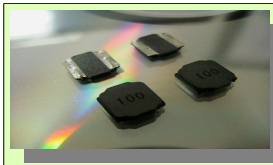
[illegible]

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

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!

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



Product Series Code:	GNR	Brand:	GOTREND
File Version:	GNR2512PT-SERIES-V1R0	Editor:	Teddy
Established Date:	2009.08.19	Description:	SMD Shielded Power Inductor
Latest Edit Date:	2018.07.05	Pages:	2 / 5

* 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 / Mobile Phone / MP3 / PDA etc. Application
6. Low Profile for all compact design

* Product Identify :

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

RoHS Compliant – SGS Test Report

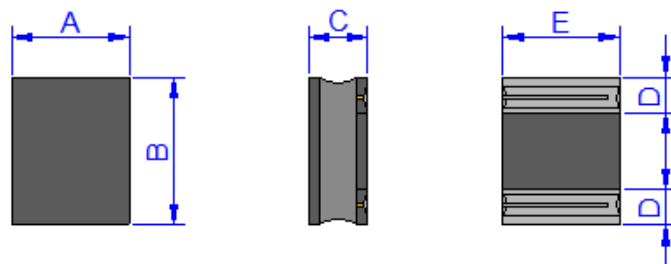
Pb	Cd	Hg	Cr+6	PBB	PBDE
<1000ppm	ND	ND	ND	ND	ND

* Part No. Example :

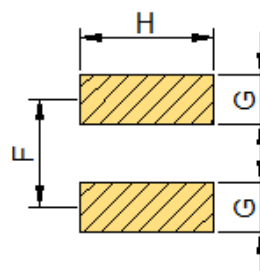
PN	GNR	2512	P	T	- 1R0	M
ID	1	2	3	4	5	6

- 1 GOTREND Series Code
- 2 Dimension Code : 2512 = (L) 2.5 x (W) 2.0 x (H) 1.2 mm
- 3 RoHS Compliance
- 4 [T] : Material Code
- 5 Inductance : 1R0 = 1.0uH , Ex : 100 = 10uH
- 6 Tolerance : M = 20% , N = 30%

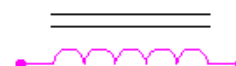
* External & Dimensions : [mm]



Recommend Pad Layout



Schematic



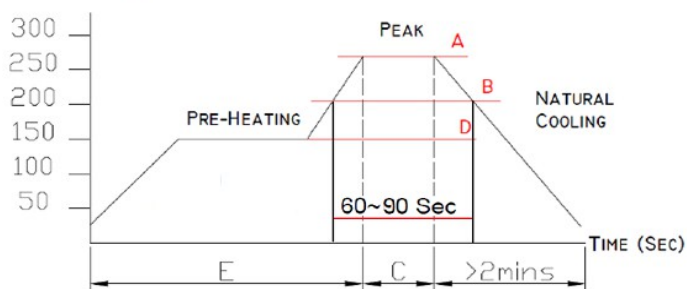
* Operating & Storage Condition :

- 1.Storage Condition -40 ~ +125 ° 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)

* Recommend IR Reflow Curve :

(Measured before solder)

TEMPERATURE (°C)



A	260°C
B	220°C
C	3~5Sec
D	150°C
E	60~240 Sec

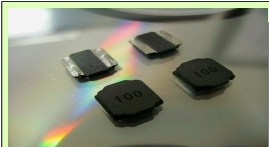
Size Code	A (+0.2/-0.1)	B (+0.2/-0.1)	C (Max.)	D (Ref.)	E (Ref.)	F (Ref.)	G (Ref.)	H (Ref.)
2512	2.00	2.50	1.20	0.85	2.00	1.70	0.90	2.10

* Test Condition :

Equipment	1.L – WK3260 LCR Meter 2.DCR – Twintex TM8089A 3.Isat / Irms – WK3260B + 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%

* 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.



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* Electrical Characteristics :

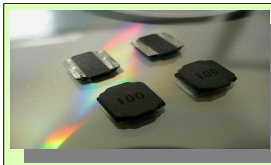
GOTREND PN	Inductance (uH)	L-Tolerance	RDC (m Ohm) +/-20%	Isat (mA) Typ.	Irms (mA) Typ.
GNR2512PT-R47□	0.47	N	28.0	4000	3700
GNR2512PT-R68□	0.68	M	36.0	3000	3300
GNR2512PT-1R0□	1.00	N	49.0	2700	2600
GNR2512PT-1R5□	1.50	N	63.0	2300	2200
GNR2512PT-2R2□	2.20	M	80.0	2150	1850
GNR2512PT-3R3□	3.30	M	120.0	1700	1450
GNR2512PT-4R7□	4.70	M	176.0	1500	1200
GNR2512PT-6R8□	6.80	M	250.0	1150	1000
GNR2512PT-100□	10.00	M	410.0	850	750
GNR2512PT-150□	15.00	M	540.0	630	600
GNR2512PT-220□	22.00	M	850.0	560	500

■ Inductance test Freq. : 1MHz / 0.1V

■ L-Tolerance : N = 30% , M = 20%

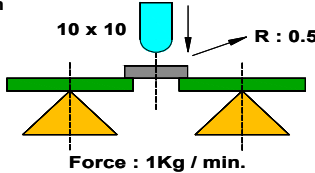
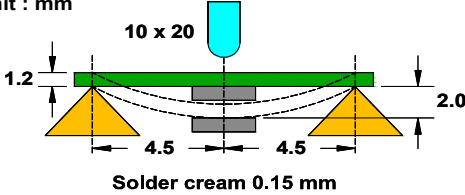
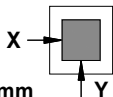
■ The saturation current value (Isat) is the DC current value having inductance decrease 30%. (at 20°C)

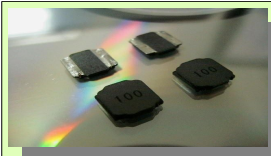
■ The temperature rise current value (Irms) DC current value having temperature increase up to 40°C. (at 20°C)



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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 / +125 °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: 125±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><tr><th>Temperature</th><th>Humidity</th><th>Time</th></tr><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></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 	Elec. no variation Appearance no deformation	10	Pass												
12	Flexure Strength 彎曲試驗	Unit : mm 	Elec. no variation Appearance no deformation	10	Pass												
13	Terminal Strength 推/ 拉力試驗	 Mount on PCB Solder Cream 0.15 mm Push 10N force to X , Y direction	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												



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Package :

Packing Direction :

End the Tape: Min 30 cm Blank Tape

PEEL STRENGTH OF COVER TAPE
PEEL OFF FORCE: 0.1N~0.7N

ANGLE: 165~180° from the Tape Adhesive Face

Size / mm	W	P	Ao	Bo	Ko	T	F
2512P	8	4	2.1	2.6	1.4	0.30	3.5

3 GOTREND Label:
Cust Name:
PO:
PN:
Description:
Qty: Date:

2

4 Customer Label:
PN:
Bar Code:
PO:
Description: etc.

Labeled .or. Marked on
Reel

Size / mm	A	B	C	D	Reel Size	Qty / Reel
2512P	180	60	14.5	10.0	7"	2000

Unit : [cm]

1 Reel in Inner Small Box

5 Inner Small Box in Outer Large Box