

Product Series : GNLE	Brand : GOTREND
File Version : GNLE-SERIES-V3R8	Editor : Qiuyi Wu
Established Date : 2009.07.20	Description : Ferrite Core Wound Inductor - LowProfile & IDC Enhanced
Latest Edit Date : 2023.06.09	Product Type : <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Customize

REMINDERS

- ◆ Product information in this catalog is subject to change without notice, and is for reference only. Therefore, please contact GOTREND Technology to check for the latest information before practical application or usage of the products.
- ◆ This catalog contains only typical specifications, please contact GOTREND Technology for further details if you can not find special components or information you need in this catalogue. Please also approve our product specifications or transact the approval sheet for product specifications before ordering.
- ◆ This catalogue only applies to products purchased through GOTREND Technolgy or its official agencies. This catalogue does not apply to products that are purchased through other third parties.
- ◆ Please read Attention and CAUTION note (for storage, operating, rating, soldering, mounting and handling) in this catalog to ensure product proper usage.
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- ◆ Information and data provided in the brochure can and do vary in different applications, and actual performance may vary over time.
- ◆ "Delivery Specification" illustrating precautions for the specifications and safety of each product listed in this catalog is available and we strongly recommend to provide these delivery specifications with customers that use these products.
- ◆ For exporting of product in this catalog, please take note it may be a restricted item according to the "Foreign Exchange and Foreign Trade Control Law". In such cases, it is necessary to acquire export permission in accordance to this law.
- ◆ Any reproduction or extraction of the contents in this catalog is prohibited without prior permission from GOTREND Technology.
- ◆ Products listed in this catalog are intended for general electronic device usage under normal operation and use condition including telecommunication equipment, home appliances, sports equipment AV equipment, industrial machine, office equipment etc. Please take note that our products are not designed, intended or authorized for use in below mentioned applications unless explicitly agreed in writing between the parties to avoid product failure that could result in situation where personal injury or death could occur.

- (1) Aerospace/Aviation equipment
- (2) Atomic energy-related equipment
- (3) Disaster prevention/crime prevention equipment
- (4) Electric heating apparatus, burning equipment
- (5) Medical equipment
- (6) Military equipment
- (7) Power-generation control equipment
- (8) Public information-processing equipment
- (9) Safety equipment
- (10) Seabed equipment
- (11) Transportation control equipment
- (12) Transportation equipment (cars, electric trains, ships, etc.)
- (13) Other applications that are not considered general-purpose applications

- ◆ Our manufacturing sites fully compliance with requirement regarding the quality management system in the automotive industry under the IATF 16949 standard. GOTREND Technology respect individual agreements with reference to customer requirements and customer specific requirements (CSR). We will like to emphasize that only requirements mutually agreed upon will in implemented in our Quality Management System taking into consideration that IATF 16949 may appear to support the acceptance of unilateral requirements. We will only legally bind to this individually agreed upon agreement under the IATF 16949 standard.

- ◆ The product itself is a powder metallurgy product, so the structure is relatively fragile, and it should not be used for products that are easy to fall. In addition, when this product is assembled, it should avoid collision with the tool or mechanism shell.



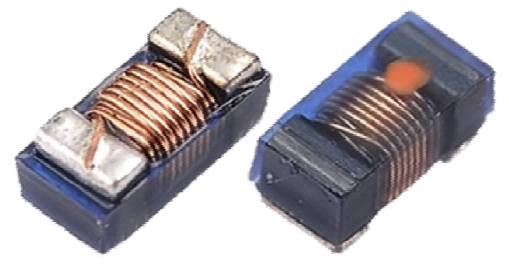
- ◆ It is not recommended to use hot air gun for disassembling of this product. When using of hot air gun to repair other parts, please also take note that long time or high temperature exposure of this product will also damage the inductance device. If you need to use the hot air gun to disassemble the product, it is recommended to adjust the hot air gun temperature to 380 deg.C±5 deg.C. The blower head of the hot air gun should be perpendicular and at least 1cm away from the product. After heating the product to the tin material melting point, use tweezers to remove the product from the PCB.



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Features & Application :

- * High-Current : IDC Enhanced Ex.:10uH- IDC=260mA (MAX)
- * Fit for power line & signal line circuit
- * To help you go pass the CE/FCC standard.
- * Mobile Device / Handheld Device / LowProfile Device / Panel



(Picture for reference only)

Part No. Example :

PN	:	GNLE	2012	P	S	-	6R8	J
-----		-----	-----	---	-----		----	----
ID	:	1	2	3	4		5	6
1	:	GOTREND Series : GNLE						
2	:	Size Code: 2012 [L-2.4 x W-1.6 mm]						
3	:	Pb Free Code: Pb free <1000ppm						
4	:	S= Singal / Q = High Q						
5	:	[L] Value : Inductance Ex: R56=0.56uH, 6R8=6.8uH						
6	:	Tolerance: J=5%, K=10%, M=20%						

Basic Information :

Made in	China
Pin Foot	SMD
Shielding	No
J-STD-020	MSL Level 1
RoHS	Compliant
REACH	Compliant
Halogen	Free

Operating & Storage Condition :

- * Operating Temp -40 ~ +125 deg.C (Including self - temperature rise)
- * Storage Temp 1. -10 ~ +45 deg.C , 50 ~ 60% RH (Product with taping)
2. -40 ~ +125 deg.C (On board)
- * Storage Life Time 6 Month (Less than 40 deg.C and 60% RH)

Attention & Caution :

- * Keep out of Splashing water or salt water
- * Avoid Toxic Gas (Hydrogen sulfide, Sulfurous acid, Chlorine, Ammonia)
- * Avoid Vibrations or shocks which exceed the specified condition
- * Avoid Dew condense
- * Avoid Layout near the edge of PCB
- * Avoid Over flexure after SMT mounting & PCBA



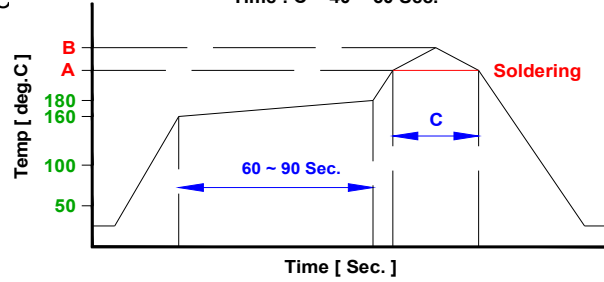
- * Pin foot or SMD pad solderability: Pb free type is best within 6 months after delivery
- * Humidity sensitive , IPC/JEDEC J-STD-020 MSL if over Level 1, recommend bake 30mins@150 degree before PCBA
- * Caution for human life relative applications : PLS contact & consult with GOTREND team in design stage.

Test Condition :

- * Equipment HP4284A , HP42841A - L , Q , DCR , IDC
HP8753D Network analyzer - SRF
- * Standard Atmosphere Conditions:
Ambient Temperature 20 ± 15 deg.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 deg.C
Humidity RH 75 ± 10%

Recommend IR Reflow Curve : GTX-IR-FILE001











Lead Free Solder : A = 217 deg.C , B = 245+/-5 deg.C
Time : C = 40 ~ 60 Sec.



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

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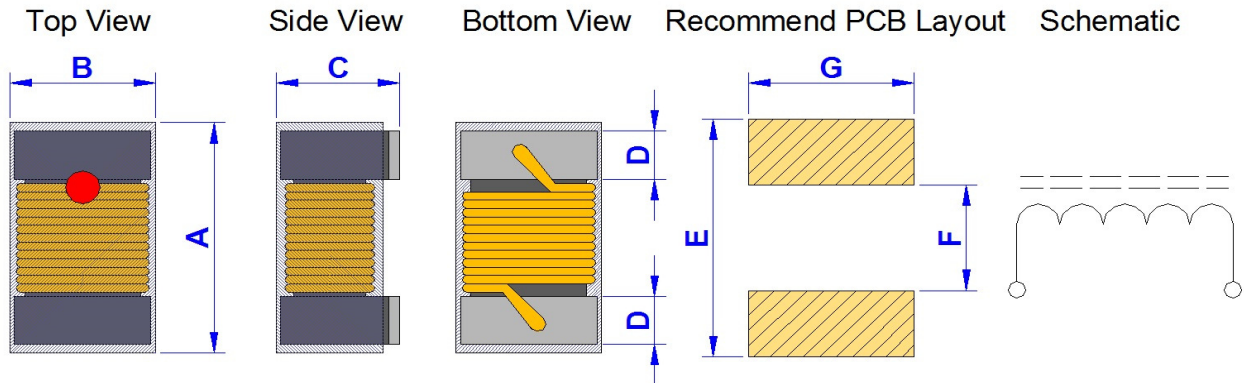
SMD Power Inductor - GNLE Series Type

Image	Part Name	A (mm)	B (mm)	C (mm)	Inductance Range (uH)	Q value	DCR (Ohm)	IDC (mA)	Page
	GNLE1610P	1.8	1.2	1.0	0.047  33.0	10.0-15.0	0.075-8.4	120.0-2200.0	5
	GNLE2012P	2.4	1.6	1.25	0.047  100.0	10.0	0.2-16.8	80.0-750.0	6
	GNLE2012PS	2.4	1.6	1.25	0.12  33.0	16.0-30.0	0.18-7.6	120.0-1500.0	7-8
	GNLE2520P	2.9	2.5	2.1	1.0  33.0	12.0	0.13-2.47	236.0-1000.0	9
	GNLE2520PS	2.9	2.5	2.1	0.18  100.0	8.0-30.0	0.3-19.6	200.0-960.0	10-11

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GNLE1610P-SERIES

Dimension [mm] :



Marking : The sense value represented by the color point please see the electrical specification.

Size	A(Max.)	B(Max.)	C(Max.)	D(+/-0.1)	E(Ref.)	F(Ref.)	G(Ref.)
1610	1.80	1.20	1.10	0.33	1.92	0.64	1.02

Electrical Characteristics :

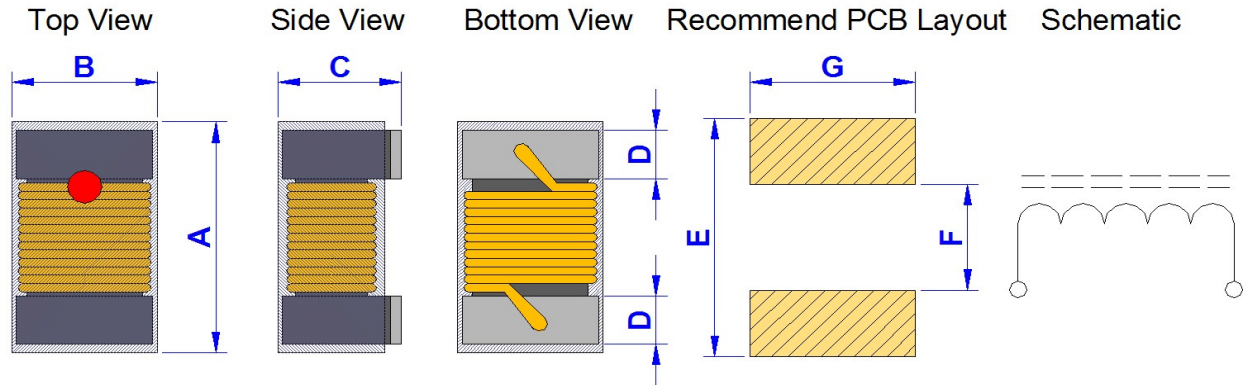
Part No.	L - Value (uH)	Available Tolerance	Q Value (Min.)	Test Freq. (MHz)	S.R.F (MHz) (Min.)	DCR (Ohm) (Max.)	IDC (mA) (Max.)	Color-Dot Marking
GNLE1610P- 47N □	0.047	J,K	10	7.9	2000.0	0.075	1800	White
GNLE1610P- R10 □	0.10	J,K	12	7.9	1150.0	0.130	2200	Black
GNLE1610P- R15 □	0.15	J,K	15	7.9	1050.0	0.150	1800	Brown
GNLE1610P- R22 □	0.22	J,K	15	7.9	900.0	0.300	1200	Red
GNLE1610P- R27 □	0.27	J,K	15	7.9	835.0	0.350	1800	Yellow
GNLE1610P- R33 □	0.33	J,K	15	7.9	725.0	0.460	1000	Orange
GNLE1610P- R39 □	0.39	J,K	15	7.9	680.0	0.450	1000	Blue
GNLE1610P- R47 □	0.47	J,K	15	7.9	640.0	0.430	1400	Black
GNLE1610P- R56 □	0.56	J,K	15	7.9	630.0	0.440	1400	Brown
GNLE1610P- R68 □	0.68	J,K	15	7.9	510.0	0.520	1340	Red
GNLE1610P- R78 □	0.78	J,K	15	7.9	465.0	0.630	1300	Orange
GNLE1610P- R82 □	0.82	J,K	15	7.9	460.0	0.690	1200	Yellow
GNLE1610P- 1R0 □	1.00	J,K	15	7.9	320.0	0.810	1100	Green
GNLE1610P- 1R2 □	1.20	J,K	15	7.9	270.0	0.870	1000	Blue
GNLE1610P- 1R5 □	1.50	J,K	15	7.9	230.0	0.960	920	Violet
GNLE1610P- 1R8 □	1.80	J,K	15	7.9	210.0	1.100	900	Gray
GNLE1610P- 2R2 □	2.20	J,K	15	7.9	115.0	1.200	740	White
GNLE1610P- 3R3 □	3.30	J,K	15	7.9	84.0	1.500	680	Brown
GNLE1610P- 3R9 □	3.90	J,K	15	7.9	75.0	1.500	600	Red
GNLE1610P- 4R7 □	4.70	J,K	15	7.9	67.0	2.100	580	Orange
GNLE1610P- 5R6 □	5.60	J,K	15	7.9	55.0	2.370	540	Yellow
GNLE1610P- 6R8 □	6.80	J,K	15	7.9	48.0	3.100	500	Green
GNLE1610P- 8R2 □	8.20	J,K	15	7.9	38.0	3.500	440	Violet
GNLE1610P- 100 □	10.00	J,K	12	2.5	32.0	4.460	400	Gray
GNLE1610P- 220 □	22.00	K,M	10	1.30	20.0	6.500	140	
GNLE1610P- 270 □	27.00	K,M	10	1.30	15.0	7.400	130	
GNLE1610P- 330 □	33.00	K,M	10	1.30	15.0	8.40	120	

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GNLE2012P-SERIES

Dimension [mm] :



Marking : The sense value represented by the color point please see the electrical specification.

Size	A(Max.)	B(Max.)	C(Max.)	D(+/-0.1)	E(Ref.)	F(Ref.)	G(Ref.)
2012	2.40	1.60	1.25	0.45	2.80	1.00	1.78

Electrical Characteristics :

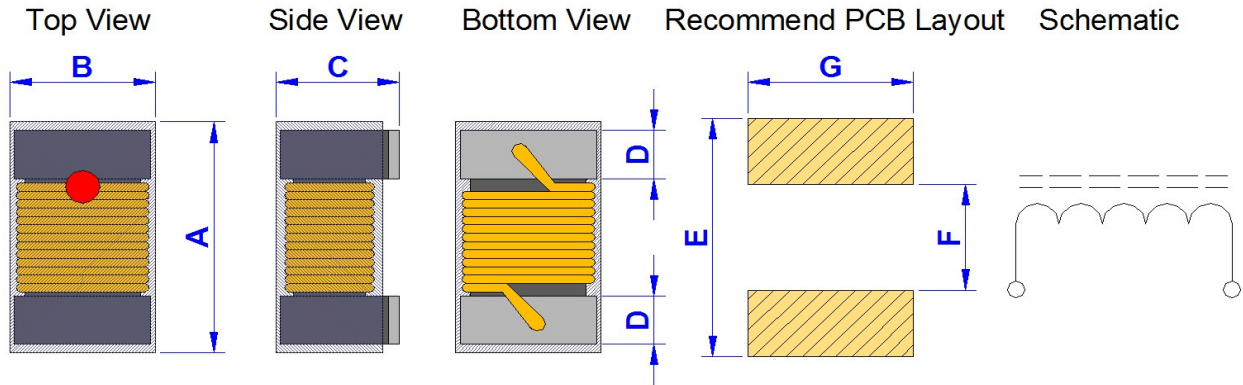
Part NO.	L - Value (uH)	Available Tolerance	Q Value (Min.)	Test Freq. (MHz)	S.R.F (MHz) (Min.)	DCR (Ohm) (Max.)	IDC (mA) (Max.)	Color-Dot Marking
GNLE2012P- R47 □	0.47	K,M	10	7.96	720.0	0.20	750	Yellow
GNLE2012P- R56 □	0.56	K,M	10	7.96	665.0	0.21	730	White
GNLE2012P- R68 □	0.68	K,M	10	7.96	565.0	0.28	670	Green
GNLE2012P- R82 □	0.82	K,M	10	7.96	545.0	0.31	650	Gray
GNLE2012P- 1R0 □	1.00	K,M	10	7.96	525.0	0.34	615	Black
GNLE2012P- 1R2 □	1.20	K,M	10	7.96	473.0	0.39	550	Blue
GNLE2012P- 1R5 □	1.50	K,M	10	7.96	300.0	0.45	520	Brown
GNLE2012P- 1R8 □	1.80	K,M	10	7.96	230.0	0.48	500	Brown
GNLE2012P- 2R2 □	2.20	K,M	10	7.96	215.0	0.67	420	Red
GNLE2012P- 2R7 □	2.70	K,M	10	7.96	185.0	0.74	410	Violet
GNLE2012P- 3R3 □	3.30	K,M	10	7.96	95.0	0.81	385	Orange
GNLE2012P- 3R9 □	3.90	K,M	10	7.96	57.0	0.88	372	Gray
GNLE2012P- 4R7 □	4.70	K,M	10	7.96	51.0	0.99	345	Yellow
GNLE2012P- 5R6 □	5.60	K,M	10	7.96	44.0	1.06	335	White
GNLE2012P- 6R8 □	6.80	K,M	10	7.96	39.0	1.21	315	Green
GNLE2012P- 8R2 □	8.20	K,M	10	7.96	33.0	1.33	295	Black
GNLE2012P- 100 □	10.00	K,M	10	2.52	30.0	1.79	260	Blue
GNLE2012P- 120 □	12.00	K,M	10	2.52	27.0	1.98	250	Brown
GNLE2012P- 150 □	15.00	K,M	10	2.52	22.0	2.68	215	Violet
GNLE2012P- 180 □	18.00	K,M	10	2.52	20.0	3.12	195	Red
GNLE2012P- 220 □	22.00	K,M	10	2.52	18.0	3.48	180	Gray
GNLE2012P- 270 □	27.00	K,M	10	2.52	16.0	3.84	170	
GNLE2012P- 330 □	33.00	K,M	10	2.52	15.0	4.34	145	White
GNLE2012P- 470 □	47.00	K,M	10	2.52	11.0	5.14	105	Black
GNLE2012P- 101 □	100.00	K,M	10	1	6.0	16.80	80	Brown

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GNLE2012PS-SERIES

Dimension [mm] :



Marking : The sense value represented by the color point please see the electrical specification.

Size	A(Max.)	B(Max.)	C(Max.)	D(+/-0.1)	E(Ref.)	F(Ref.)	G(Ref.)
2012	2.40	1.60	1.25	0.45	2.80	1.00	1.78

Electrical Characteristics :

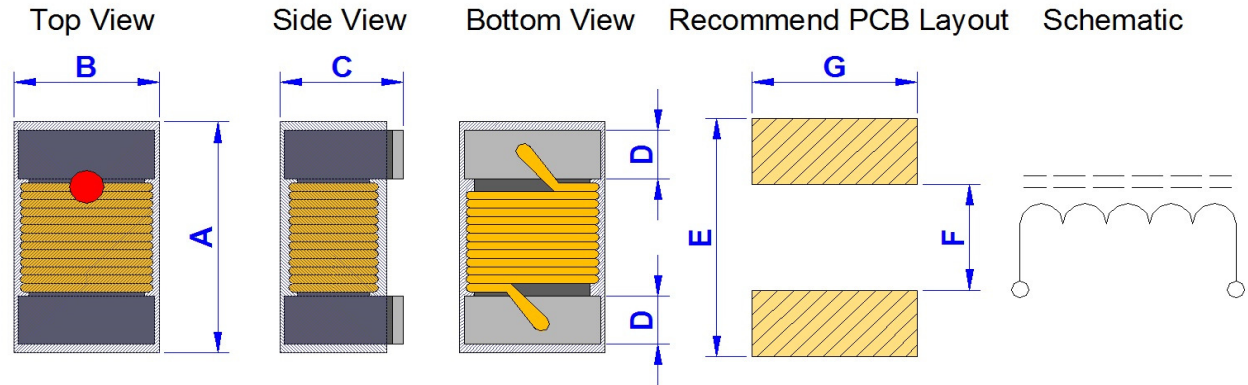
Part NO.	L - Value (uH)	Available Tolerance	Q Value (Min.)	Test Freq. (MHz)	S.R.F (MHz) (Min.)	DCR (Ohm) (Max.)	IDC (mA) (Max.)	Color-Dot Marking
GNLE2012PS-R12 <input type="checkbox"/>	0.12	J,K	25	25	1000.0	0.18	1500	Violet
GNLE2012PS-R15 <input type="checkbox"/>	0.15	J,K	25	25	1000.0	0.18	1400	Gray
GNLE2012PS-R18 <input type="checkbox"/>	0.18	J,K	30	25	1000.0	0.20	1400	Black
GNLE2012PS-R22 <input type="checkbox"/>	0.22	J,K	30	25	830.0	0.25	1350	Brown
GNLE2012PS-R27 <input type="checkbox"/>	0.27	J,K	30	25	800.0	0.38	1300	Red
GNLE2012PS-R33 <input type="checkbox"/>	0.33	J,K	30	25	750.0	0.35	1200	Orange
GNLE2012PS-R39 <input type="checkbox"/>	0.39	J,K	30	25	700.0	0.35	1160	Yellow
GNLE2012PS-R47 <input type="checkbox"/>	0.47	J,K	30	25	690.0	0.40	1100	Green
GNLE2012PS-R56 <input type="checkbox"/>	0.56	J,K	30	25	640.0	0.40	1040	Blue
GNLE2012PS-R62 <input type="checkbox"/>	0.62	J,K	30	25	640.0	0.45	980	Brown
GNLE2012PS-R68 <input type="checkbox"/>	0.68	J,K	30	25	510.0	0.50	900	Violet
GNLE2012PS-R82 <input type="checkbox"/>	0.82	J,K	30	25	500.0	0.50	900	Gray
GNLE2012PS-R91 <input type="checkbox"/>	0.91	J,K	30	25	500.0	0.55	900	Yellow
GNLE2012PS-1R0 <input type="checkbox"/>	1.00	J,K	20	7.9	470.0	0.60	840	White
GNLE2012PS-1R2 <input type="checkbox"/>	1.20	J,K	20	7.9	400.0	0.75	800	Black
GNLE2012PS-1R5 <input type="checkbox"/>	1.50	J,K	25	7.9	400.0	1.00	720	Brown
GNLE2012PS-1R8 <input type="checkbox"/>	1.80	J,K	25	7.9	230.0	1.00	660	Red
GNLE2012PS-2R2 <input type="checkbox"/>	2.20	J,K	25	7.9	200.0	1.05	600	Orange
GNLE2012PS-2R7 <input type="checkbox"/>	2.70	J,K	25	7.9	130.0	1.18	500	Yellow
GNLE2012PS-3R3 <input type="checkbox"/>	3.30	J,K	25	7.9	160.0	1.26	480	Green
GNLE2012PS-3R9 <input type="checkbox"/>	3.90	J,K	25	7.9	130.0	1.75	440	Blue
GNLE2012PS-4R7 <input type="checkbox"/>	4.70	J,K	25	7.9	120.0	1.87	390	Violet
GNLE2012PS-5R6 <input type="checkbox"/>	5.60	J,K	25	7.9	90.0	2.00	340	Gray
GNLE2012PS-6R8 <input type="checkbox"/>	6.80	J,K	25	7.9	55.0	2.15	300	White
GNLE2012PS-8R2 <input type="checkbox"/>	8.20	J,K	25	7.9	40.0	2.37	280	Black
GNLE2012PS-100 <input type="checkbox"/>	10.00	J,K	16	2.5	40.0	2.55	260	Brown

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GNLE2012PS-SERIES

Dimension [mm] :



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Size	A(Max.)	B(Max.)	C(Max.)	D(+/-0.1)	E(Ref.)	F(Ref.)	G(Ref.)
2012	2.40	1.60	1.25	0.45	2.80	1.00	1.78

Electrical Characteristics :

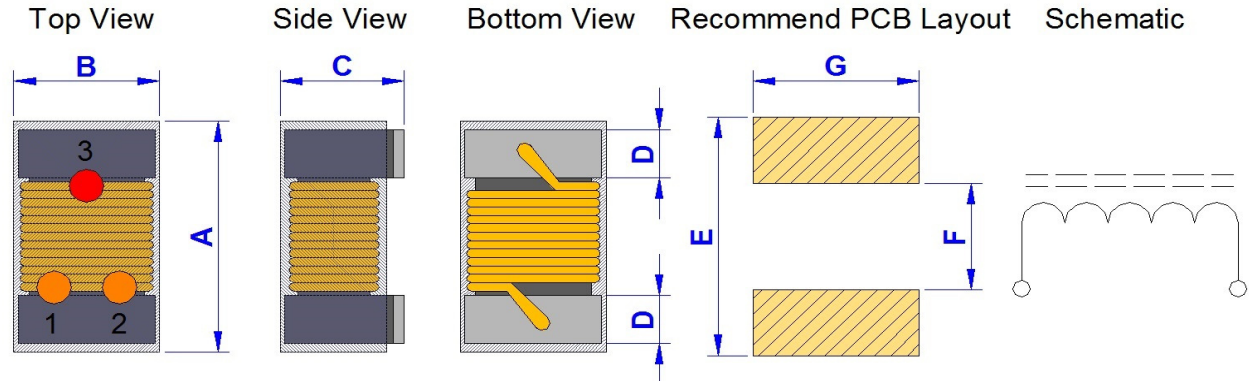
Part NO.	L - Value (uH)	Available Tolerance	Q Value (Min.)	Test Freq. (MHz)	S.R.F (MHz) (Min.)	DCR (Ohm) (Max.)	IDC (mA) (Max.)	Color-Dot Marking
GNLE2012PS-120 <input type="checkbox"/>	12.00	J,K	16	2.5	37.0	2.80	220	Red
GNLE2012PS-150 <input type="checkbox"/>	15.00	J,K	16	2.5	30.0	3.80	200	Orange
GNLE2012PS-180 <input type="checkbox"/>	18.00	J,K	16	2.5	23.0	4.48	180	Yellow
GNLE2012PS-220 <input type="checkbox"/>	22.00	J,K	16	2.5	20.0	6.30	160	Green
GNLE2012PS-270 <input type="checkbox"/>	27.00	J,K	16	2.5	19.0	6.85	140	Blue
GNLE2012PS-330 <input type="checkbox"/>	33.00	J,K	16	2.5	18.0	7.60	120	Violet

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GNLE2520P-SERIES

Dimension [mm] :



Marking : 1. Color point code : 0 1 2 3 4 5 6 7 8 9
 Black Brown Red Orange Yellow Green Blue Violet Gray White

2. Color point inductance conversion method: [(1st. dot x 10) + 2nd. dot] x 10^{3rd. dot} = nH

Size	A(Max.)	B(Max.)	C(Max.)	D(+/-0.1)	E(Ref.)	F(Ref.)	G(Ref.)
2520	2.90	2.50	2.10	0.55	3.30	1.30	2.54

Electrical Characteristics :

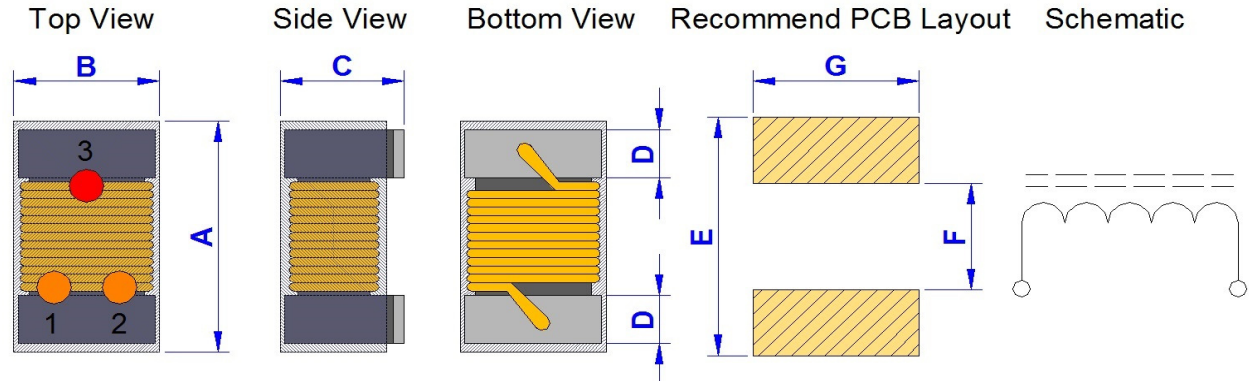
Part NO.	L - Value (uH)	Available Tolerance	Q value (Min.)	Test Freq. (MHz)	S.R.F (MHz) (Min.)	DCR (Ohm) (Max.)	IDC (mA) (Max.)	Color-Dot Marking		
GNLE2520P-1R0 <input type="checkbox"/>	1.0	K,M	12	7.96	345	0.13	1000	Brown	Black	Red
GNLE2520P-1R5 <input type="checkbox"/>	1.5	K,M	12	7.96	100	0.17	850	Brown	Green	Red
GNLE2520P-2R2 <input type="checkbox"/>	2.2	K,M	12	7.96	78	0.21	775	Red	Red	Red
GNLE2520P-3R3 <input type="checkbox"/>	3.3	K,M	12	7.96	48	0.26	715	Orange	Orange	Red
GNLE2520P-4R7 <input type="checkbox"/>	4.7	K,M	12	7.96	46	0.52	505	Yellow	Violet	Red
GNLE2520P-6R8 <input type="checkbox"/>	6.8	K,M	12	7.96	33	0.72	432	Blue	Gray	Red
GNLE2520P-100 <input type="checkbox"/>	10.0	K,M	12	2.52	28	0.86	392	Brown	Black	Orange
GNLE2520P-150 <input type="checkbox"/>	15.0	K,M	12	2.52	21	1.09	342	Brown	Green	Orange
GNLE2520P-220 <input type="checkbox"/>	22.0	K,M	12	2.52	18	1.96	260	Red	Red	Orange
GNLE2520P-330 <input type="checkbox"/>	33.0	K,M	12	2.52	15	2.47	236	Orange	Orange	Orange

* Tolerance Code : K=+/-10%, M=+/-20% (all available) * IDC for a 40deg.C rise above 25deg.C ambient.

Product Series : GNLE	Brand : GOTREND
File Version : GNLE-SERIES-V3R8	Editor : Qiuyi Wu
Established Date : 2009.07.20	Description : Ferrite Core Wound Inductor - LowProfile & IDC Enhanced
Latest Edit Date : 2023.06.09	Product Type : <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Customize

GNLE2520PS-SERIES

Dimension [mm] :



Marking : 1. Color point code : 0 1 2 3 4 5 6 7 8 9
 Black Brown Red Orange Yellow Green Blue Violet Gray White

2. Color point inductance conversion method: [(1st. dot x 10) + 2nd. dot] x 10^{3rd. dot} = nH

Size	A(Max.)	B(Max.)	C(Max.)	D(+/-0.1)	E(Ref.)	F(Ref.)	G(Ref.)
2520	2.90	2.50	2.10	0.55	3.30	1.30	2.54

Electrical Characteristics :

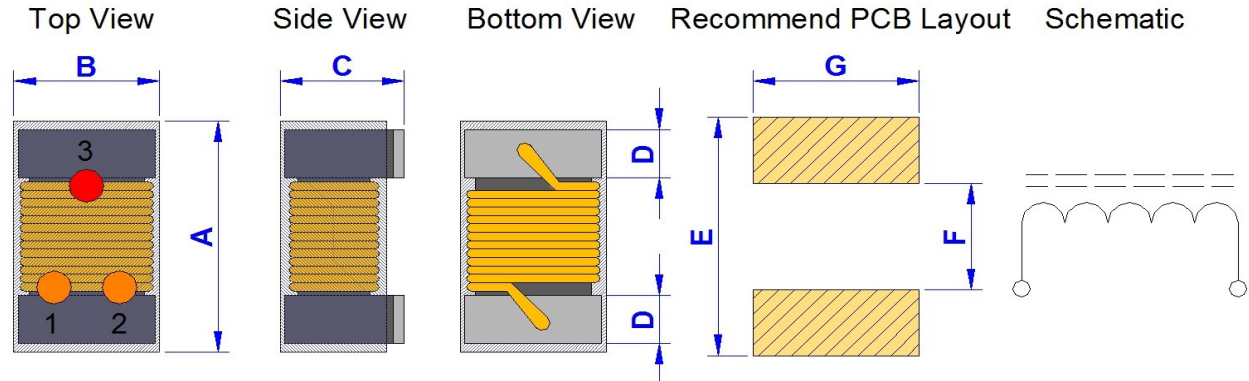
Part NO.	L / Freq (uH)/(MHz)	Available Tolerance	Q value (Min.)	Q Test Freq. (MHz)	S.R.F (MHz) (Min.)	DCR (Ohm) (Max.)	IDC (mA) (Max.)	Color-Dot Marking		
GNLE2520PS-R18 <input type="checkbox"/>	0.18/25	J,K	30	25.0	930	0.30	960	Brown	Black	Brown
GNLE2520PS-R20 <input type="checkbox"/>	0.20/25	J,K	30	25.0	735	0.30	960	Red	Black	Brown
GNLE2520PS-R22 <input type="checkbox"/>	0.22/25	J,K	30	25.0	930	0.40	920	Red	Red	Brown
GNLE2520PS-R39 <input type="checkbox"/>	0.39/25	J,K	30	25.0	480	0.45	920	Orange	White	Brown
GNLE2520PS-R56 <input type="checkbox"/>	0.56/25	J,K	30	25.0	460	0.55	900	Green	Blue	Brown
GNLE2520PS-R62 <input type="checkbox"/>	0.62/25	J,K	30	25.0	460	0.55	900	Blue	Red	Brown
GNLE2520PS-R68 <input type="checkbox"/>	0.68/25	J,K	30	25.0	420	0.55	880	Blue	Gray	Brown
GNLE2520PS-R75 <input type="checkbox"/>	0.75/25	J,K	30	25.0	420	0.65	880	Violet	Green	Brown
GNLE2520PS-R82 <input type="checkbox"/>	0.82/25	J,K	30	25.0	380	0.65	840	Gray	Red	Brown
GNLE2520PS-R91 <input type="checkbox"/>	0.91/25	J,K	30	25.0	400	0.65	840	White	Brown	Brown
GNLE2520PS-1R0 <input type="checkbox"/>	1.0/7.9	J,K	25	7.9	300	0.60	800	Brown	Black	Red
GNLE2520PS-1R2 <input type="checkbox"/>	1.2/7.9	J,K	25	7.9	280	0.74	800	Brown	Red	Red
GNLE2520PS-1R5 <input type="checkbox"/>	1.5/7.9	J,K	25	7.9	245	0.85	780	Brown	Green	Red
GNLE2520PS-1R8 <input type="checkbox"/>	1.8/7.9	J,K	25	7.9	240	0.92	780	Brown	Gray	Red
GNLE2520PS-2R2 <input type="checkbox"/>	2.2/7.9	J,K	25	7.9	205	1.10	760	Red	Red	Red
GNLE2520PS-2R7 <input type="checkbox"/>	2.7/7.9	J,K	25	7.9	187	1.22	760	Red	Violet	Red
GNLE2520PS-3R3 <input type="checkbox"/>	3.3/7.9	J,K	25	7.9	165	1.37	740	Orange	Orange	Red
GNLE2520PS-3R9 <input type="checkbox"/>	3.9/7.9	J,K	25	7.9	144	1.66	700	Orange	White	Red
GNLE2520PS-4R7 <input type="checkbox"/>	4.7/7.9	J,K	25	7.9	110	1.68	660	Yellow	Violet	Red
GNLE2520PS-5R6 <input type="checkbox"/>	5.6/7.9	J,K	25	7.9	88	1.75	640	Green	Blue	Red
GNLE2520PS-6R8 <input type="checkbox"/>	6.8/7.9	J,K	25	7.9	70	1.85	640	Blue	Gray	Red
GNLE2520PS-8R2 <input type="checkbox"/>	8.2/7.9	J,K	25	7.9	57	2.00	600	Gray	Red	Red
GNLE2520PS-100 <input type="checkbox"/>	10.0/2.5	J,K	15	2.5	55	2.32	600	Brown	Black	Orange
GNLE2520PS-120 <input type="checkbox"/>	12.0/2.5	J,K	15	2.5	52	2.99	560	Brown	Red	Orange

* Tolerance Code : J=+/-5%, K=+/-10% (all available) * IDC for a 40deg.C rise above 25deg.C ambient.

Product Series : GNLE	Brand : GOTREND
File Version : GNLE-SERIES-V3R8	Editor : Qiuyi Wu
Established Date : 2009.07.20	Description : Ferrite Core Wound Inductor - LowProfile & IDC Enhanced
Latest Edit Date : 2023.06.09	Product Type : <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Customize

GNLE2520PS-SERIES

Dimension [mm] :



Marking : 1. Color point code : 0 1 2 3 4 5 6 7 8 9
 Black Brown Red Orange Yellow Green Blue Violet Gray White

2. Color point inductance conversion method: [(1st. dot x 10) + 2nd. dot] x 10^{3rd. dot} = nH

Size	A(Max.)	B(Max.)	C(Max.)	D(+/-0.1)	E(Ref.)	F(Ref.)	G(Ref.)
2520	2.90	2.50	2.10	0.55	3.30	1.30	2.54

Electrical Characteristics :

Part NO.	L / Freq (uH)/(MHz)	Available Tolerance	Q value (Min.)	Q Test Freq. (MHz)	S.R.F (MHz) (Min.)	DCR (Ohm) (Max.)	IDC (mA) (Max.)	Color-Dot Marking		
GNLE2520PS-150 <input type="checkbox"/>	15.0/2.5	J,K	15	2.5	49	3.42	480	Brown	Green	Orange
GNLE2520PS-180 <input type="checkbox"/>	18.0/2.5	J,K	15	2.5	48	4.65	420	Brown	Gray	Orange
GNLE2520PS-220 <input type="checkbox"/>	22.0/2.5	J,K	15	2.5	25	5.12	420	Red	Red	Orange
GNLE2520PS-270 <input type="checkbox"/>	27.0/2.5	J,K	15	2.5	23	5.76	420	Red	Violet	Orange
GNLE2520PS-330 <input type="checkbox"/>	33.0/2.5	J,K	15	2.5	17	6.44	400	Orange	Orange	Orange
GNLE2520PS-390 <input type="checkbox"/>	39.0/2.5	J,K	15	2.5	15	6.85	380	Orange	White	Orange
GNLE2520PS-470 <input type="checkbox"/>	47.0/2.5	J,K	14	2.5	13	9.94	340	Yellow	Violet	Orange
GNLE2520PS-560 <input type="checkbox"/>	56.0/2.5	J,K	14	2.5	10	10.70	280	Green	Blue	Orange
GNLE2520PS-680 <input type="checkbox"/>	68.0/2.5	J,K	14	2.5	8	12.80	260	Blue	Gray	Orange
GNLE2520PS-820 <input type="checkbox"/>	82.0/2.5	J,K	14	2.5	8	18.30	240	Gray	Red	Orange
GNLE2520PS-101 <input type="checkbox"/>	100.0/1.0	J,K	8	1.0	7	19.60	200	Brown	Black	Yellow

* Tolerance Code : J=+/-5%, K=+/-10%(all available) * IDC for a 40deg.C rise above 25deg.C ambient.

Product Series : GNLE	Brand : GOTREND
File Version : GNLE-SERIES-V3R8	Editor : Qiuyi Wu
Established Date : 2009.07.20	Description : Ferrite Core Wound Inductor - LowProfile & IDC Enhanced
Latest Edit Date : 2023.06.09	Product Type : <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Customize

Care note :

Care note for Use :

(1) Storage Condition :

Temperature 25 to 35 deg.C , Humidity 45 to 60% RH

(2) Use Temperature :

- a. Minimum Temperature : -40 deg.C Ambient temperature of this product.
- b. Maximum Temperature : +125 deg.C The value of temperature including ambient and temperature rise of this product.
- c. Reliability test temperature range from -40 ~ +125 deg.C
- d. However, this is not meant as temperature grade guarantee for UL.

(3) Model :

When this product was used in a similar or as new product to the original one, sometimes it might be unable to satisfy the specifications due to difference in condition of usage.

(4) Drop :

If this product suffered mechanical stress such as drop, characteristics may become poor (due to damage on coil / bobbin / ferrite ... etc.)

Never use such stressed product.

Care note for Safety :

(1) Provision to Abnormal Condition :

This product itself does not have any protective function in abnormal condition such as overload, short-circuit and open-circuit conditions, etc.

Therefore, it shall be confirmed from the end product that there is no risk of smoking, fire, dielectric withstand voltage insulation resistance,etc. in abnormal conditions to provide protective devices and /or protection circuit in the end product.

(2) Temperature Rise :

Temperature rise on this product depends on the installation condition on end products.

It shall be confirmed on the actual end product that temperature rise of this product is within the specified temperature class limit.

(3) Dielectric Strength :

Dielectric withstanding test with higher voltage than specific value will damage insulating material and shorten its life.

(4) Water :

This product must not be used in wet condition resulted from water, coffee or any liquid contact because insulation strength becomes very low under such condition.

(5) Potting :

If this product is potted in some compound, coating material of magnet wire might be occasionally damaged. Please ask us if you intend to pot this product.

(6) Detergent :

Please consult our company immediately once under such circumstances because product reliability confirmation etc. is needed when this product come in contact with these chemicals.

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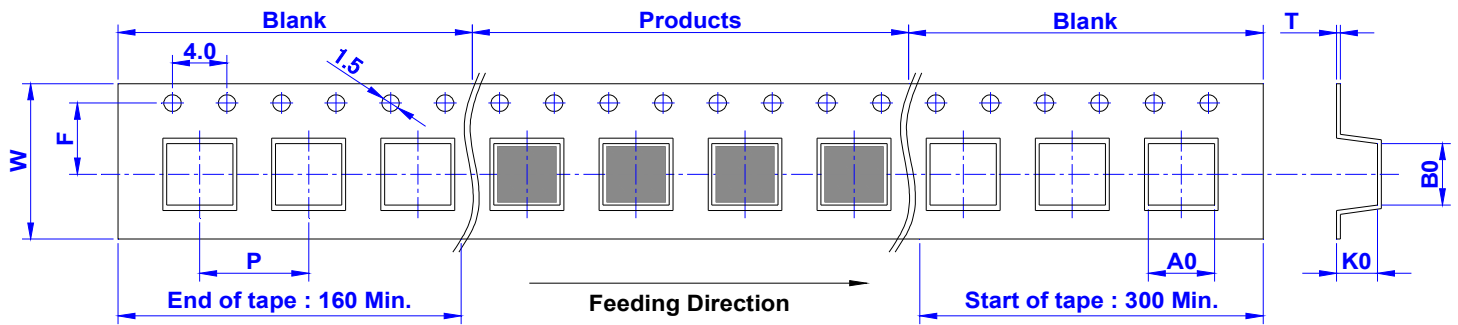
Reliability :

SN	Test Item	Test Condition	Specification		
1	Dimension	Actual Size ...	Meet Spec		
2	Thermal Shock (Temperature Cycle)	Temperature : -40 ~ +125 deg.C kept stabilized for 30 min. each Cycle : 100 Cycles (power off)	Elec. no variation Appearance no deformation		
3	Humidity Resistance	Humidity : 90% ~ 95% RH Temperature : 60 ± 2 deg.C, Test Time : 96 ± 2 Hours	Elec. no variation Appearance no deformation		
4	HighTemperature	Temperature : 125 ± 2 deg.C Testing Time : 96 ± 2 Hours	Elec. no variation Appearance no deformation		
5	Low Temperature	Temperature : -40 ± 2 deg.C Time : 96 ± 2 Hours	Elec. no variation Appearance no deformation		
6	Temperature and Humidity Cycle	Temperature	Humidity	Time	Elec. no variation Appearance no deformation
		25 deg.C	90% ~ 95% RH	3.0 Hr	
		55 deg.C	95% ~ 96% RH	5.0 Hr	
		25 deg.C	90% ~ 95% RH	3.0 Hr	
		Cycle : 20 Cycles			
7	Vibration	Frequency : 10Hz ~ 55Hz, Amplitude : 1.5 mm Direction : X, Y, Z, Time : 2 Hours each	Elec. no variation Appearance no deformation		
8	Solderability	Go through real SMT IR-Reflow ... The profile like our suggest profile. Preheat : 160 ± 10 deg.C (90 sec) Peak : 245 ± 5 deg.C Peak Time : 50 Sec. / up 217 deg.C	Elec. no variation Appearance no deformation		
9	Soldering Heat Resistance	Preheat : 160 ± 10 deg.C (90 sec) Solder : Sn / Ag / Cu (Pb Free) Solder Temp. : 260 ± 5 deg.C, Time : 3 ± 1 seconds	Elec. no variation Appearance no deformation		
10	Iron Solder Heat Resistance	Solder Temp. : 350 ± 5 deg.C Flux : Rosin, Time : 3 ± 1 seconds	Elec. no variation Appearance no deformation		
11	Bending Strength	Unit : mm Force : 1Kg / min.	Elec. no variation Appearance no deformation		
12	Flexure Strength	Unit : mm Solder cream 0.15 mm	Elec. no variation Appearance no deformation		
13	Terminal Strength	 Mount on PCB Solder Cream 0.15 mm Push 10N force to X, Y direction	Elec. no variation Appearance no deformation		
14	High-Voltage	100 V DC between core & winding	Elec. no variation Appearance no deformation		
15	Load life	Temperature : 25 ± 3 deg.C Load : Allowed DC Current, Test Time : 96 ± 2 Hours	Elec. no variation Appearance no deformation		

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Latest Edit Date : 2023.06.09	Product Type : <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Customize

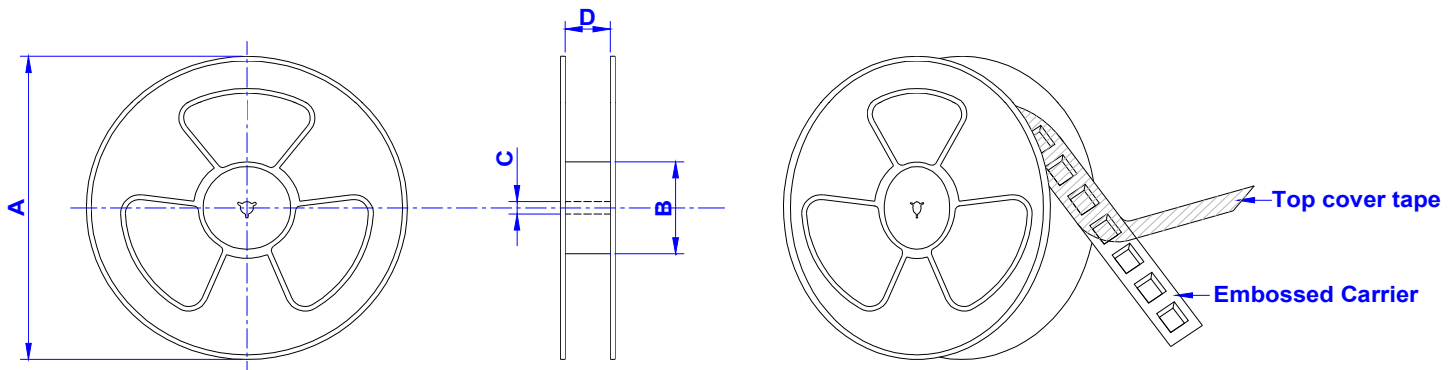
Packaging Information :

Tape Dimension (mm) :



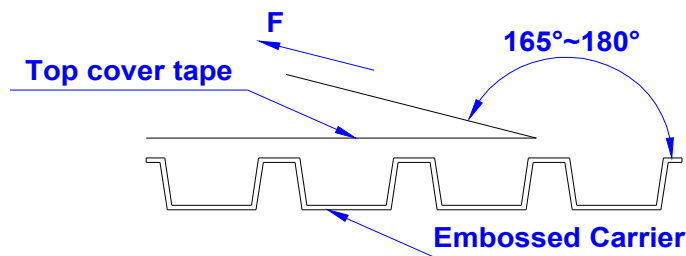
SIZE/mm	W	P	A0	B0	K0	T	F
1610	8.00	4.00	NA	NA	NA	NA	1.00
2012	8.00	4.00	NA	NA	NA	NA	1.00
2520	8.00	4.00	NA	NA	NA	NA	1.00

Reel Dimension (mm) :



SIZE/mm	Reel Size	A	B	C	D	QTY / Reel	Unit Weight	Reel Weight
1610	7" x 8 mm	178	60	13	8.5	4000 PCS	0.20Kg	0.25Kg
2012	7" x 8 mm	178	60	13	8.5	2000 PCS	0.20Kg	0.25Kg
2520	7" x 8 mm	178	60	13	8.5	2000 PCS	0.25Kg	0.30Kg

Tearing Off Force :



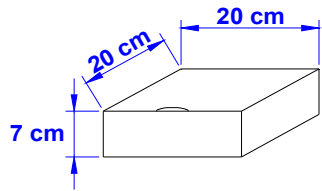
The force for tearing off cover tape is 10 to 130 grams in the arrow direction under the following conditions (referenced ANSI / EIA - 481 - D - 2008 of 4.11stadnard).

Room Temp. (deg.C)	Room Humidity (%)	Room Atm. (hPa)	Tearing Speed (mm / min)
5 ~ 35	45 ~ 85	860 ~ 1060	300

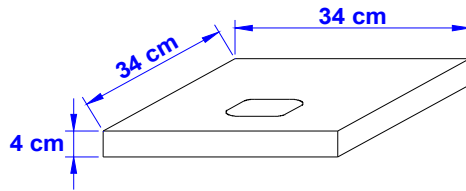
Product Series : GNLE	Brand : GOTREND
File Version : GNLE-SERIES-V3R8	Editor : Qiuyi Wu
Established Date : 2009.07.20	Description : Ferrite Core Wound Inductor - LowProfile & IDC Enhanced
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Packaging Information :

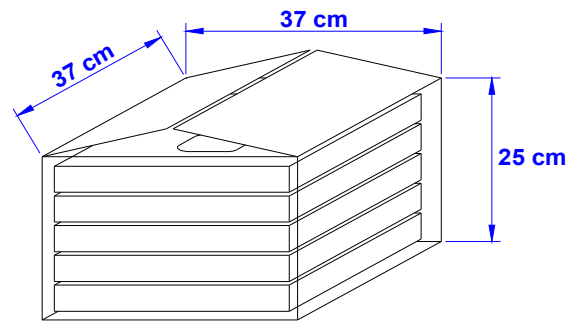
Box Package :



7" Small Box



13" Small Box



Large Box

SIZE/mm	Reels in Small Box	Small Box in Large Box
1610	5	8
2012	5	8
2520	5	8