510.0	612.0	470	510
GNR4010P-220□	22.00	M	870.0	1044.0	360	400
GNR4010P-330□	33.00	M	1540.0	1848.0	280	300
GNR4010P-470□	47.00	M	1810.0	2172.0	240	280

- Inductance test Freq. : 100KHz / 0.1V
- L-Tolerance : N = 30% , M = 20%
- The saturation current value ( Isat ) is the DC current value having inductance decrease 30%. ( at 20°C )
- The temperature rise current value ( Irms ) DC current value having temperature increase up to 40°C. ( at 20°C )

GOTREND PN	Inductance (uH)	L-Tolerance	RDC ( m Ohm ) Typ.	RDC (m Ohm ) Max.	Isat ( mA ) Typ.	Irms ( mA ) Typ.
GNR4012PM-R82□	0.82	N	50.0	65.0	3650	2200
GNR4012PM-1R0□	1.00	N	50.0	65.0	3200	2200
GNR4012PM-1R5□	1.50	N	65.0	78.0	2500	2000
GNR4012PM-2R2□	2.20	N	87.0	104.0	2100	2100
GNR4012PM-3R3□	3.30	N	110.0	143.0	1950	1700
GNR4012PM-4R7□	4.70	M	140.0	182.0	1550	1500
GNR4012PM-5R6□	5.60	M	165.0	215.0	1600	1350
GNR4012PM-6R8□	6.80	M	198.0	257.0	1400	1300
GNR4012PM-100□	10.00	M	240.0	312.0	1050	1050
GNR4012PM-150□	15.00	M	380.0	494.0	900	900
GNR4012PM-220□	22.00	M	570.0	741.0	700	750
GNR4012PM-470□	47.00	M	1350.0	1760.0	450	450

- Inductance test Freq. : 100KHz / 1.0V
- L-Tolerance : N = 30% , M = 20%
- The saturation current value ( Isat ) is the DC current value having inductance decrease 30%. ( at 20°C )
- The temperature rise current value ( Irms ) DC current value having temperature increase up to 40°C. ( at 20°C )



Product Series Code:	<b>GNR</b>	Brand:	<b>GOTREND</b>
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\* Electrical Characteristics :

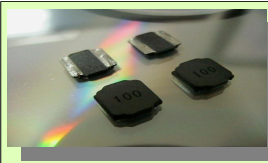
GOTREND PN	Inductance (uH)	L-Tolerance	RDC ( m Ohm ) Typ.	RDC (m Ohm ) Max.	Isat ( mA ) Typ.	Irms ( mA ) Typ.
GNR4018P-R56□	0.56	N	22.0	30.0	4500	2200
GNR4018P-1R0□	1.00	N	31.5	42.0	3700	1850
GNR4018P-1R2□	1.20	N	31.5	42.0	3700	1850
GNR4018P-1R5□	1.50	N	40.0	48.0	3500	1700
GNR4018P-2R2□	2.20	M	60.0	72.0	2700	1440
GNR4018P-3R3□	3.30	M	72.0	86.0	2200	1230
GNR4018P-4R7□	4.70	M	80.0	96.0	1700	1200
GNR4018P-6R8□	6.80	M	110.0	132.0	1450	1060
GNR4018P-100□	10.00	M	180.0	216.0	1200	840
GNR4018P-150□	15.00	M	250.0	300.0	940	650
GNR4018P-220□	22.00	M	360.0	432.0	800	590
GNR4018P-330□	33.00	M	530.0	636.0	650	490
GNR4018P-470□	47.00	M	650.0	780.0	570	420
GNR4018P-680□	68.00	M	1000.0	1200.0	470	320
GNR4018P-101□	100.00	M	1500.0	1800.0	400	270
GNR4018P-151□	150.00	M	2500.0	3000.0	310	220
GNR4018P-221□	220.00	M	4000.0	4800.0	270	170

■ Inductance test Freq. : 100KHz / 0.1V

■ L-Tolerance : N = 30% , M = 20%

■ The saturation current value ( Isat ) is the DC current value having inductance decrease 30%. ( at 20°C )

■ The temperature rise current value ( Irms ) DC current value having temperature increase up to 40°C. ( at 20°C )



Product Series Code:	<b>GNR</b>	Brand:	<b>GOTREND</b>
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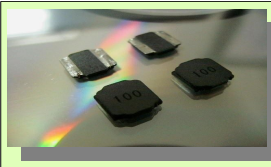
**\* Electrical Characteristics :**

GOTREND PN	Inductance (uH)	L-Tolerance	RDC ( m Ohm ) Typ.	RDC (m Ohm ) Max.	Isat ( mA ) Typ.	Irms ( mA ) Typ.
GNR4018PL-R56□	0.56	M	17.0	22.0	5500	5400
GNR4018PL-1R0□	1.00	M	20.0	25.0	3800	3800
GNR4018PL-1R2□	1.20	M	25.0	30.0	3600	3600
GNR4018PL-1R5□	1.50	M	33.0	40.0	3500	3200
GNR4018PL-1R8□	1.80	M	34.0	41.0	3100	3100
GNR4018PL-2R2□	2.20	M	35.0	45.0	3000	3000
GNR4018PL-3R3□	3.30	M	45.0	56.0	2400	2700
GNR4018PL-4R7□	4.70	M	70.0	90.0	2000	2200
GNR4018PL-6R8□	6.80	M	90.0	115.0	1700	1900
GNR4018PL-8R2□	8.20	M	105.0	132.0	1600	1500
GNR4018PL-100□	10.00	M	135.0	170.0	1550	1400
GNR4018PL-150□	15.00	M	185.0	222.0	1000	1250
GNR4018PL-220□	22.00	M	250.0	315.0	830	1200
GNR4018PL-330□	33.00	M	405.0	486.0	680	900
GNR4018PL-470□	47.00	M	495.0	594.0	560	800
GNR4018PL-680□	68.00	M	885.0	1062.0	480	580
GNR4018PL-101□	100.00	M	1545.0	1854.0	450	420
GNR4018PL-221□	220.00	M	3150.0	3780.0	330	300
GNR4018PL-331□	330.00	M	4200.0	5040.0	250	270

- Inductance test Freq. : 100KHz / 0.1V
- L-Tolerance : N = 30% , M = 20%
- The saturation current value ( Isat ) is the DC current value having inductance decrease 30%. ( at 20°C )
- The temperature rise current value ( Irms ) DC current value having temperature increase up to 40°C. ( at 20°C )

GOTREND PN	Inductance (uH)	L-Tolerance	RDC ( m Ohm ) Typ.	RDC (m Ohm ) Max.	Isat ( mA ) Typ.	Irms ( mA ) Typ.
GNR4018PM-1R0□	1.00	N	25.0	30.0	4850	3800
GNR4018PM-1R5□	1.50	N	30.0	36.0	4250	3200
GNR4018PM-2R2□	2.20	N	40.0	48.0	3400	2900
GNR4018PM-3R3□	3.30	M	50.0	60.0	3000	2500
GNR4018PM-4R7□	4.70	M	65.0	78.0	2300	2200
GNR4018PM-6R8□	6.80	M	90.0	108.0	1850	1900
GNR4018PM-100□	10.00	M	140.0	168.0	1550	1300
GNR4018PM-150□	15.00	M	190.0	228.0	1250	1200
GNR4018PM-220□	22.00	M	280.0	336.0	1100	1100
GNR4018PM-330□	33.00	M	400.0	480.0	900	850

- Inductance test Freq. : 100KHz / 0.1V
- L-Tolerance : N = 30% , M = 20%
- The saturation current value ( Isat ) is the DC current value having inductance decrease 30%. ( at 20°C )
- The temperature rise current value ( Irms ) DC current value having temperature increase up to 40°C. ( at 20°C )



Product Series Code:	<b>GNR</b>	Brand:	<b>GOTREND</b>
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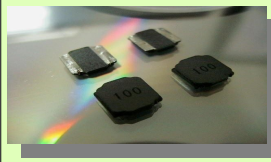
**\* Electrical Characteristics :**

GOTREND PN	Inductance (uH)	L-Tolerance	RDC ( m Ohm ) Typ.	RDC (m Ohm ) Max.	Isat ( mA ) Typ.	Irms ( mA ) Typ.
GNR4020P-1R0□	1.00	N	32.0	38.4	4100	2800
GNR4020P-1R2□	1.20	N	32.0	38.4	4000	2700
GNR4020P-2R2□	2.20	N	60.0	72.0	2800	2500
GNR4020P-3R3□	3.30	M,N	70.0	84.0	2200	2100
GNR4020P-4R7□	4.70	M,N	90.0	108.0	2000	1700
GNR4020P-6R8□	6.80	M	110.0	132.0	1600	1500
GNR4020P-100□	10.00	M	170.0	204.0	1400	1200
GNR4020P-150□	15.00	M	250.0	300.0	1000	1000
GNR4020P-220□	22.00	M	350.0	420.0	900	850
GNR4020P-330□	33.00	M	530.0	636.0	800	700
GNR4020P-470□	47.00	M	720.0	864.0	700	560
GNR4020P-680□	68.00	M	1000.0	1200.0	560	450
GNR4020P-101□	100.00	M	1500.0	1800.0	460	380
GNR4020P-151□	150.00	M	2500.0	3000.0	350	300
GNR4020P-221□	220.00	M	4000.0	4800.0	280	230

- Inductance test Freq. : 100KHz / 0.1V
- L-Tolerance : N = 30% , M = 20%
- The saturation current value ( Isat ) is the DC current value having inductance decrease 30%. ( at 20°C )
- The temperature rise current value ( Irms ) DC current value having temperature increase up to 40°C. ( at 20°C )

GOTREND PN	Inductance (uH)	L-Tolerance	RDC ( m Ohm ) Typ.	RDC (m Ohm ) Max.	Isat ( mA ) Typ.	Irms ( mA ) Typ.
GNR5014P-1R0□	1.00	N	45.0	54.0	3800	2400
GNR5014P-1R2□	1.20	N	45.0	54.0	3800	2400
GNR5014P-1R5□	1.50	M	55.0	71.5	3000	2100
GNR5014P-2R2□	2.20	N	65.0	78.0	2800	2000
GNR5014P-3R3□	3.30	N	80.0	96.0	2350	1700
GNR5014P-4R7□	4.70	N	100.0	120.0	2050	1400
GNR5014P-6R8□	6.80	M	150.0	180.0	1600	1200
GNR5014P-100□	10.00	M	200.0	240.0	1400	1050

- Inductance test Freq. : 100KHz / 0.1V
- L-Tolerance : N = 30% , M = 20%
- The saturation current value ( Isat ) is the DC current value having inductance decrease 30%. ( at 20°C )
- The temperature rise current value ( Irms ) DC current value having temperature increase up to 40°C. ( at 20°C )



Product Series Code:	<b>GNR</b>	Brand:	<b>GOTREND</b>
File Version:	GNR-V7R0	Editor:	Teddy
Established Date:	2009.08.19	Description:	SMD Shielded Power Inductor
Latest Edit Date:	2016.05.16	Pages:	14 / 20

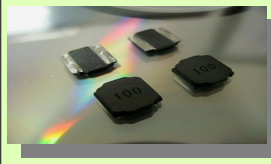
**\* Electrical Characteristics :**

GOTREND PN	Inductance (uH)	L-Tolerance	RDC ( m Ohm ) Typ.	RDC (m Ohm ) Max.	Isat ( mA ) Typ.	Irms ( mA ) Typ.
GNR5020P-R68□	0.68	N	14.2	18.2	5000	4000
GNR5020P-1R0□	1.00	N	18.5	21.0	4400	3600
GNR5020P-1R5□	1.50	N	22.5	26.0	3500	3200
GNR5020P-2R0□	2.00	N	27.0	35.0	3200	2900
GNR5020P-2R2□	2.20	N	27.0	35.0	3000	2900
GNR5020P-3R3□	3.30	M	40.0	48.0	2600	2400
GNR5020P-4R7□	4.70	M	55.0	60.0	2000	2000
GNR5020P-6R8□	6.80	M	80.0	90.0	1600	1650
GNR5020P-100□	10.00	M	105.0	120.0	1300	1450
GNR5020P-150□	15.00	M	148.0	165.0	1100	1200
GNR5020P-220□	22.00	M	220.0	260.0	900	1000
GNR5020P-330□	33.00	M	340.0	380.0	800	760
GNR5020P-470□	47.00	M	590.0	760.0	600	580

- Inductance test Freq. : 100KHz / 0.1V
- L-Tolerance : N = 30% , M = 20%
- The saturation current value ( Isat ) is the DC current value having inductance decrease 30%. ( at 20°C )
- The temperature rise current value ( I rms ) DC current value having temperature increase up to 40°C . ( at 20°C )

GOTREND PN	Inductance (uH)	L-Tolerance	RDC ( m Ohm ) Typ.	RDC (m Ohm ) Max.	Isat ( mA ) Typ.	Irms ( mA ) Typ.
GNR5040P-1R5□	1.50	N	20.0	26.0	6000	3600
GNR5040P-2R2□	2.20	N	22.0	28.6	4600	3500
GNR5040P-3R3□	3.30	M / N	27.0	35.1	3800	3300
GNR5040P-4R7□	4.70	M	29.0	37.7	3300	3100
GNR5040P-6R8□	6.80	M	49.0	63.7	2600	2300
GNR5040P-100□	10.00	M	56.0	72.8	2300	2100
GNR5040P-150□	15.00	M	80.0	104.0	2000	1800
GNR5040P-220□	22.00	M	126.0	163.8	1600	1400
GNR5040P-330□	33.00	M	180.0	234.0	1300	1200
GNR5040P-470□	47.00	M	310.0	403.0	1100	900

- Inductance test Freq. : 100KHz / 0.1V
- L-Tolerance : N = 30% , M = 20%
- The saturation current value ( Isat ) is the DC current value having inductance decrease 30%. ( at 20°C )
- The temperature rise current value ( I rms ) DC current value having temperature increase up to 40°C . ( at 20°C )



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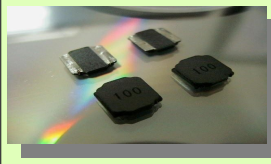
**\* Electrical Characteristics :**

GOTREND PN	Inductance (uH)	L-Tolerance	RDC ( m Ohm ) Typ.	RDC (m Ohm ) Max.	Isat ( mA ) Typ.	Irms ( mA ) Typ.
GNR6012P-1R0□	1.00	N	50.0	65.0	2800	2300
GNR6012P-1R5□	1.50	N	65.0	85.0	2400	2000
GNR6012P-2R2□	2.20	N	75.0	100.0	2200	1800
GNR6012P-2R5□	2.50	N	90.0	108.0	2100	1730
GNR6012P-3R3□	3.30	M	100.0	120.0	2000	1640
GNR6012P-4R0□	4.00	N	105.0	126.0	1800	1570
GNR6012P-4R7□	4.70	N	110.0	145.0	1600	1450
GNR6012P-5R3□	5.30	M	115.0	150.0	1500	1400
GNR6012P-6R8□	6.80	M	165.0	198.0	1300	1180
GNR6012P-100□	10.00	M	235.0	282.0	1000	1000
GNR6012P-150□	15.00	M	330.0	396.0	800	790
GNR6012P-220□	22.00	M	530.0	636.0	760	630
GNR6012P-330□	33.00	M	700.0	840.0	590	530
GNR6012P-470□	47.00	M	1050.0	1260.0	520	460
GNR6012P-680□	68.00	M	1350.0	1620.0	440	410
GNR6012P-101□	100.00	M	2180.0	2616.0	350	320

- Inductance test Freq. : 100KHz / 0.1V
- L-Tolerance : N = 30% , M = 20%
- The saturation current value ( Isat ) is the DC current value having inductance decrease 30%. ( at 20°C )
- The temperature rise current value ( I rms ) DC current value having temperature increase up to 40°C . ( at 20°C )

GOTREND PN	Inductance (uH)	L-Tolerance	RDC ( m Ohm ) Typ.	RDC (m Ohm ) Max.	Isat ( mA ) Typ.	Irms ( mA ) Typ.
GNR6020P-R80□	0.8	N	16.0	21.0	4500	5100
GNR6020P-1R0□	1.0	N	21.0	27.3	4200	4000
GNR6020P-1R5□	1.5	M / N	26.0	33.8	4000	3200
GNR6020P-2R2□	2.2	N	34.0	44.2	3200	2700
GNR6020P-3R3□	3.3	M	40.0	52.0	2800	2600
GNR6020P-4R7□	4.7	N	48.0	62.4	2400	2000
GNR6020P-6R8□	6.8	M	85.0	110.5	2000	1800
GNR6020P-100□	10.0	M	125.0	162.5	1700	1400
GNR6020P-220□	22.0	M	220.0	290.0	1050	900
GNR6020P-330□	33.0	M	260.0	450.0	900	800
GNR6020P-470□	47.0	M	430.0	560.0	850	650

- Inductance test Freq. : 100KHz / 0.1V
- L-Tolerance : N = 30% , M = 20%
- The saturation current value ( Isat ) is the DC current value having inductance decrease 30%. ( at 20°C )
- The temperature rise current value ( I rms ) DC current value having temperature increase up to 40°C . ( at 20°C )



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**\* Electrical Characteristics :**

GOTREND PN	Inductance (uH)	L-Tolerance	RDC ( m Ohm ) Typ.	RDC (m Ohm ) Max.	Isat ( mA ) Typ.	Irms ( mA ) Typ.
GNR6028P-R90□	0.90	N	13.0	16.9	6600	4600
GNR6028P-1R5□	1.50	N	16.0	20.8	5000	4200
GNR6028P-2R2□	2.20	N	20.0	26.0	4200	3700
GNR6028P-3R0□	3.00	N	23.0	29.9	3600	3400
GNR6028P-4R7□	4.70	M	31.0	40.3	2700	3000
GNR6028P-6R0□	6.00	M	40.0	52.0	2500	2500
GNR6028P-100□	10.00	M	65.0	84.5	1900	1900
GNR6028P-150□	15.00	M	95.0	123.5	1600	1800
GNR6028P-220□	22.00	M	135.0	175.5	1300	1400
GNR6028P-330□	33.00	M	220.0	286.0	1100	1100
GNR6028P-470□	47.00	M	300.0	390.0	950	920
GNR6028P-680□	68.00	M	420.0	546.0	760	770
GNR6028P-101□	100.00	M	600.0	780.0	620	660

■ Inductance test Freq. : 100KHz / 0.1V

■ L-Tolerance : N = 30% , M = 20%

■ The saturation current value ( Isat ) is the DC current value having inductance decrease 30%. ( at 20°C )

■ The temperature rise current value ( I rms ) DC current value having temperature increase up to 40°C. ( at 20°C )

GOTREND PN	Inductance (uH)	L-Tolerance	RDC ( m Ohm ) Typ.	RDC (m Ohm ) Max.	Isat ( mA ) Typ.	Irms ( mA ) Typ.
GNR6040P-2R2□	2.20	M	15.0	18.0	7000	5900
GNR6040P-4R7□	4.70	M	23.0	29.0	4700	4200
GNR6040P-6R8□	6.80	M	32.0	40.0	3700	3300
GNR6040P-8R2□	8.20	M	39.0	47.0	3300	2970
GNR6040P-100□	10.00	M	40.0	50.0	3200	2800
GNR6040P-120□	12.00	M	55.0	69.0	2800	2500
GNR6040P-150□	15.00	M	70.0	88.0	2500	2200
GNR6040P-220□	22.00	M	98.0	122.0	2000	1800
GNR6040P-330□	33.00	M	137.0	172.0	1700	1500
GNR6040P-470□	47.00	M	200.0	250.0	1400	1200
GNR6040P-560□	56.00	M	245.0	306.0	1300	1150
GNR6040P-680□	68.00	M	289.0	362.0	1200	1100
GNR6040P-101□	100.00	M	425.0	532.0	1000	900
GNR6040P-121□	120.00	M	484.0	605.0	920	820
GNR6040P-151□	150.00	M	580.0	725.0	840	750
GNR6040P-221□	220.00	M	834.0	1043.0	710	640
GNR6040P-331□	330.00	M	1270.0	1580.0	580	520

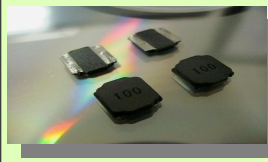
■ Inductance test Freq. : 100KHz / 0.1V

■ L-Tolerance : N = 30% , M = 20%

■ The saturation current value ( Isat ) is the DC current value having inductance decrease 30%. ( at 20°C )

■ The temperature rise current value ( I rms ) DC current value having temperature increase up to 40°C. ( at 20°C )





Product Series Code:	<b>GNR</b>	Brand:	<b>GOTREND</b>
File Version:	GNR-V7R0	Editor:	Teddy
Established Date:	2009.08.19	Description:	SMD Shielded Power Inductor
Latest Edit Date:	2016.05.16	Pages:	17 / 20

\* Electrical Characteristics :

GOTREND PN	Inductance (uH)	L-Tolerance	RDC ( m Ohm ) Typ.	RDC (m Ohm ) Max.	Isat ( mA ) Typ.	Irms ( mA ) Typ.
GNR6045P-R82□	0.82	N	8.0	10.4	10350	4500
GNR6045P-1R0□	1.00	N	14.0	18.2	8500	4200
GNR6045P-1R3□	1.30	N	16.0	20.8	8000	4000
GNR6045P-1R8□	1.80	N	18.0	23.4	7000	3700
GNR6045P-2R2□	2.20	M,N	21.0	27.3	6000	3500
GNR6045P-2R3□	2.30	N	21.0	27.3	6000	3500
GNR6045P-3R0□	3.00	N	24.0	31.2	5000	3200
GNR6045P-3R3□	3.30	N	24.0	31.2	4500	3200
GNR6045P-4R5□	4.50	M	31.0	40.3	4000	3000
GNR6045P-4R7□	4.70	M	31.0	40.3	4000	3000
GNR6045P-6R3□	6.30	M	38.0	49.4	3800	2800
GNR6045P-6R8□	6.80	M	36.0	46.9	3500	2600
GNR6045P-100□	10.00	M	47.0	61.1	3000	2500
GNR6045P-150□	15.00	M	77.0	100.1	2300	1900
GNR6045P-220□	22.00	M	115.0	149.5	1900	1500
GNR6045P-330□	33.00	M	145.0	188.5	1500	1400
GNR6045P-470□	47.00	M	220.0	286.0	1300	1100
GNR6045P-680□	68.00	M	330.0	429.0	1000	900
GNR6045P-101□	100.00	M	500.0	650.0	800	700

■ Inductance test Freq. : 100KHz / 0.1V

■ L-Tolerance : N = 30% , M = 20%

■ The saturation current value ( Isat ) is the DC current value having inductance decrease 30%. ( at 20°C )

■ The temperature rise current value ( I rms ) DC current value having temperature increase up to 40°C. ( at 20°C )

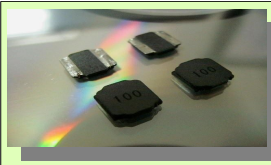
GOTREND PN	Inductance (uH)	L-Tolerance	RDC ( m Ohm ) Typ.	RDC (m Ohm ) Max.	Isat ( mA ) Typ.	Irms ( mA ) Typ.
GNR6045PM-1R0□	1.00	N	8.0	10.0	15000	6350
GNR6045PM-1R5□	1.50	N	10.0	13.0	11500	6050
GNR6045PM-2R2□	2.20	N	14.0	18.0	10500	5000
GNR6045PM-3R3□	3.30	N	18.0	24.0	9000	4400
GNR6045PM-4R7□	4.70	M	20.0	26.0	7500	4200
GNR6045PM-6R8□	6.80	M	31.0	40.0	6200	3300
GNR6045PM-100□	10.00	M	40.0	52.0	4800	3000
GNR6045PM-120□	12.00	M	50.0	65.0	4500	2750
GNR6045PM-150□	15.00	M	65.0	85.0	3800	2300
GNR6045PM-220□	22.00	M	89.0	116.0	3500	2000
GNR6045PM-330□	33.00	M	135.0	175.0	2600	1600
GNR6045PM-470□	47.00	M	200.0	260.0	2300	1300
GNR6045PM-680□	68.00	M	250.0	325.0	1800	1200

■ Inductance test Freq. : 100KHz / 0.1V

■ L-Tolerance : N = 30% , M = 20%

■ The saturation current value ( Isat ) is the DC current value having inductance decrease 30%. ( at 20°C )

■ The temperature rise current value ( I rms ) DC current value having temperature increase up to 40°C. ( at 20°C )



Product Series Code:	<b>GNR</b>	Brand:	<b>GOTREND</b>
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\* **Electrical Characteristics :**

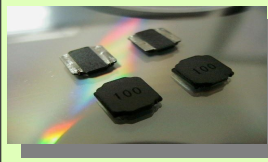
GOTREND PN	Inductance (uH)	L-Tolerance	RDC ( m Ohm ) Typ.	RDC (m Ohm ) Max.	Isat ( mA ) Typ.	Irms ( mA ) Typ.
GNR8040P-R90□	0.90	N	6.0	8.0	11000	7800
GNR8040P-1R4□	1.40	N	7.0	10.0	9000	7000
GNR8040P-1R8□	1.80	M	9.0	11.7	8000	6500
GNR8040P-2R0□	2.00	N	9.0	12.0	7400	6300
GNR8040P-2R2□	2.20	N	9.0	12.0	7400	6300
GNR8040P-2R5□	2.50	N	12.0	16.0	6400	5400
GNR8040P-3R3□	3.30	N	15.0	20.0	5300	4900
GNR8040P-3R6□	3.60	N	15.0	20.0	5300	4900
GNR8040P-4R7□	4.70	N	18.0	24.0	4700	4100
GNR8040P-6R8□	6.80	N	25.0	33.0	4000	3700
GNR8040P-100□	10.00	M	34.0	45.0	3400	3100
GNR8040P-150□	15.00	M	50.0	65.0	2700	2400
GNR8040P-220□	22.00	M	66.0	86.0	2200	2200
GNR8040P-330□	33.00	M	100.0	130.0	1900	1700
GNR8040P-470□	47.00	M	150.0	195.0	1500	1400
GNR8040P-680□	68.00	M	230.0	299.0	1200	1100
GNR8040P-101□	100.00	M	290.0	377.0	1000	1000
GNR8040P-151□	150.00	M	450.0	540.0	800	800

■ Inductance test Freq. : 100KHz / 0.1V

■ L-Tolerance : N = 30% , M = 20%

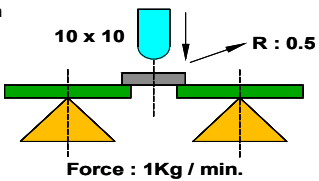
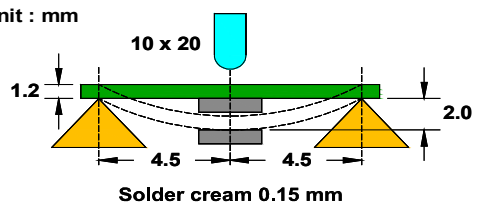
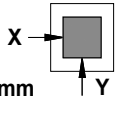
■ The saturation current value ( Isat ) is the DC current value having inductance decrease 30%. ( at 20°C )

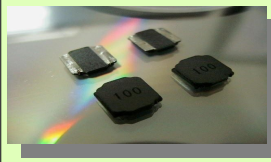
■ The temperature rise current value ( Irms ) DC current value having temperature increase up to 40°C. ( at 20°C )



Product Series Code:	<b>GNR</b>	Brand:	<b>GOTREND</b>
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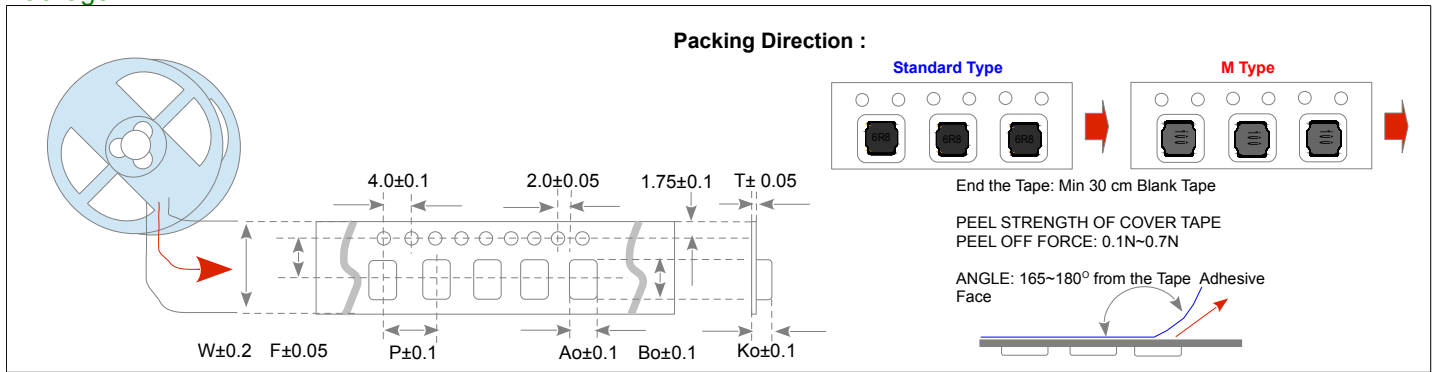
**Reliability :**

SN	Test Item	Test Condition	Specification	Sample Qty / pcs	Result												
1	Dimension 本體相關尺寸	Actual Size ...	Meet Spec	10	Pass												
2	Thermal Shock (Temperature Cycle) 溫度循環試驗	Temperature:-40 °C / +85 °C kept stabilized for 30 minutes each Cycle: 100 Cycles (power off)	Elec. no variation Appearance no deformation	10	Pass												
3	Humidity Resistance 耐濕試驗	Humidity: 90%~ 95% RH Temperature: 40±2 °C Test Time: 96±2 Hours	Elec. no variation Appearance no deformation	10	Pass												
4	High Temperature 耐熱試驗	Temperature: 85±2 °C Testing Time: 96±2 Hours	Elec. no variation Appearance no deformation	10	Pass												
5	Low Temperature 耐寒試驗	Temperature: -40 ± 2 °C Time: 96±2 Hours	Elec. no variation Appearance	10	Pass												
6	Temperature and Humidity Cycle 溫/濕度循環試驗	<table border="1"> <thead> <tr> <th>Temperature</th> <th>Humidity</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>25 °C</td> <td>90%~ 95% RH</td> <td>3.0 Hr</td> </tr> <tr> <td>55 °C</td> <td>95%~ 96% RH</td> <td>5.0 Hr</td> </tr> <tr> <td>25 °C</td> <td>90%~ 95% RH</td> <td>3.0 Hr</td> </tr> </tbody> </table> Cycle: 20 Cycles	Temperature	Humidity	Time	25 °C	90%~ 95% RH	3.0 Hr	55 °C	95%~ 96% RH	5.0 Hr	25 °C	90%~ 95% RH	3.0 Hr	Elec. no variation Appearance no deformation	10	Pass
Temperature	Humidity	Time															
25 °C	90%~ 95% RH	3.0 Hr															
55 °C	95%~ 96% RH	5.0 Hr															
25 °C	90%~ 95% RH	3.0 Hr															
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	Pass												
8	Solderability 焊錫性試驗	Go through real SMT IR-Reflow... The profile like our suggest profile. Preheat:160 ± 10 °C (90 sec) Peak:245±5 °C Peak Time: 50 Sec. / up 217 °C	Elec. no variation Appearance no deformation	10	Pass												
9	Soldering Heat Resistance 耐熱 焊性試驗	Preheat:160 ± 10 °C (90 sec) Solder:Sn/Ag/Cu(Pb Free) Solder Temp.: 260 ± 5 °C Time: 3±1 seconds	Elec. no variation Appearance no deformation	10	Pass												
10	Iron Solder Heat Resistance 手焊耐熱試驗	Solder Temp.: 350 ± 5 °C Flux: Rosin Time: 3±1 seconds	Elec. no variation Appearance no deformation	10	Pass												
11	Bending Strength 折斷力試驗	Unit : mm  Force : 1Kg / min.	Elec. no variation Appearance no deformation	10	Pass												
12	Flexure Strength 彎曲試驗	Unit : mm  Solder cream 0.15 mm	Elec. no variation Appearance no deformation	10	Pass												
13	Terminal Strength 推/ 拉力試驗	 Push 10N force to X , Y direction Mount on PCB Solder Cream 0.15 mm	Must no crack and damage	10	Pass												
14	High-Voltage 高壓電擊試驗	100 V DC between core & winding	Elec. no variation Appearance no deformation	10	Pass												
15	Load life 負載電性試驗	Temperature: 25±3 °C Load: Allowed DC Current Test Time: 96±2 Hours	There Should Be No Evidence Of Short Or Open Circle	10	Pass												

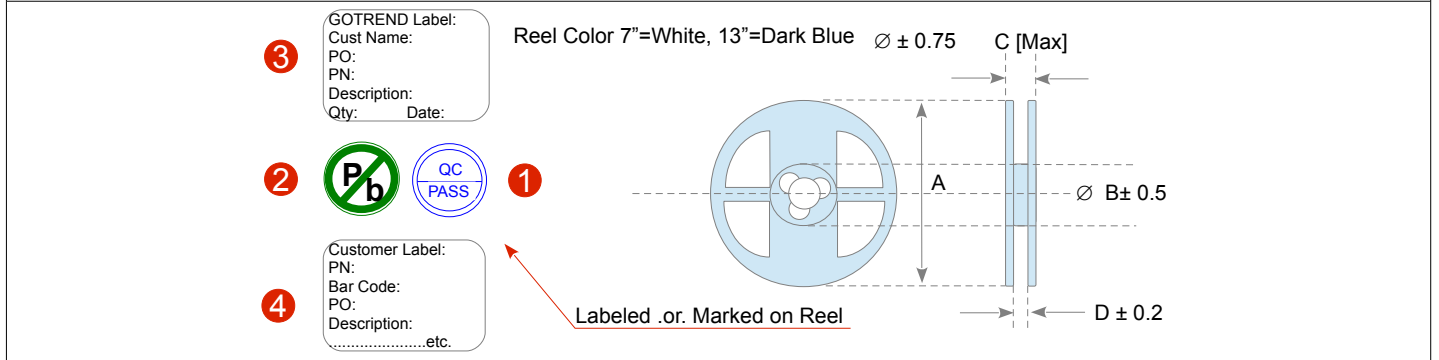


Product Series Code:	<b>GNR</b>	Brand:	<b>GOTREND</b>
File Version:	<b>GNR-V7R0</b>	Editor:	<b>Teddy</b>
Established Date:	<b>2009.08.19</b>	Description:	<b>SMD Shielded Power Inductor</b>
Latest Edit Date:	<b>2016.05.16</b>	Pages:	<b>20 / 20</b>

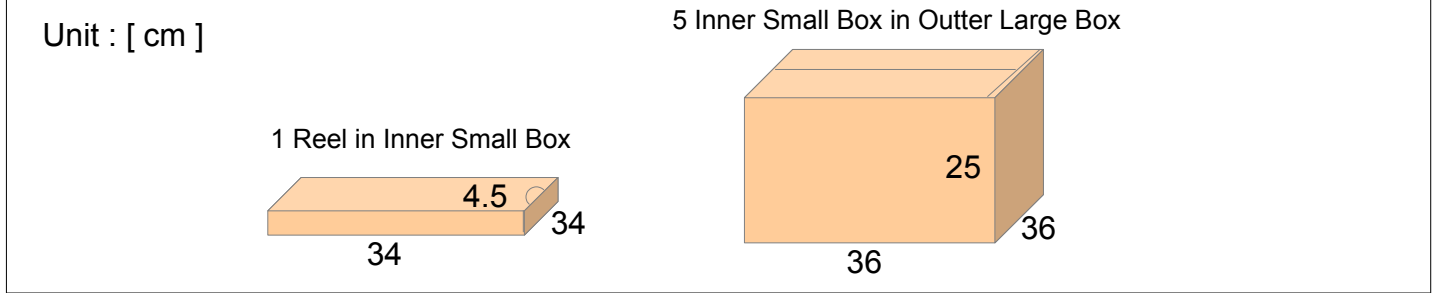
**Package :**



Size / mm	W	P	Ao	Bo	Ko	T	F
2510P	8	4	2.1	2.6	1.2	0.30	3.5
2512P	8	4	2.1	2.6	1.4	0.30	3.5
3010P	8	4	3.2	3.2	1.4	0.30	3.5
3012P	8	4	3.2	3.2	1.6	0.30	3.5
3015P	8	4	3.2	3.2	1.9	0.30	3.5
4010P	12	8	4.3	4.3	1.4	0.30	5.5
4012P	12	8	4.3	4.3	1.6	0.30	5.5
4018P	12	8	4.3	4.3	2.1	0.30	5.5
4020P	12	8	4.3	4.3	2.6	0.30	5.5
5014P	12	8	5.4	5.4	1.8	0.30	5.5
5020P	12	8	5.4	5.4	2.6	0.30	5.5
5040P	16	8	5.4	5.4	4.6	0.30	5.5
6012P	16	8	6.3	6.3	1.3	0.30	7.5
6020P	16	8	6.3	6.3	2.2	0.35	7.5
6028P	16	8	6.3	6.3	3.0	0.35	7.5
6040P	16	12	6.3	6.3	4.2	0.35	7.5
6045P	16	12	6.3	6.3	4.6	0.35	7.5
6045PM	16	8	6.3	6.3	4.6	0.35	7.5
8040P	16	12	8.3	8.3	4.3	0.35	7.5



Size / mm	A	B	C	D	Reel Size	Qty / Reel
2510P	180	60	14.5	10.0	7"	2000
2512P	180	60	14.5	10.0	7"	2000
3010P	180	60	14.5	10.0	7"	2000
3012P	180	60	14.5	10.0	7"	2000
3015P	180	60	14.5	10.0	7"	2000
4010P	330	100	18.0	13.0	13"	4500
4012P	330	100	18.0	13.0	13"	4500
4018P	330	100	18.0	13.0	13"	3000
4020P	330	100	18.0	13.0	13"	3000
5014P	330	100	20.9	16.5	13"	3000
5020P	330	100	20.9	16.5	13"	2500
5040P	330	100	20.9	16.5	13"	1500
6012P	330	100	20.9	16.5	13"	3000
6020P	330	100	20.9	16.5	13"	2500
6028P	330	100	20.9	16.5	13"	2000
6040P	330	100	20.9	16.5	13"	1000
6045P	330	100	20.9	16.5	13"	1000
6045PM	330	100	20.9	16.5	13"	1500
8040P	330	100	20.9	16.5	13"	1000



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