



<b>Product Series :</b> GNLT	<b>Brand :</b> GOTREND
<b>File Version :</b> GNLT-SERIES-AF-V1R0	<b>Editor :</b> Qiuyi Wu
<b>Established Date :</b> 2023.05.15	<b>Description :</b> High Frequency Wound Inductor
<b>Latest Edit Date :</b> 2023.05.15	<b>Product Type :</b> <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.
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- ◆ 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.
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- ◆ 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 :**

- \* Ceramic construction for high Q ,high frequency characteristic
- \* Fit for power line & signal line circuit
- \* To help you go pass the CE/FCC standard.
- \* Mobil Device / Handheld Device / LowProfile Device / Panel
- \* **Qualified AEC-Q200**
- \* **Automotive and other high temperature , high reliability application .**



( Picture for reference only )

**Part No. Example :**

PN	:	<b>GNLT</b>	<b>202518</b>	<b>P</b>	<input type="checkbox"/>	-	<b>2R2</b>	<input type="checkbox"/>	-	<b>AF</b>
ID	:	1	2	3	4		5	6		7
1	:	GOTREND Series : GNLT								
2	:	Dimension Code : 252018 [ 2.5 x 2.0x 1.8 mm ]								
3	:	P = Pb < 1000 ppm								
4	:	[ Q ] : Material Code								
5	:	[ L ] Value : Inductance 2R2 = 2.2uH								
6	:	Tolerance : G = 2% , J = 5% , K = 10% , M = 20% ,								
7	:	<b>[ AF ] : Reliability comply with AEC-Q200 standard type.</b>								

**Basic Information :**

<b>Made in</b>	Taiwan / China
<b>Pin Foot</b>	SMD
<b>Shielding</b>	No
<b>J-STD-020</b>	MSL Level 1
<b>RoHS</b>	Compliant
<b>REACH</b>	Compliant
<b>Halogen</b>	Free
<b>Automotive</b>	AEC Q200



**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



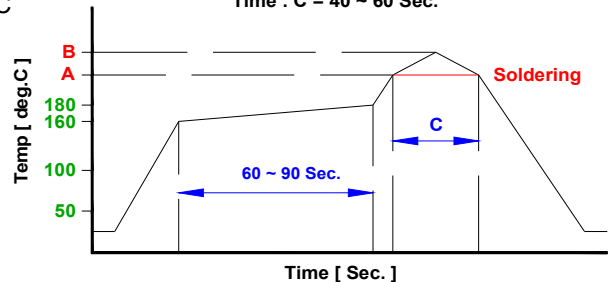
- \* Pin foot or SMD pad solderability: Pb free type is best within 6 months after delivery
- \* Humidity sensitive , IPC/JEDEC J-STD-020 MSL if over Level 1, recommend bake 30mins@150 degree before PCBA
- \* Caution for human life relative applications : PLS contact & consult with GOTREND team in design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

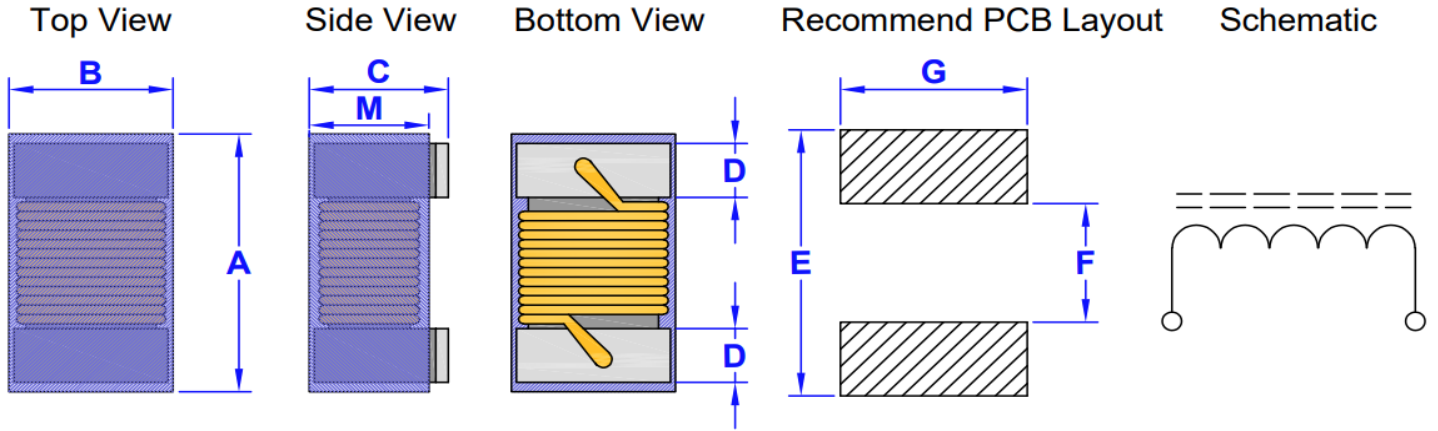
SMD High Frequency Wound Inductor - GNLT Series Type

Image	Part Name	L (mm) Typ.	W (mm) Typ.	H (mm) Typ.	Inductance Range (uH) J=+/-5%, K=+/-10%, M=+/-20%	DCR (Ohm) Typ.	IDC (A) Typ.	Q Typ.	Page
	GNLT252018PC	2.5	2.0	1.8	1.00   33.00	0.14 ~ 4.20	0.12 ~ 1.00	15 ~ 30	5
	GNLT252018PQ	2.5	2.0	1.8	0.12   100.00	0.30 ~ 21.00	0.06 ~ 0.55	15 ~ 30	6 ~ 7
	GNLT322522PC	3.2	2.5	2.2	1.00   330.00	0.055 ~ 12.30	0.07 ~ 1.70	15 ~ 20	8
	GNLT322522PQ	3.2	2.5	2.2	0.01   470.00	0.13 ~ 40.00	0.025 ~ 0.45	15 ~ 30	9 ~ 11

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## GNLT252018PC-SERIES-AF

### Dimension [ mm ] :



Size	A (+/-0.3)	B (+/-0.3)	C (+/-0.1)	M(+/-0.1)	D [ Ref. ]	E [ Ref. ]	F [ Ref. ]	G [ Ref. ]
252018	2.5	2.0	1.8	1.5	0.45	3.5	1.5	1.5

### Electrical Characteristics :

Part No.	Inductance ( uH )	Inductance Tolerance	L/Q Frequency (MHz)	Q ref	SRF (MHz) ref	DCR(Ohm) +/-30%	IDC1 (A) Max	IDC2 (A) Max
GNLT252018PC-1R0□-AF	1.0	K,M	7.96	20	300	0.140	0.475	1.000
GNLT252018PC-1R5□-AF	1.5	K,M	7.96	20	250	0.180	0.435	0.890
GNLT252018PC-2R2□-AF	2.2	K,M	7.96	20	200	0.270	0.390	0.730
GNLT252018PC-3R3□-AF	3.3	K,M	7.96	20	100	0.440	0.340	0.570
GNLT252018PC-4R7□-AF	4.7	K,M	7.96	20	60	0.570	0.285	0.500
GNLT252018PC-6R8□-AF	6.8	K,M	7.96	20	55	0.920	0.275	0.390
GNLT252018PC-100□-AF	10.0	K,M	2.52	15	40	0.169	0.210	0.360
GNLT252018PC-150□-AF	15.0	K,M	2.52	30	35	2.200	0.175	0.250
GNLT252018PC-220□-AF	22.0	K,M	2.52	30	20	2.800	0.160	0.200
GNLT252018PC-330□-AF	33.0	K,M	2.52	30	18	4.200	0.120	0.150

\* **Tolerance Code** : □ J=+/-5%, K=+/-10%, M=+/-20%(all available)

\* **IDC1**: The coil is energized according to the specification,  $IDC1 \Delta L \leq 10\% \Delta T \leq 20^\circ C$

\* **IDC2**: The coil is energized according to the specification,  $IDC2 \Delta L \leq 30\% \Delta T \leq 40^\circ C$

\* The coil is energized according to the specification, and the inductance change is smaller than the initial value (according to the specification value)

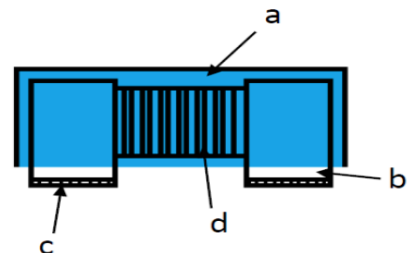
\* Heat Rated Current(Irms) will cause the coil temperature rise  $\Delta T(^{\circ}C)$  without core loss.

(1.)Applied the allowed DC current.

(2.)Temperature measured by digital surface thermometer.

### Materials:

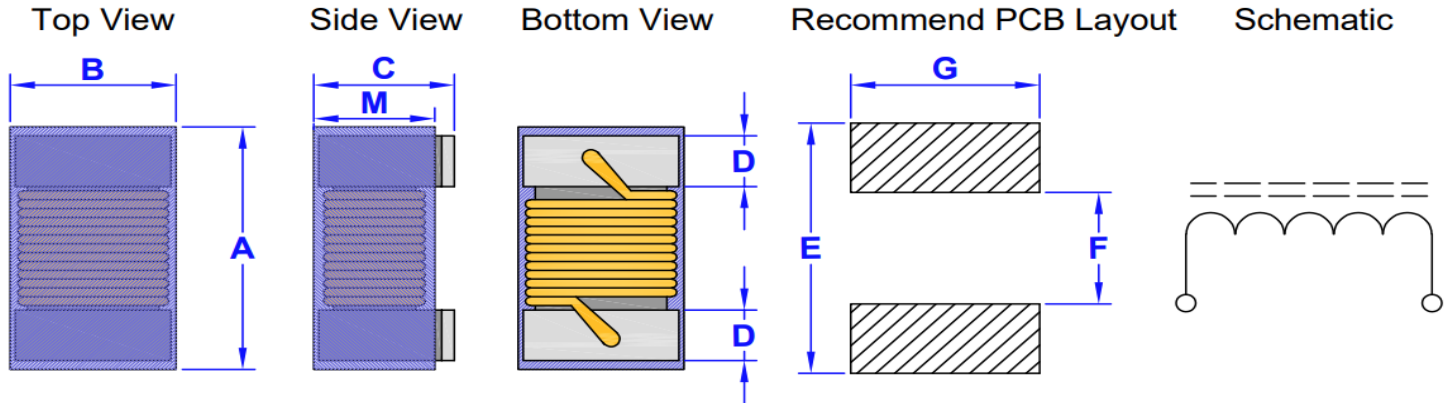
NO.	Description	Specification
a.	Upper plate	UV Glue
b.	Core	Ferrite Core
c.	Termination	Ag/Ni/Sn
d.	Wire	Enameled Copper Wire



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### GNLT252018PQ-SERIES-AF

Dimension [ mm ] :



Size	A (+/-0.3)	B (+/-0.3)	C (+/-0.1)	M (+/-0.1)	D [ Ref. ]	E [ Ref. ]	F [ Ref. ]	G [ Ref. ]
252018	2.5	2.0	1.8	1.5	0.45	3.5	1.5	1.5

Electrical Characteristics :

Part No.	Inductance ( uH )	Inductance Tolerance	L/Q Frequency (MHz)	Q ref	SRF (MHz) ref	DCR(Ohm) Max	IDC(A) Max
GNLT252018PQ-R12□-AF	0.12	J,K	25.2	30	700	0.30	0.550
GNLT252018PQ-R22□-AF	0.22	J,K	25.2	30	450	0.50	0.450
GNLT252018PQ-R27□-AF	0.27	J,K	25.2	30	425	0.55	0.425
GNLT252018PQ-R33□-AF	0.33	J,K	25.2	30	400	0.60	0.400
GNLT252018PQ-R47□-AF	0.47	J,K	25.2	30	350	0.68	0.400
GNLT252018PQ-R56□-AF	0.56	J,K	25.2	30	325	0.75	0.400
GNLT252018PQ-R82□-AF	0.82	J,K	25.2	30	260	1.00	0.300
GNLT252018PQ-1R0□-AF	1.00	J,K	7.96	30	245	1.10	0.245
GNLT252018PQ-1R2□-AF	1.20	J,K	7.96	30	230	1.20	0.230
GNLT252018PQ-2R2□-AF	2.20	J,K	7.96	30	105	1.55	0.200
GNLT252018PQ-3R3□-AF	3.30	J,K	7.96	30	55	1.90	0.185
GNLT252018PQ-4R7□-AF	4.70	J,K	7.96	30	43	2.30	0.175
GNLT252018PQ-5R6□-AF	5.60	J,K	7.96	25	42	2.50	0.170

\* **Tolerance Code :** □ J=+/-5%, K=+/-10%, M=+/-20%(all available)

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\* The coil is energized according to the specification, and the inductance change is smaller than the initial value (according to the specification value)

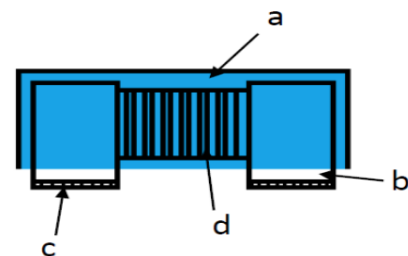
\* Heat Rated Current(Irms) will cause the coil temperature rise  $\Delta T(^{\circ}\text{C})$  without core loss.

(1.) Applied the allowed DC current.

(2.) Temperature measured by digital surface thermometer.

Materials:

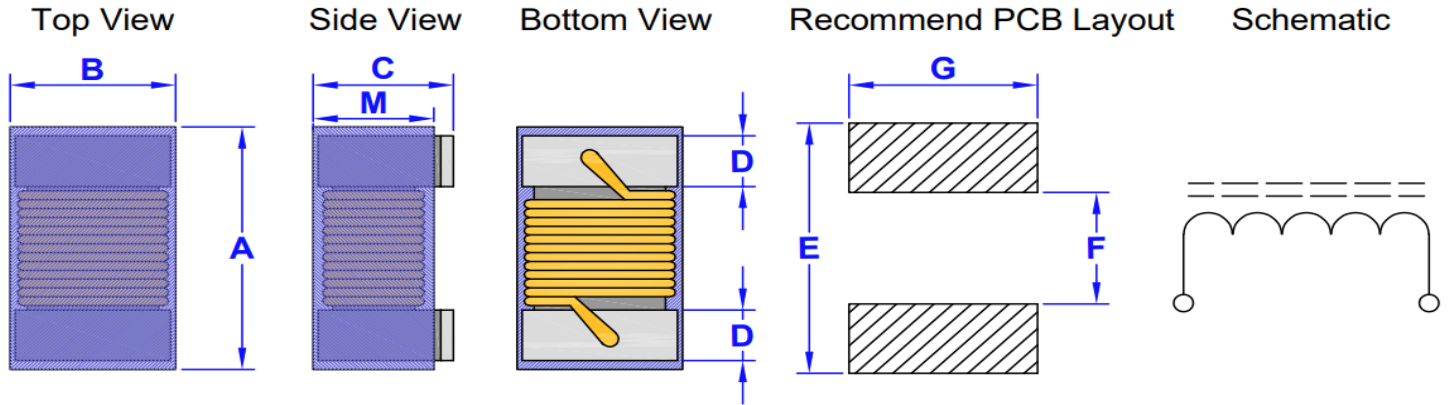
NO.	Description	Specification
a.	Upper plate	UV Glue
b.	Core	Ferrite Core
c.	Termination	Ag/Ni/Sn
d.	Wire	Enameled Copper Wire



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Dimension [ mm ] :



Size	A (+/-0.3)	B (+/-0.3)	C (+/-0.1)	M (+/-0.1)	D [ Ref. ]	E [ Ref. ]	F [ Ref. ]	G [ Ref. ]
252018	2.5	2.0	1.8	1.5	0.45	3.5	1.5	1.5

Electrical Characteristics :

Part No.	Inductance ( uH )	Inductance Tolerance	L/Q Frequency (MHz)	Q ref	SRF (MHz) ref	DCR(Ohm) Max	IDC(A) Max
GNLT252018PQ-6R8□-AF	6.80	J,K	7.96	25	39	2.70	0.165
GNLT252018PQ-8R2□-AF	8.20	J,K	7.96	25	36	3.05	0.160
GNLT252018PQ-100□-AF	10.00	J,K	2.52	25	33	3.50	0.155
GNLT252018PQ-150□-AF	15.00	J,K	2.52	25	26	4.80	0.140
GNLT252018PQ-220□-AF	22.00	J,K	2.52	25	22	5.50	0.125
GNLT252018PQ-270□-AF	27.00	J,K	2.52	25	21	6.30	0.115
GNLT252018PQ-330□-AF	33.00	J,K	2.52	25	20	7.10	0.110
GNLT252018PQ-470□-AF	47.00	J,K	2.52	20	17	11.10	0.080
GNLT252018PQ-560□-AF	56.00	J,K	2.52	20	16	12.10	0.075
GNLT252018PQ-680□-AF	68.00	J,K	2.52	20	15	16.60	0.070
GNLT252018PQ-820□-AF	82.00	J,K	2.52	20	13	19.00	0.066
GNLT252018PQ-101□-AF	100.00	J,K	0.796	15	12	21.00	0.060

\* **Tolerance Code** : □ J=+/-5%, K=+/-10%, M=+/-20%(all available)

\* **IDC**: The coil is energized according to the specification, IDC  $\Delta L \leq 10\%$   $\Delta T \leq 20^\circ\text{C}$

\* The coil is energized according to the specification, and the inductance change is smaller than the initial value (according to the specification value)

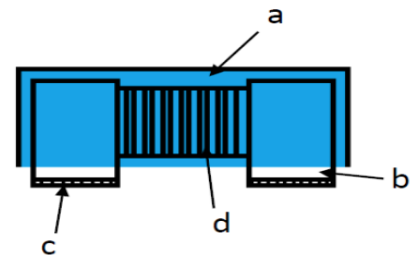
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(1.) Applied the allowed DC current.

(2.) Temperature measured by digital surface thermometer.

Materials:

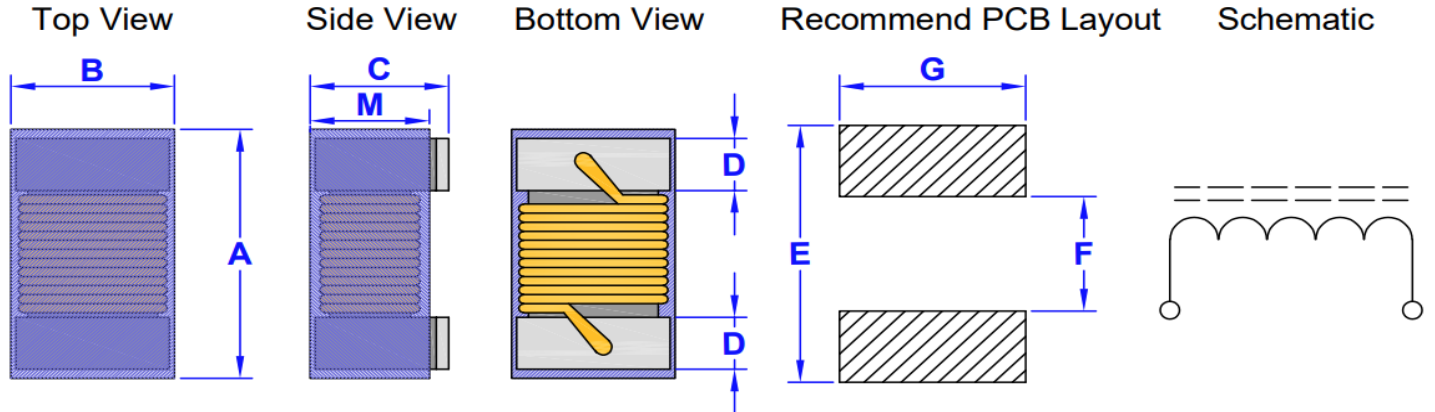
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### GNLT322522PC-SERIES-AF

Dimension [ mm ] :



Size	A (+/-0.3)	B (+/-0.3)	C (+/-0.2)	M (+/-0.1)	D [ Ref. ]	E [ Ref. ]	F [ Ref. ]	G [ Ref. ]
322522	3.2	2.5	2.2	1.8	0.55	4.4	2.0	2.0

#### Electrical Characteristics :

Part No.	Ls (uH)	Inductance Tolerance	L/Q Frequency (MHz)	Q Ref	SRF (MHz) Ref	DCR(Ohm) +/-20%	IDC1 (A) Max	IDC2 (A) Max
GNLT322522PC-1R0□-AF	1.00	M	7.96	15	300	0.055	1.000	1.700
GNLT322522PC-1R5□-AF	1.50	M	7.96	15	200	0.095	0.830	1.400
GNLT322522PC-2R2□-AF	2.20	M	7.96	15	100	0.115	0.770	1.200
GNLT322522PC-3R3□-AF	3.30	M	7.96	15	80	0.160	0.690	1.000
GNLT322522PC-4R7□-AF	4.70	M	7.96	15	70	0.200	0.620	0.900
GNLT322522PC-6R8□-AF	6.80	M	7.96	15	38	0.270	0.530	0.700
GNLT322522PC-100□-AF	10.00	K	2.52	15	30	0.360	0.450	0.600
GNLT322522PC-150□-AF	15.00	K	2.52	15	26	0.560	0.390	0.500
GNLT322522PC-220□-AF	22.00	K	2.52	15	21	0.770	0.300	0.400
GNLT322522PC-330□-AF	33.00	K	2.52	15	17	1.100	0.240	0.350
GNLT322522PC-470□-AF	47.00	K	2.52	15	14	1.640	0.180	0.250
GNLT322522PC-680□-AF	68.00	K	2.52	15	12	2.800	0.140	0.200
GNLT322522PC-101□-AF	100.00	K	0.796	20	10	3.700	0.120	0.150
GNLT322522PC-151□-AF	150.00	K	0.796	20	8	6.100	0.100	0.125
GNLT322522PC-221□-AF	220.00	K	0.796	20	7	8.400	0.080	0.100
GNLT322522PC-331□-AF	330.00	K	0.796	20	6	12.300	0.070	0.090

\* **Tolerance Code** : □ J=+/-5%, K=+/-10%, M=+/-20%(all available)

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\* **IDC2**: The coil is energized according to the specification, IDC2  $\Delta L \leq 30\%$   $\Delta T \leq 40^\circ\text{C}$

\* The coil is energized according to the specification, and the inductance change is smaller than the initial value (according to the specification value)

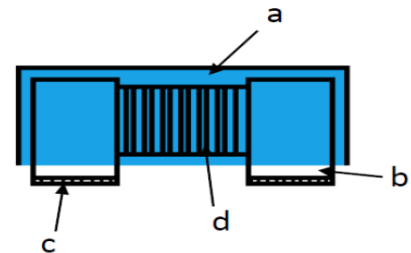
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(1.) Applied the allowed DC current.

(2.) Temperature measured by digital surface thermometer.

#### Materials:

NO.	Description	Specification
a.	Upper plate	UV Glue
b.	Core	Ferrite Core
c.	Termination	Ag/Ni/Sn
d.	Wire	Enameled Copper Wire

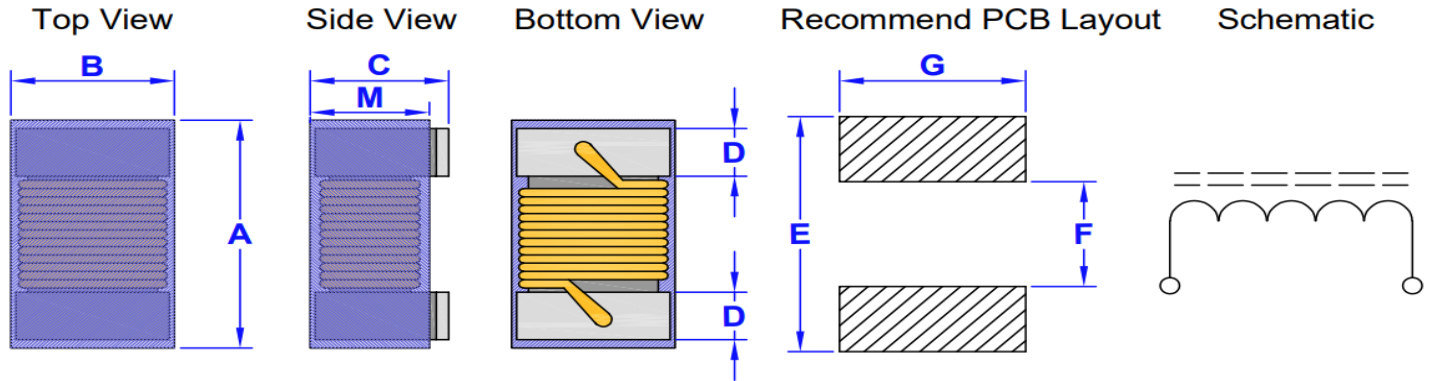




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### GNLT322522PQ-SERIES-AF

Dimension [ mm ] :



Size	A (+/-0.3)	B (+/-0.3)	C (+/-0.2)	M (+/-0.1)	D [ Ref. ]	E [ Ref. ]	F [ Ref. ]	G [ Ref. ]
322522	3.2	2.5	2.2	1.8	0.55	4.4	2.0	2.0

#### Electrical Characteristics :

Part No.	Ls (uH)	Inductance Tolerance	L/Q Frequency (MHz)	Q Ref	SRF(MHz) Ref	DCR(Ohm) Max	IDC(A) Max
GNLT322522PQ-10N□-AF	0.010	J,K	100.0	15	2500	0.13	0.450
GNLT322522PQ-12N□-AF	0.012	J,K	100.0	17	2300	0.14	0.450
GNLT322522PQ-15N□-AF	0.015	J,K	100.0	19	2100	0.16	0.450
GNLT322522PQ-18N□-AF	0.018	J,K	100.0	21	1900	0.18	0.450
GNLT322522PQ-22N□-AF	0.022	J,K	100.0	23	1700	0.22	0.450
GNLT322522PQ-27N□-AF	0.027	J,K	100.0	23	1500	0.22	0.450
GNLT322522PQ-33N□-AF	0.033	J,K	100.0	25	1400	0.24	0.450
GNLT322522PQ-39N□-AF	0.039	J,K	100.0	25	1300	0.27	0.450
GNLT322522PQ-47N□-AF	0.047	J,K	100.0	26	1200	0.30	0.450
GNLT322522PQ-56N□-AF	0.056	J,K	100.0	26	1100	0.33	0.450
GNLT322522PQ-68N□-AF	0.068	J,K	100.0	27	1000	0.36	0.450
GNLT322522PQ-82N□-AF	0.082	J,K	100.0	28	900	0.40	0.450
GNLT322522PQ-R10□-AF	0.100	J,K	100.0	28	700	0.44	0.450
GNLT322522PQ-R12□-AF	0.120	J,K	25.2	30	500	0.22	0.450
GNLT322522PQ-R15□-AF	0.150	J,K	25.2	30	450	0.25	0.450
GNLT322522PQ-R22□-AF	0.220	J,K	25.2	30	350	0.32	0.450

\* **Tolerance Code** : □ J=+/-5%, K=+/-10%, M=+/-20%(all available)

\* **IDC**: The coil is energized according to the specification, IDC  $\Delta L \leq 10\%$   $\Delta T \leq 20^\circ\text{C}$

\* The coil is energized according to the specification, and the inductance change is smaller than the initial value (according to the specification value)

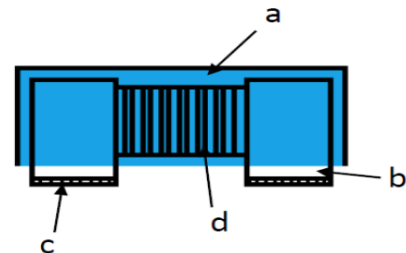
\* Heat Rated Current(Irms) will cause the coil temperature rise  $\Delta T(^{\circ}\text{C})$  without core loss.

(1.) Applied the allowed DC current.

(2.) Temperature measured by digital surface thermometer.

#### Materials:

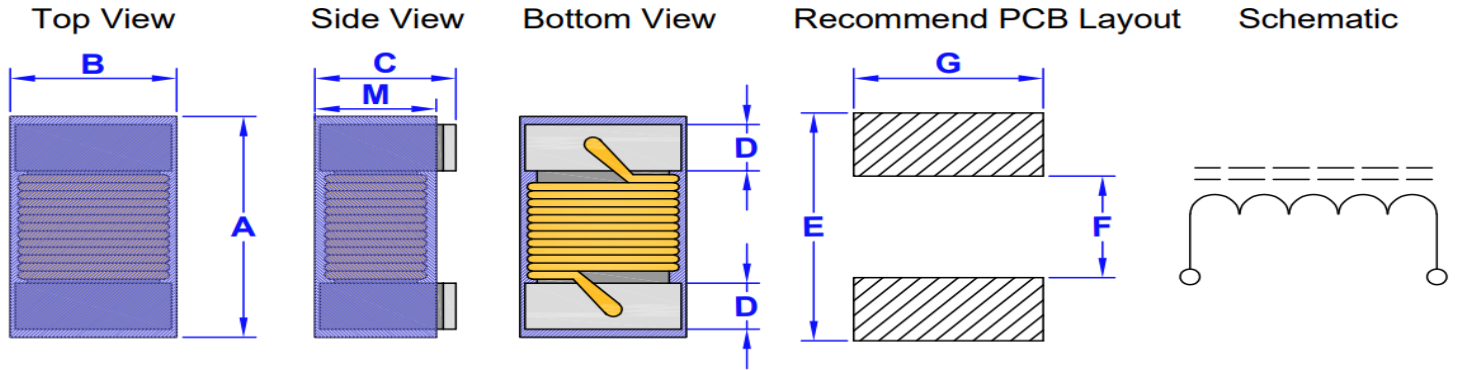
NO.	Description	Specification
a.	Upper plate	UV Glue
b.	Core	Ferrite Core
c.	Termination	Ag/Ni/Sn
d.	Wire	Enameled Copper Wire



<b>Product Series :</b> GNLT	<b>Brand :</b> GOTREND
<b>File Version :</b> GNLT-SERIES-AF-V1R0	<b>Editor :</b> Qiuyi Wu
<b>Established Date :</b> 2023.05.15	<b>Description :</b> High Frequency Wound Inductor
<b>Latest Edit Date :</b> 2023.05.15	<b>Product Type :</b> <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Customize

### GNLT322522PQ-SERIES-AF

Dimension [ mm ] :



Size	A (+/-0.3)	B (+/-0.3)	C (+/-0.2)	M (+/-0.1)	D [ Ref. ]	E [ Ref. ]	F [ Ref. ]	G [ Ref. ]
322522	3.2	2.5	2.2	1.8	0.55	4.4	2.0	2.0

#### Electrical Characteristics :

Part No.	Ls ( uH )	Inductance Tolerance	L/Q Frequency (MHz)	Q Ref	SRF(MHz) Ref	DCR(Ohm) Max	IDC(A) Max
GNLT322522PQ-R27□-AF	0.270	J,K	25.20	30	320	0.36	0.450
GNLT322522PQ-R33□-AF	0.330	J,K	25.20	30	300	0.40	0.450
GNLT322522PQ-R47□-AF	0.470	J,K	25.20	30	220	0.50	0.450
GNLT322522PQ-R56□-AF	0.560	J,K	25.20	30	180	0.55	0.450
GNLT322522PQ-R68□-AF	0.680	J,K	25.20	30	160	0.60	0.450
GNLT322522PQ-R82□-AF	0.820	J,K	25.20	30	140	0.65	0.450
GNLT322522PQ-1R0□-AF	1.000	J,K	7.96	30	120	0.70	0.400
GNLT322522PQ-1R5□-AF	1.500	J,K	7.96	30	85	0.85	0.370
GNLT322522PQ-2R2□-AF	2.200	J,K	7.96	30	75	1.00	0.320
GNLT322522PQ-3R3□-AF	3.300	J,K	7.96	30	60	1.20	0.260
GNLT322522PQ-4R7□-AF	4.700	J,K	7.96	30	50	1.50	0.220
GNLT322522PQ-5R6□-AF	5.600	J,K	7.96	30	45	1.60	0.200
GNLT322522PQ-6R8□-AF	6.800	J,K	7.96	30	40	1.80	0.180
GNLT322522PQ-8R2□-AF	8.200	J,K	7.96	30	30	2.00	0.170
GNLT322522PQ-100□-AF	10.000	J,K	2.52	25	30	2.10	0.150
GNLT322522PQ-220□-AF	22.000	J,K	2.52	25	20	3.70	0.110

\* **Tolerance Code :** □ J=+/-5%, K=+/-10%, M=+/-20%(all available)

\* **IDC:** The coil is energized according to the specification, IDC  $\Delta L \leq 10\%$   $\Delta T \leq 20^\circ\text{C}$

\* The coil is energized according to the specification, and the inductance change is smaller than the initial value (according to the specification value)

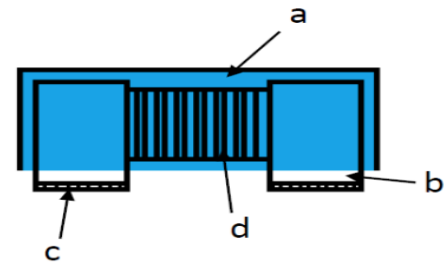
\* Heat Rated Current(Irms) will cause the coil temperature rise  $\Delta T(^{\circ}\text{C})$  without core loss.

(1.) Applied the allowed DC current.

(2.) Temperature measured by digital surface thermometer.

#### Materials:

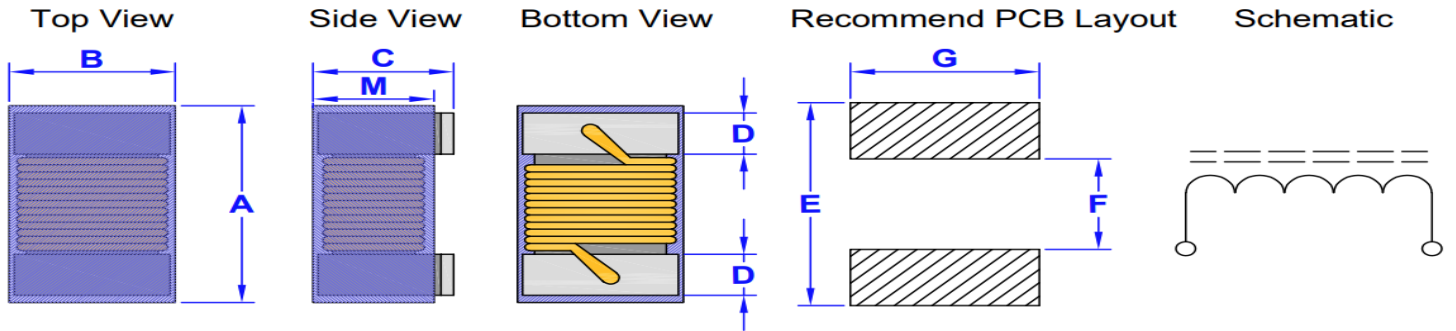
NO.	Description	Specification
a.	Upper plate	UV Glue
b.	Core	Ferrite Core
c.	Termination	Ag/Ni/Sn
d.	Wire	Enameled Copper Wire



Product Series : GNLT	Brand : GOTREND
File Version : GNLT-SERIES-AF-V1R0	Editor : Qiuyi Wu
Established Date : 2023.05.15	Description : High Frequency Wound Inductor
Latest Edit Date : 2023.05.15	Product Type : <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Customize

### GNLT322522PQ-SERIES-AF

Dimension [ mm ] :



Size	A (+/-0.3)	B (+/-0.3)	C (+/-0.2)	M (+/-0.1)	D [ Ref. ]	E [ Ref. ]	F [ Ref. ]	G [ Ref. ]
322522	3.2	2.5	2.2	1.8	0.55	4.4	2.0	2.0

Electrical Characteristics :

Part No.	Ls ( uH )	Inductance Tolerance	L/Q Frequency (MHz)	Q Ref	SRF(MHz) Ref	DCR(Ohm) Max	IDC(A) Max
GNLT322522PQ-330□-AF	33.00	J,K	2.52	25	17	5.60	0.070
GNLT322522PQ-470□-AF	47.00	J,K	2.52	25	15	7.00	0.060
GNLT322522PQ-680□-AF	68.00	J,K	2.52	25	12	9.00	0.050
GNLT322522PQ-820□-AF	82.00	J,K	2.52	25	11	10.00	0.045
GNLT322522PQ-101□-AF	100.00	J,K	0.796	20	10	10.00	0.040
GNLT322522PQ-121□-AF	120.00	J,K	0.796	20	10	11.00	0.040
GNLT322522PQ-151□-AF	150.00	J,K	0.796	20	10	11.00	0.065
GNLT322522PQ-181□-AF	180.00	J,K	0.796	20	7	17.00	0.060
GNLT322522PQ-221□-AF	220.00	J,K	0.796	20	7	21.00	0.050
GNLT322522PQ-271□-AF	270.00	J,K	0.796	20	6	28.00	0.045
GNLT322522PQ-331□-AF	330.00	J,K	0.796	20	5	34.00	0.040
GNLT322522PQ-391□-AF	390.00	J,K	0.796	20	5	38.00	0.035
GNLT322522PQ-471□-AF	470.00	J,K	0.796	20	4	40.00	0.025

\* **Tolerance Code** : □ J=+/-5%, K=+/-10%, M=+/-20%(all available)

\* **IDC** : The coil is energized according to the specification, IDC  $\Delta L \leq 10\%$   $\Delta T \leq 20^\circ\text{C}$

\* The coil is energized according to the specification, and the inductance change is smaller than the initial value (according to the specification value)

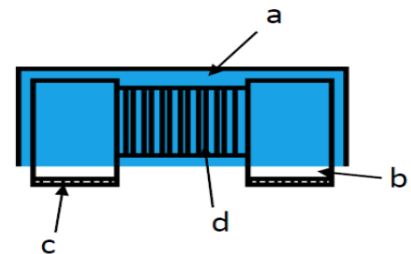
\* Heat Rated Current(Irms) will cause the coil temperature rise  $\Delta T(^\circ\text{C})$  without core loss.

(1.) Applied the allowed DC current.

(2.) Temperature measured by digital surface thermometer.

Materials:

NO.	Description	Specification
a.	Upper plate	UV Glue
b.	Core	Ferrite Core
c.	Termination	Ag/Ni/Sn
d.	Wire	Enameled Copper Wire



<b>Product Series :</b> GNLT	<b>Brand :</b> GOTREND
<b>File Version :</b> GNLT-SERIES-AF-V1R0	<b>Editor :</b> Qiuyi Wu
<b>Established Date :</b> 2023.05.15	<b>Description :</b> High Frequency Wound Inductor
<b>Latest Edit Date :</b> 2023.05.15	<b>Product Type :</b> <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Customize

**Care note :**

Care note for Use :

(1) Storage Condition :

Temperature 25 to 35 °C , Humidity 45 to 60% RH

(2) Use Temperature :

- a. Minimum Temperature : -40 °C Ambient temperature of this product.
- b. Maximum Temperature : +125 °C The value of temperature including ambient and temperature rise of this product.
- c. Reliability test temperature range from -40 ~ +125 °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.

<b>Product Series :</b> GNLТ	<b>Brand :</b> GOTREND
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<b>Established Date :</b> 2023.05.15	<b>Description :</b> High Frequency Wound Inductor
<b>Latest Edit Date :</b> 2023.05.15	<b>Product Type :</b> <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Customize

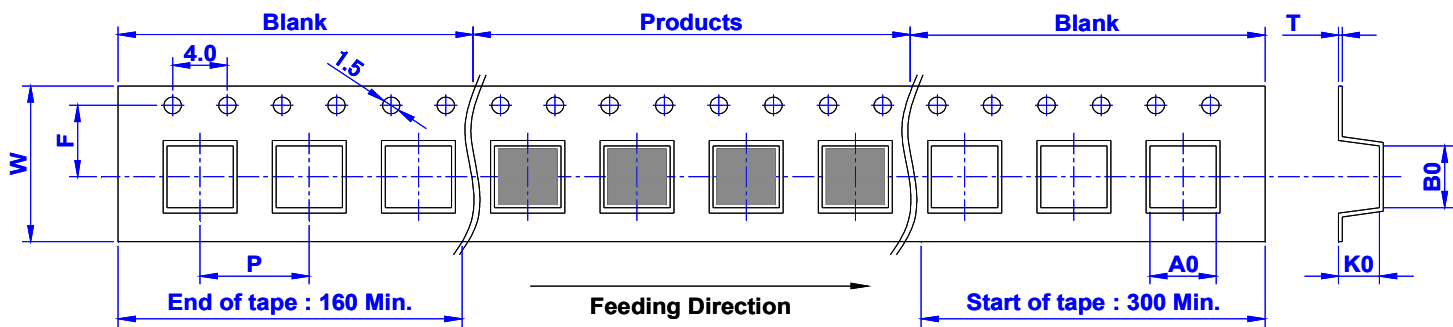
### Reliability for automotive products :

No	Item	Test Conditions	Specification
1	<b>External Visual</b> MIL-STD-883 Method 2009	Inspect device construction and workmanship. Electrical test not required.	There is no change for appearance ( electrode did not fall off , loose , no breakage , ferrite core did not break , damage )
2	<b>Physical Dimension</b> JESD22 Method JB-100	Verify physical dimensions to the device specification.	For Spec.
3	<b>Thermal Shock</b> MIL-STD-202 Method 107	Temperature : $-40\pm 2$ °C ~ $+125\pm 2$ °C Max transfer time : 20 s. Dwell time : 15 minutes. Air - Air	There is no change for appearance ( electrode did not fall off , loose , no breakage , ferrite core did not break , damage ) Inductor value / resistance change rate $\pm 10\%$ .
4	<b>Humidity Resistance</b> MIL-STD-202 Method 103	Humidity : 85% RH Temperature : 85 °C Test time : 1000 Hours	There is no change for appearance ( electrode did not fall off , loose , no breakage , ferrite core did not break , damage ) Inductor value / resistance change rate $\pm 10\%$ .
5	<b>High Temperature</b> MIL-STD-202 Method 108	Temperature : $125\pm 2$ °C Test time : 1000 Hours	There is no change for appearance ( electrode did not fall off , loose , no breakage , ferrite core did not break , damage ) Inductor value / resistance change rate $\pm 10\%$ .
6	<b>Temperature and Humidity Cycle</b> JESD22 Method JA-104	Temperature : $-40$ °C ~ $+125$ °C Cycles : 1000	There is no change for appearance ( electrode did not fall off , loose , no breakage , ferrite core did not break , damage ) Inductor value / resistance change rate $\pm 10\%$ .
7	<b>Operational Life</b> MIL-PRF-27	Temperature : 125 °C Load : Allowed DC current Test time : 1000 Hours	No short circuit , open circuit.
8	<b>Vibration</b> MIL-STD-202 Method 204	5 g's for 20 minutes , 12 cycles each of 3 orientations. Test from 10Hz ~ 2000Hz	No bad phenomenon.
9	<b>Mechanical Shock</b> MIL-STD-202 Method 213	Figure 1 of Method 213 SMD : Condition C.	No bad phenomenon.
10	<b>Resistance to Soldering Head</b> MIL-STD-202 Method 210	Condition B No pre-heat of samples. Temperature 250 up / 5 s. Temperature 183 up / 90 ~ 120 s.	Tin solder have to cover over 90% area.
11	<b>Solderability</b> J-STD-002	a. Method B , 4 Hours @ 155 °C dry heat @ 235 °C b. Method B @ 215 °C category 3 c. Method D @ 260 °C category 3	No change and transform form the appearance.

<b>Product Series :</b> GNLT	<b>Brand :</b> GOTREND
<b>File Version :</b> GNLT-SERIES-AF-V1R0	<b>Editor :</b> Qiuyi Wu
<b>Established Date :</b> 2023.05.15	<b>Description :</b> High Frequency Wound Inductor
<b>Latest Edit Date :</b> 2023.05.15	<b>Product Type :</b> <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Customize

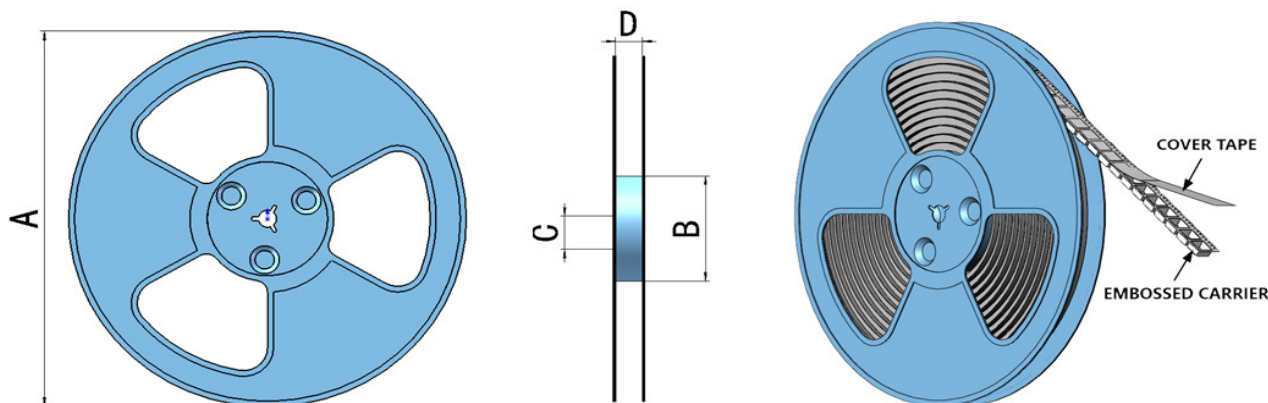
**Packaging Information :**

Tape Dimension ( mm )



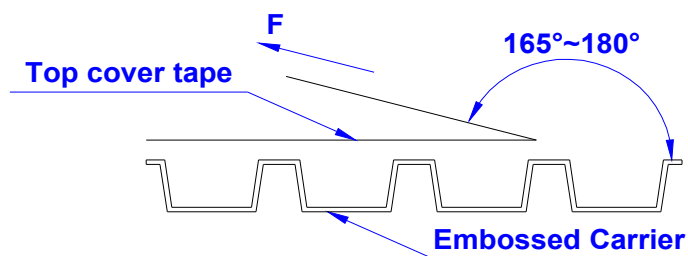
SIZE/mm	W	P	A0	B0	K0	T	F
2520	8.00	4.00	NA	NA	NA	NA	1.00
3225	8.00	4.00	2.88	3.72	2.5	0.26	3.5

Reel Dimension ( mm )



SIZE/mm	Reel Size	A	B	C	D	QTY / Reel	Unit Weight	Reel Weight
2520	7" x 8 mm	178	60	13	8.5	2000 PCS	0.25Kg	0.30Kg
3225	7" x 8 mm	178	60	13	8.5	2000 PCS	0.30Kg	0.35Kg

Tearing Off Force



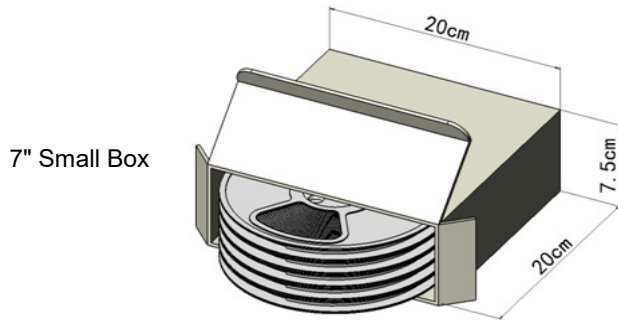
The force for tearing off cover tape is 10 to 130 grams in the arrow direction under the following conditions ( referenced ANSI / EIA - 481 - D - 2008 of 4.11stadnard ).

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

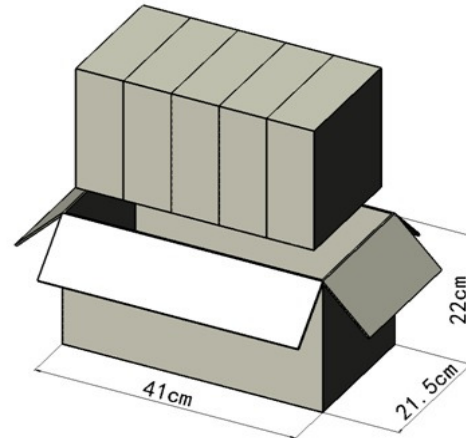
<b>Product Series :</b> GNLT	<b>Brand :</b> GOTREND
<b>File Version :</b> GNLT-SERIES-AF-V1R0	<b>Editor :</b> Qiuyi Wu
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<b>Latest Edit Date :</b> 2023.05.15	<b>Product Type :</b> <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Customize

**Packaging Information :**

Box Package



7" Small Box



7" Large Box

SIZE/mm	Reels in Small Box	Small Box in Large Box
2520	5	5
3225	5	5