Product Series :	GDO	Brand :	GOTREND
File Version :	GDO-SERIES-V3R3	Editor :	Teddy Sun
Established Date :	2009.08.04	Description :	Ferrite Core With Plastic Base Inductor
Latest Edit Date :	2020 10 30	Product Type :	☑ Standard ☐ Customize

Version Information:

SN	Date	Version Code	Modify Description	Editior
01	2020.10.30	V3R3	New version update release	Teddy Sun

GDO Product Series: Brand: **GOTREND** File Version: **GDO-SERIES-V3R3** Editor: Teddy Sun **Established Date:** 2009.08.04 Ferrite Core With Plastic Base Inductor **Description: Latest Edit Date:** 2020.10.30 ☑ Standard ☐ Customize **Product Type:**

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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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 - (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 SMT Drum Choke for PWM circuit
- * 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	:	GDO	0802	Р	-	680	М
ID	:	1	2	3		4	5

1 : GOTREND Series: GDO

2 : Size Code : 08023 : P=Pb free < 1000ppm

4 : [L] Value : Inductance 680=68uH

5 : Tolerance : 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 $-40 \sim +125 \text{ deg.C}$ (Including self - temperature rise) * Storage Temp $1.-10 \sim +45 \text{ deg.C}$, $50 \sim 60\%$ RH (Product with taping)

2. $-40 \sim +125 \text{ deg.C}$ (On board)

* Storage Life Time 12 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)

Vibrations or shocks which exceed the specified condition

Dew condense

Layout near the edge of PCB

Over flexure after SMT mounting & PCBA

- * Pin foot or SMD pad solderablility: 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

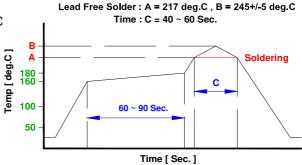
Humidity RH 65 ± 20%

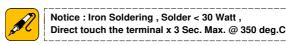
* If there may be any doubt on the test result ,

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



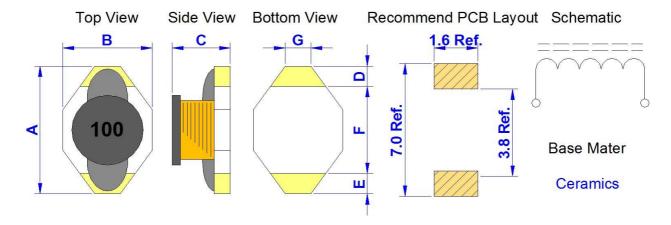




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GDO0402P-SERIES

Dimension [mm]:



Size	A [Max.]	B [Max.]	C [Max.]	D [+/-0.3]	E [+/-0.3]	F [+/-0.5]	G [+/-0.3]
0402	6.60	4.45	2.92	1.00	1.00	4.40	1.02

Part No.	L (uH) +/-20%	DCR (Ohm) Max.	SRF (MHz) Typ.	Isat (A) Typ.	Irms (A) Typ.
GDO0402P-1R0M	1.00	0.05	130.0	2.90	2.90
GDO0402P-1R5M	1.50	0.05	115.0	2.60	2.80
GDO0402P-2R2M	2.20	0.07	90.0	2.30	2.40
GDO0402P-2R7M	2.70	0.07	80.0	2.20	2.20
GDO0402P-3R3M	3.30	0.08	70.0	2.00	2.00
GDO0402P-4R7M	4.70	0.09	50.0	1.50	1.50
GDO0402P-6R8M	6.80	0.13	45.0	1.20	1.40
GDO0402P-100M	10.00	0.16	35.0	1.10	1.30
GDO0402P-150M	15.00	0.23	30.0	0.90	1.20
GDO0402P-220M	22.00	0.37	20.0	0.70	0.80
GDO0402P-330M	33.00	0.51	15.0	0.58	0.60
GDO0402P-470M	47.00	0.64	14.0	0.50	0.50
GDO0402P-680M	68.00	0.86	11.0	0.40	0.40
GDO0402P-101M	100.00	1.27	9.0	0.31	0.30
GDO0402P-151M	150.00	2.00	6.0	0.27	0.25
GDO0402P-221M	220.00	3.11	5.5	0.22	0.20
GDO0402P-331M	330.00	3.80	5.0	0.18	0.16
GDO0402P-471M	470.00	5.06	4.0	0.16	0.15
GDO0402P-681M	680.00	9.20	3.0	0.14	0.12
GDO0402P-102M	1000.00	13.80	2.0	0.10	0.07

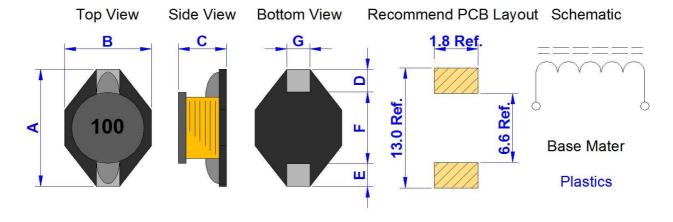
^{*} Test @100KHz, 1Vrms

^{*} Isat = L value 10% drop

^{*} Irms = Tempereture 40 deg.C Rise

GDO0802P-SERIES

Dimension [mm]:



Size	A [Max.]	B [Max.]	C [Max.]	D [Typ.]	E [Typ.]	F [+/-1.0]	G [+/-0.3]
0802	12.33	9.3	3.00	2.60	2.60	7.20	1.20

Electrical Characteristics:

Part No.	L (uH) +/-20%	DCR (Ohm) Max.	SRF (MHz) Typ.	Isat (A) Typ.	Irms (A) Typ.
GDO0802P-100M	10.00	0.11	35.00	2.40	2.00
GDO0802P-150M	15.00	0.15	33.00	2.00	1.50
GDO0802P-220M	22.00	0.23	25.00	1.60	1.30
GDO0802P-330M	33.00	0.30	19.00	1.40	1.10
GDO0802P-470M	47.00	0.39	14.00	1.00	0.80
GDO0802P-680M	68.00	0.66	12.00	0.90	0.70
GDO0802P-101M	100.00	0.84	10.00	0.70	0.60
GDO0802P-151M	150.00	1.20	8.00	0.60	0.50
GDO0802P-221M	220.00	1.90	6.00	0.50	0.40
GDO0802P-331M	330.00	2.70	5.00	0.40	0.30
GDO0802P-471M	470.00	4.00	4.00	0.30	0.20
GDO0802P-681M	680.00	5.30	3.00	0.20	0.10
GDO0802P-102M	1000.00	8.40	2.50	0.10	0.05

^{*} Test @100KHz, 1Vrms

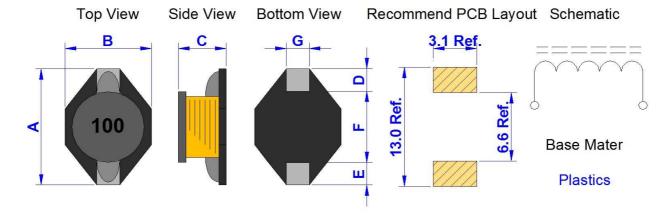
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^{*} Isat = L value 10% drop

^{*} Irms = Tempereture 40 deg.C Rise

GDO0804P-SERIES

Dimension [mm]:



Size	A [Max.]	B [Max.]	C [Max.]	D [+/-0.3]	E [+/-0.3]	F [+/-1.0]	G [+/-0.3]
0804	12.95	9.4	5.21	2.50	2.50	7.20	2.50

Part No.	L (uH) +/-20%	DCR (Ohm) Max.	SRF (MHz) Typ.	Isat (A) Typ.	Irms (A) Typ.
GDO0804P-1R0M	1.00	0.009	100.0	9.00	6.80
GDO0804P-1R5M	1.50	0.010	90.0	8.00	6.40
GDO0804P-2R2M	2.20	0.012	80.0	7.00	6.10
GDO0804P-3R3M	3.30	0.015	65.0	6.40	5.40
GDO0804P-4R7M	4.70	0.018	45.0	5.40	4.80
GDO0804P-6R8M	6.80	0.027	38.0	4.60	4.40
GDO0804P-100M	10.00	0.038	30.0	3.80	3.90
GDO0804P-150M	15.00	0.046	27.0	3.00	3.10
GDO0804P-220M	22.00	0.085	19.0	2.60	2.70
GDO0804P-330M	33.00	0.100	15.0	2.00	2.10
GDO0804P-470M	47.00	0.140	12.0	1.60	1.80
GDO0804P-680M	68.00	0.200	10.0	1.40	1.50
GDO0804P-101M	100.00	0.280	9.0	1.20	1.30
GDO0804P-151M	150.00	0.400	6.0	1.00	1.00
GDO0804P-221M	220.00	0.610	5.0	0.80	0.80
GDO0804P-331M	330.00	1.020	4.5	0.60	0.60
GDO0804P-471M	470.00	1.270	3.5	0.50	0.50
GDO0804P-681M	680.00	2.020	2.5	0.40	0.40
GDO0804P-102M	1000.00	3.000	2.0	0.30	0.30

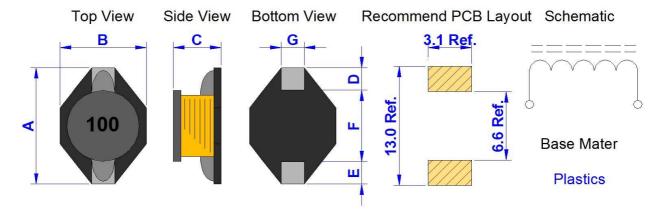
^{*} Test @100KHz, 1Vrms

^{*} Isat = L value 10% drop

^{*} Irms = Tempereture 40 deg.C Rise

GDO0810P-SERIES

Dimension [mm] :



Size	A [Max.]	B [Max.]	C [Max.]	D [+/-0.3]	E [+/-0.3]	F [+/-1.0]	G [+/-0.3]
0810	12.95	9.4	11.43	2.50	2.50	7.20	2.50

Part No.	L (uH) +/-20%	DCR (Ohm) Max.	SRF (MHz) Typ.	Isat (A) Typ.	Irms (A) Typ.
GDO0810P-1R0N	1.00+/-30%	0.009	30.0	16.00	9.20
GDO0810P-1R2N	1.20+/-30%	0.009	28.0	15.00	9.00
GDO0810P-1R5M	1.50	0.010	28.0	15.00	8.00
GDO0810P-2R0M	2.00	0.012	27.0	14.00	7.00
GDO0810P-2R2M	2.20	0.012	27.0	14.00	7.00
GDO0810P-3R3M	3.30	0.013	26.0	12.00	6.00
GDO0810P-4R7M	4.70	0.018	25.0	10.00	4.00
GDO0810P-6R3M	6.30	0.038	25.0	10.00	3.80
GDO0810P-6R8M	6.80	0.039	23.0	9.00	3.60
GDO0810P-8R2M	8.20	0.040	22.5	8.00	3.60
GDO0810P-100M	10.00	0.040	22.0	8.00	3.50
GDO0810P-150M	15.00	0.050	18.0	7.00	3.00
GDO0810P-220M	22.00	0.070	11.0	5.50	2.50
GDO0810P-270M	27.00	0.075	10.0	5.00	2.30
GDO0810P-330M	33.00	0.080	9.0	4.00	2.00
GDO0810P-470M	47.00	0.110	8.0	3.80	1.60
GDO0810P-680M	68.00	0.170	7.0	3.00	1.20
GDO0810P-101M	100.00	0.220	5.0	2.50	1.20
GDO0810P-151M	150.00	0.340	4.0	2.00	0.90
GDO0810P-221M	220.00	0.440	3.5	1.60	0.70
GDO0810P-331M	330.00	0.700	2.5	1.20	0.60
GDO0810P-471M	470.00	0.950	2.0	1.00	0.30
GDO0810P-681M	680.00	1.200	2.0	1.00	0.20
GDO0810P-102M	1000.00	2.000	1.50	0.80	0.10

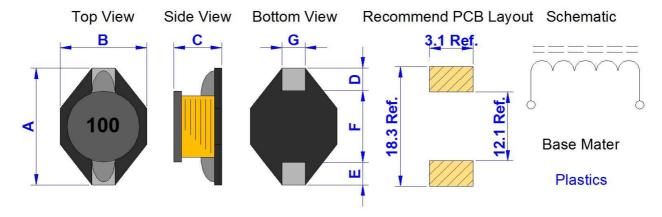
^{*} Test @100KHz, 1Vrms

^{*} Isat = L value 10% drop

^{*} Irms = Tempereture 40 deg.C Rise

GDO1306P-SERIES

Dimension [mm] :



Size	A [Max.]	B [Max.]	C [Max.]	D [+/-0.3]	E [+/-0.3]	F [+/-1.0]	G [+/-0.3]
1306	18.54	15.24	7.11	2.50	2.50	12.70	2.50

Part No.	L (uH) +/-20%	DCR (Ohm) Max.	SRF (MHz) Typ.	Isat (A) Typ.	Irms (A) Typ.
GDO1306P-1R0M	1.00	0.009	80.0	20.00	8.60
GDO1306P-2R2M	2.20	0.014	80.0	16.00	7.10
GDO1306P-3R3M	3.30	0.018	60.0	14.00	6.20
GDO1306P-5R6M	5.60	0.020	40.0	12.00	5.30
GDO1306P-100M	10.00	0.031	30.0	10.00	4.30
GDO1306P-150M	15.00	0.036	22.0	8.00	4.00
GDO1306P-220M	22.00	0.047	20.0	7.00	3.50
GDO1306P-330M	33.00	0.066	15.0	5.50	3.00
GDO1306P-470M	47.00	0.086	9.0	4.50	2.60
GDO1306P-680M	68.00	0.130	8.0	3.50	2.30
GDO1306P-101M	100.00	0.190	7.0	3.00	1.80
GDO1306P-151M	150.00	0.250	6.0	2.60	1.50
GDO1306P-221M	220.00	0.380	5.0	2.40	1.20
GDO1306P-331M	330.00	0.560	4.0	1.90	1.00
GDO1306P-471M	470.00	0.850	3.0	1.40	0.82
GDO1306P-681M	680.00	1.100	2.5	1.20	0.72
GDO1306P-102M	1000.00	1.800	2.0	1.00	0.56
GDO1306P-152M	1500.00	2.660	/	0.80	0.46
GDO1306P-222M	2200.00	4.300	/	0.60	0.36
GDO1306P-332M	3300.00	6.600	/	0.30	0.29
GDO1306P-472M	4700.00	9.700	/	0.09	0.24
GDO1306P-682M	6800.00	11.500	/	0.07	0.22
GDO1306P-722M	7200.00	12.200	/	0.06	0.21

^{*} Test @100KHz, 1Vrms

^{*} Isat = L value 10% drop

^{*} Irms = Tempereture 40 deg.C Rise

Product Series :	GDO	Brand :	GOTREND
File Version :	GDO-SERIES-V3R3	Editor :	Teddy Sun
Established Date :	2009.08.04	Description :	Ferrite Core With Plastic Base Inductor
Latest Edit Date :	2020.10.30	Product Type :	☑ Standard ☐ 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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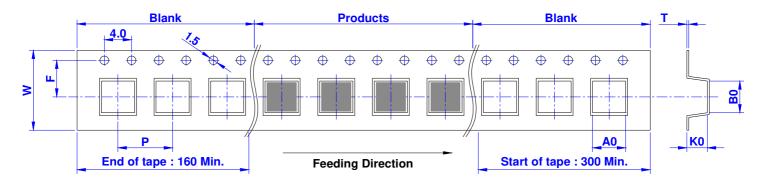
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Latest Edit Data	2020 10 20	Product Type	El Standard El Custamiza

Reliability:

SN	Test Item		Test Condition		Specification
1	Dimension	Actual Size			Meet Spec
2	Thermal Shock (Temperature Cycle)	Temperature : -40 \sim +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% ~ Temperature: 60	- 95% RH 0 ± 2 deg.C,Test Time:	96 ± 2 Hours	Elec. no variation Appearance no deformation
4	HighTemperature	Temperature : 12 Testing Time : 9			Elec. no variation Appearance no deformation
5	Low Temperature	Temperature : -4 Time : 96 ± 2 Ho			Elec. no variation Appearance no deformation
6	Temperature and Humidity Cycle	Temperature 25 deg.C 55 deg.C 25 deg.C Cycle: 20 Cycle	Humidity 90% ~ 95% RH 95% ~ 96% RH 90% ~ 95% RH	Time 3.0 Hr 5.0 Hr 3.0 Hr	Elec. no variation Appearance no deformation
7	Vibration	Frequency : 10H	z ~ 55Hz , Amplitude : 1. , Z , Time : 2 Hours eacl		Elec. no variation Appearance no deformation
8	Solderability	The profile like of Preheat: 160 ± 17 Peak: 245 ± 5 d	SMT IR-Reflow our suggest profile. 10 deg.C (90 sec) eg.C Sec. / up 217 deg.C	Elec. no variation Appearance no deformation	
9	Soldering Heat Resistance	Solder : Sn / Ag	10 deg.C(90 sec) / Cu(Pb Free) :60 ± 5 deg.C,Time:3 ±	Elec. no variation Appearance no deformation	
10	Iron Solder Heat Resistance	Solder Temp. : 3 Flux : Rosin, Tir	50 ± 5 deg.C me : 3 ± 1 seconds		Elec. no variation Appearance no deformation
11	Bending Strength	Unit : mm	10 x 10 R:	0.5	Elec. no variation Appearance no deformation
12	Flexure Strength	Unit : mm			Elec. no variation Appearance no deformation
13	Terminal Strength	Mount on I Solder Cre	KXXI	ION force to X , Y on	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 Load : Allowed D	5 ± 3 deg.C DC Current,Test Time : 9	96 ± 2 Hours	Elec. no variation Appearance no deformation

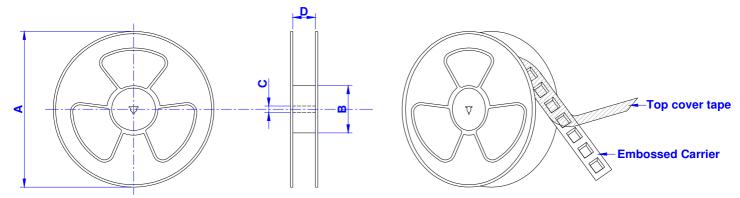
Packaging Information:

Tape Dimension (mm):



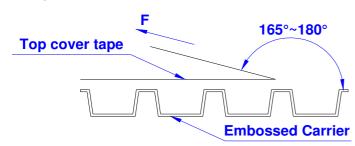
SIZE/mm	W	Р	A0	B0	K0	Т	F
0402	16.00	8.00	4.80	7.20	3.30	0.35	11.50
0802	24.00	12.00	9.65	13.80	3.50	0.35	11.50
0804	24.00	12.00	9.65	13.80	6.50	0.35	11.50
0810	24.00	20.00	9.50	13.80	11.80	0.50(+/-0.01)	11.50
1306	32.00	20.00	15.80	19.20	8.50	0.35	11.50

Reel Dimension (mm):



SIZE/mm	Reel Size	Α	В	С	D	QTY / Reel
0402	7"/13" x 16 mm	178 / 330	60 / 100	13	16.5	700 / 2500 PCS
0802	13" x 24 mm	330	100	13	24.5	1000 PCS
0804	13" x 24 mm	330	100	13	24.5	1000 PCS
0810	13" x 24 mm	330	100	13	24.5	225 PCS
1306	13" x 32 mm	330	100	13	32.5	250PCS

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).

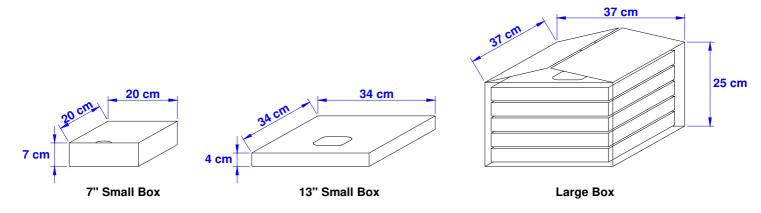
Room Temp. (deg.C)	Room Humidity	Room Atm. (hPa)	Tearing Speed (mm / min)
5 ~ 35	45 ~ 85	860 ~ 1060	300

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Product Series :	GDO	Brand :	GOTREND
File Version :	GDO-SERIES-V3R3	Editor :	Teddy Sun
Established Date :	2009.08.04	Description :	Ferrite Core With Plastic Base Inductor
Latest Edit Date :	2020.10.30	Product Type :	☑ Standard ☐ Customize

Packaging Information:

Box Package:



SIZE/mm	Reels in Small Box	Small Box in Large Box
0402	4 (7") / 1 (13")	8 (7") / 5 (13")
0802	1	5
0804	1	5
0810	1	5
1306	1	5

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