



<b>Product Series :</b> GBD	<b>Brand :</b> GOTREND
<b>File Version :</b> GBD-SERIES-AE-V5R7	<b>Editor :</b> David Wang
<b>Established Date :</b> 2009.07.24	<b>Description :</b> Multilayer Ferrite Chip Bead
<b>Latest Edit Date :</b> 2021.11.04	<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.
- ◆ This catalogue only applies to products purchased through GOTREND Technology 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.



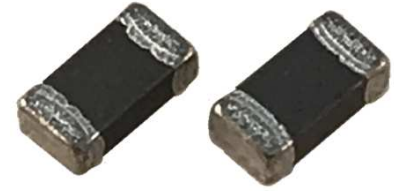
- ◆ It is not recommended to use hot air gun for disassembling of this product. When using of hot air gun to repair other parts, please also take note that long time or high temperature exposure of this product will also damage the inductance device. If you need to use the hot air gun to disassemble 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 :**

- \* EMI Suppressor for Wide Band / Narrow Band / High Current
- \* 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	:	<b>GBD</b>	<b>201209</b>	<b>P</b>	<b>GA</b>	<b>601</b>	<b>N</b>	-	<b>AE</b>
-----		-----	-----	---	-----	-----	---		----
ID	:	1	2	3	4	5	6		7
1	:	GBD : GOTREND Series							
2	:	201209 : Length 2.0mm X Width 1.2mm x Height 0.9mm							
3	:	P : Pb < 1000ppm							
4	:	GA : Normal Curve ( General purpose use ) GB : Sharp Curve ( Narrow band ) GH : High-Current GF : High-Frequency							
5	:	601 : Impedance (ohm) = 600 ohm							
6	:	N : Tolerance M = +/-20%, N = +/-25%							
7	:	[ AE ] : Reliability comply with AEC-Q200 standard type.							

**Basic Information :**

<b>Made in</b>	Taiwan / China
<b>Pin Foot</b>	SMD
<b>Shielding</b>	Yes
<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 °C ( Including self - temperature rise )
- \* Storage Temp 1. -10 ~ +45 °C , 50 ~ 60% RH ( Product with taping )  
2. -40 ~ +125 °C ( On board )
- \* Storage Life Time 6 Month ( Less than 40 °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



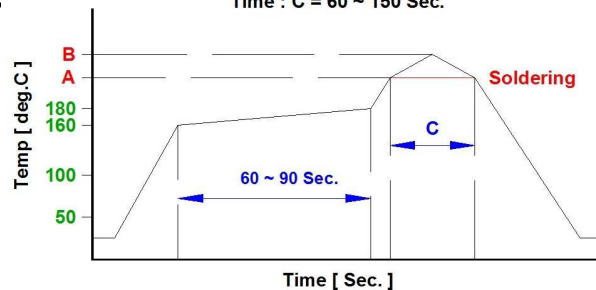
- \* Pin foot or SMD pad solderability: Pb free type is best within 6 months after delivery
- \* Humidity sensitive , IPC/JEDEC J-STD-020 MSL if over Level 1, recommend bake 30mins@150 degree before PCBA
- \* Caution for human life relative applications : PLS contact & consult with GOTREND team in design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

**Test Condition :**

- \* Equipment HP4284A , HP42841A - L , Q , DCR , IDC  
HP8753D Network analyzer - SRF
- \* Standard Atmosphere Conditions:  
Ambient Temperature 20 ± 15 °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**

Lead Free Solder : A = 217 deg.C , B = 245+/-5 deg.C  
Time : C = 60 ~ 150 Sec.

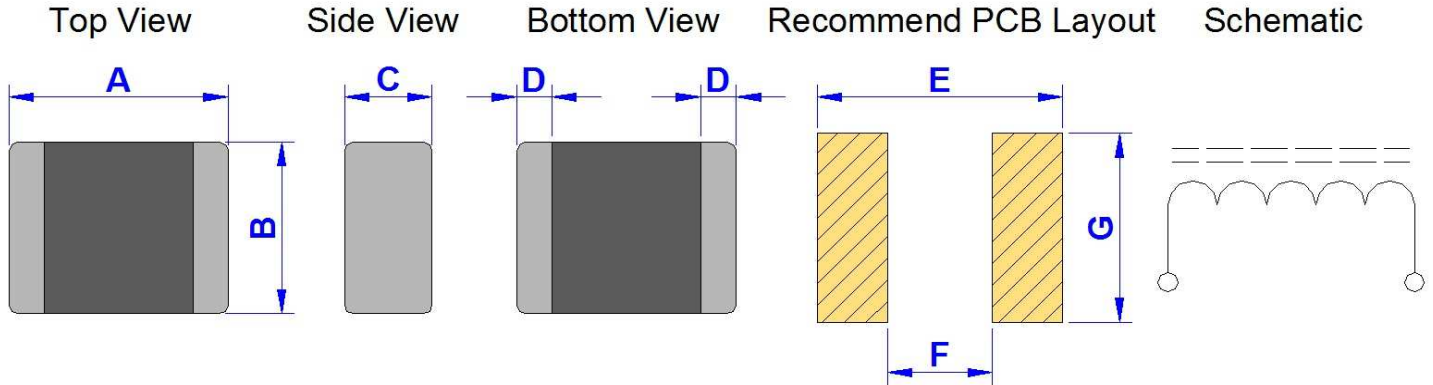


Notice : Iron Soldering , Solder < 30 Watt ,  
Direct touch the terminal x 3 Sec. Max. @ 350 deg.C

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**GBD060303PGA-SERIES-AE**

**Dimension [ mm ] :**



Size	A (+/-0.03)	B (+/-0.03)	C (+/-0.03)	D (Typ.)	E (Ref.)	F (Ref.)	G (Ref.)
060303	0.60	0.30	0.30	0.10 ~ 0.20	0.70	0.30	0.40

**Electrical Characteristics :**

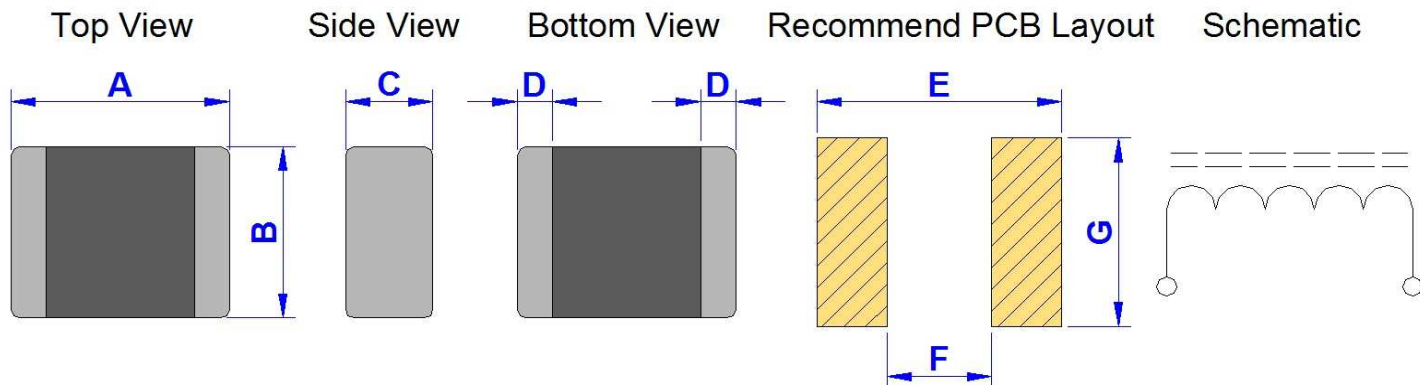
Part No.	Z - Value (Ohm) (+/- 25%)	Test Freq. (MHz) / 0.5V	DCR (Ohm) (Max.)	Rated Current (mA) (Max.)
GBD060303PGA121N-AE	120	100	0.45	200
GBD060303PGA151N-AE	150	100	0.50	200

\* Rated Current based on increasing product temperature : Current when temperature of the product reaches +40 °C .

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**GBD100505PGA-SERIES-AE**

**Dimension [ mm ] :**



Size	A (+/-0.15)	B (+/-0.15)	C (+/-0.15)	D (+/-0.15)	E (Ref.)	F (Ref.)	G (Ref.)
100505	1.00	0.50	0.50	0.25	1.10	0.40	0.60

**Electrical Characteristics :**

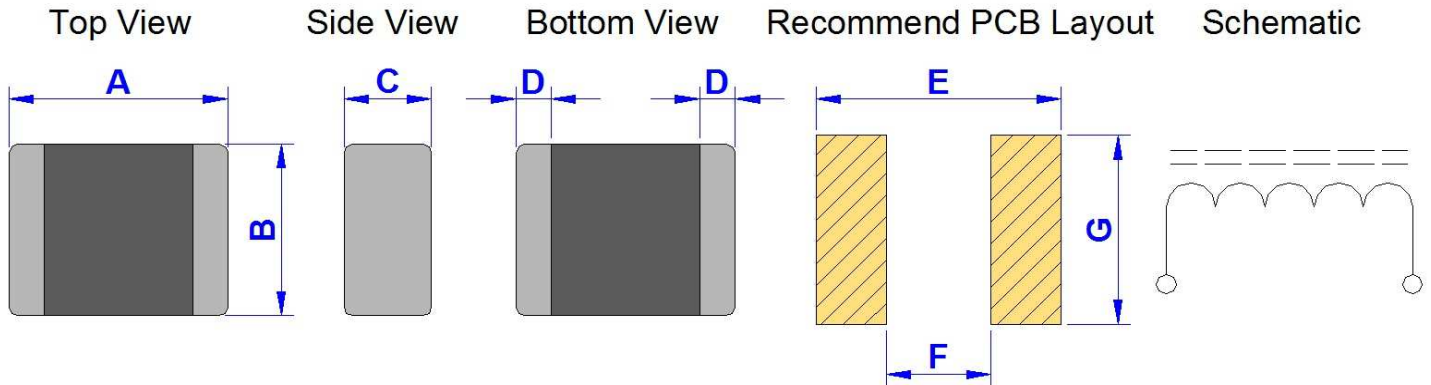
Part No.	Z - Value (Ohm) (+/- 25%)	Test Freq. (MHz) / 0.5V	DCR (Ohm) (Max.)	Rated Current (mA) (Max.)
GBD100505PGA060N-AE	6	100	0.05	500
GBD100505PGA100N-AE	10	100	0.05	500
GBD100505PGA300N-AE	30	100	0.20	300
GBD100505PGA330N-AE	33	100	0.20	300
GBD100505PGA400N-AE	40	100	0.30	300
GBD100505PGA470N-AE	47	100	0.20	500
GBD100505PGA600N-AE	60	100	0.40	200
GBD100505PGA750N-AE	75	100	0.40	300
GBD100505PGA800N-AE	80	100	0.40	200
GBD100505PGA101N-AE	100	100	0.45	200
GBD100505PGA121N-AE	120	100	0.50	200
GBD100505PGA221N-AE	220	100	0.50	200
GBD100505PGA241N-AE	240	100	0.50	200
GBD100505PGA301N-AE	300	100	0.75	100
GBD100505PGA481N-AE	480	100	0.80	200
GBD100505PGA601N-AE	600	100	1.00	200
GBD100505PGA102N-AE	1000	100	1.50	100
GBD100505PGA152N-AE	1500	100	2.00	60

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**GBD160808PGA-SERIES-AE**

**Dimension [ mm ] :**



Size	A (+/-0.15)	B (+/-0.15)	C (+/-0.15)	D (+/-0.20)	E (Ref.)	F (Ref.)	G (Ref.)
160808	1.60	0.80	0.80	0.40	1.80	0.60	1.00

**Electrical Characteristics :**

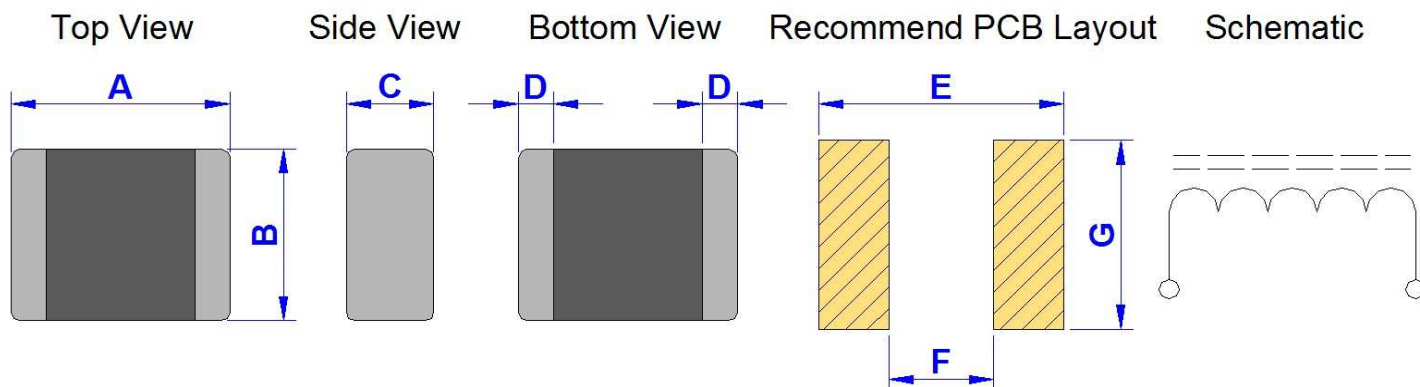
Part No.	Z - Value (Ohm) (+/- 25%)	Test Freq. (MHz) / 0.5V	DCR (Ohm) (Max.)	Rated Current (mA) (Max.)
GBD160808PGA060N-AE	6	100	0.05	500
GBD160808PGA100N-AE	10	100	0.02	500
GBD160808PGA110N-AE	11	100	0.05	500
GBD160808PGA190N-AE	19	100	0.08	500
GBD160808PGA220N-AE	22	100	0.10	400
GBD160808PGA250N-AE	25	100	0.10	400
GBD160808PGA260N-AE	26	100	0.10	400
GBD160808PGA300N-AE	30	100	0.10	400
GBD160808PGA310N-AE	31	100	0.10	400
GBD160808PGA400N-AE	40	100	0.10	400
GBD160808PGA470N-AE	47	100	0.10	300
GBD160808PGA500N-AE	50	100	0.10	300
GBD160808PGA600N-AE	60	100	0.10	300
GBD160808PGA700N-AE	70	100	0.15	300
GBD160808PGA750N-AE	75	100	0.15	300
GBD160808PGA800N-AE	80	100	0.15	300
GBD160808PGA900N-AE	90	100	0.20	300
GBD160808PGA101N-AE	100	100	0.20	300
GBD160808PGA121N-AE	120	100	0.25	300
GBD160808PGA151N-AE	150	100	0.30	200
GBD160808PGA181N-AE	180	100	0.30	200
GBD160808PGA201N-AE	200	100	0.30	200
GBD160808PGA221N-AE	220	100	0.30	200
GBD160808PGA241N-AE	240	100	0.40	200
GBD160808PGA301N-AE	300	100	0.40	200
GBD160808PGA331N-AE	330	100	0.50	200

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**GBD160808PGA-SERIES-AE**

**Dimension [ mm ] :**



Size	A (+/-0.15)	B (+/-0.15)	C (+/-0.15)	D (+/-0.20)	E (Ref.)	F (Ref.)	G (Ref.)
160808	1.60	0.80	0.80	0.40	1.80	0.60	1.00

**Electrical Characteristics :**

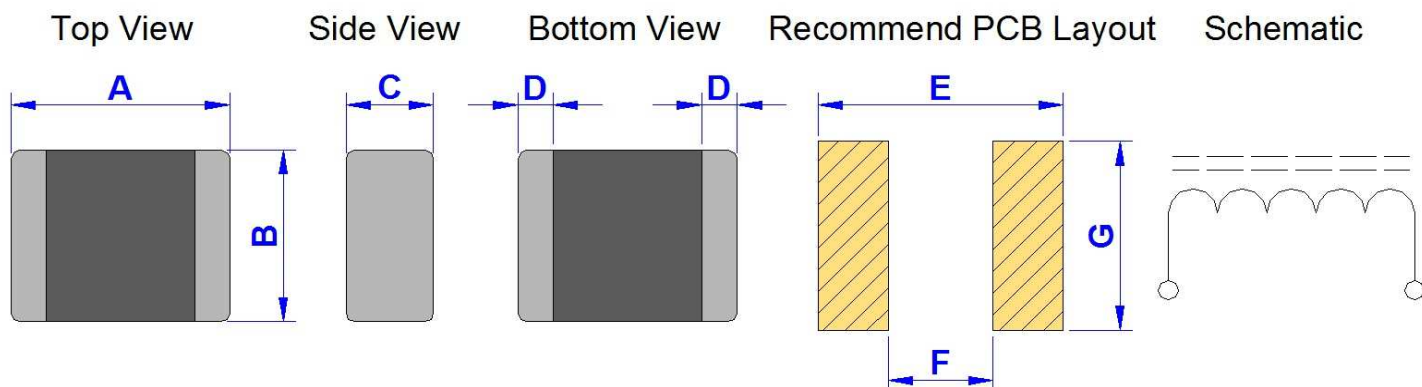
Part No.	Z - Value (Ohm) (+/- 25%)	Test Freq. (MHz) / 0.5V	DCR (Ohm) (Max.)	Rated Current (mA) (Max.)
GBD160808PGA401N-AE	400	100	0.30	400
GBD160808PGA451N-AE	450	100	0.50	200
GBD160808PGA471N-AE	470	100	0.50	200
GBD160808PGA501N-AE	500	100	0.50	200
GBD160808PGA601N-AE	600	100	0.50	200
GBD160808PGA751N-AE	750	100	0.70	200
GBD160808PGA102N-AE	1000	100	0.70	200
GBD160808PGA152N-AE	1500	100	1.00	50
GBD160808PGA222N-AE	2200	100	1.20	50
GBD160808PGA252N-AE	2500	100	1.30	50

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**GBD201209PGA-SERIES-AE**

**Dimension [ mm ] :**



Size	A (+/-0.20)	B (+/-0.20)	C (+/-0.20)	D (+/-0.30)	E (Ref.)	F (Ref.)	G (Ref.)
201209	2.00	1.25	0.90	0.50	2.30	1.30	1.30

**Electrical Characteristics :**

Part No.	Z - Value (Ohm) (+/- 25%)	Test Freq. (MHz) / 0.5V	DCR (Ohm) (Max.)	Rated Current (mA) (Max.)
GBD201209PGA070N-AE	7	100	0.10	600
GBD201209PGA090N-AE	9	100	0.10	600
GBD201209PGA110N-AE	11	100	0.10	600
GBD201209PGA170N-AE	17	100	0.10	600
GBD201209PGA190N-AE	19	100	0.10	600
GBD201209PGA220N-AE	22	100	0.10	600
GBD201209PGA260N-AE	26	100	0.10	600
GBD201209PGA300N-AE	30	100	0.10	600
GBD201209PGA310N-AE	31	100	0.10	600
GBD201209PGA320N-AE	32	100	0.10	300
GBD201209PGA400N-AE	40	100	0.10	500
GBD201209PGA470N-AE	47	100	0.10	500
GBD201209PGA500N-AE	50	100	0.10	500
GBD201209PGA600N-AE	60	100	0.15	500
GBD201209PGA700N-AE	70	100	0.15	500
GBD201209PGA800N-AE	80	100	0.15	500
GBD201209PGA900N-AE	90	100	0.15	500
GBD201209PGA101N-AE	100	100	0.25	300
GBD201209PGA121N-AE	120	100	0.25	300
GBD201209PGA151N-AE	150	100	0.25	300
GBD201209PGA201N-AE	200	100	0.30	300
GBD201209PGA221N-AE	220	100	0.30	300
GBD201209PGA301N-AE	300	100	0.30	300
GBD201209PGA331N-AE	330	100	0.30	300
GBD201209PGA401N-AE	400	100	0.30	300
GBD201209PGA451N-AE	450	100	0.40	300

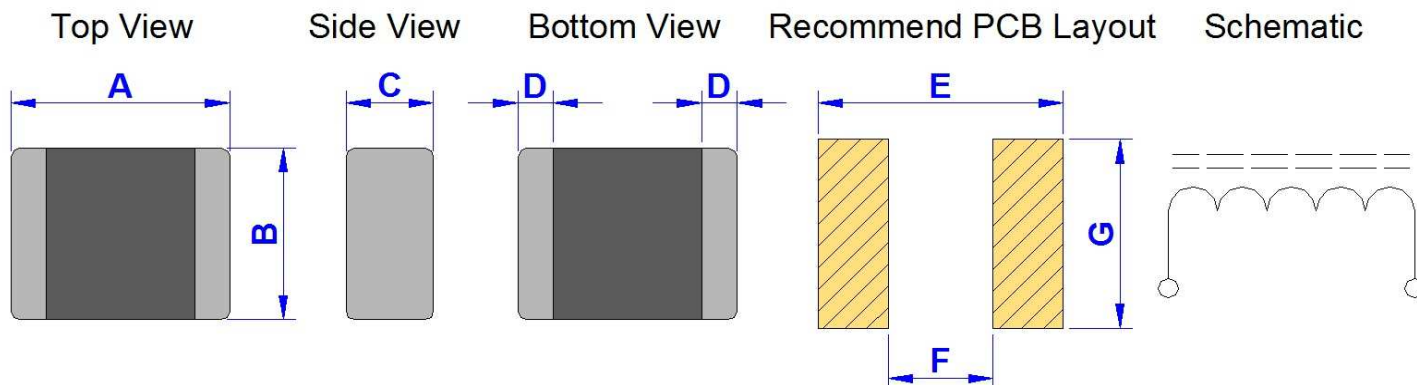
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**GBD201209PGA-SERIES-AE**

**Dimension [ mm ] :**



Size	A (+/-0.20)	B (+/-0.20)	C (+/-0.20)	D (+/-0.30)	E (Ref.)	F (Ref.)	G (Ref.)
201209	2.00	1.25	0.90	0.50	2.30	1.30	1.30

**Electrical Characteristics :**

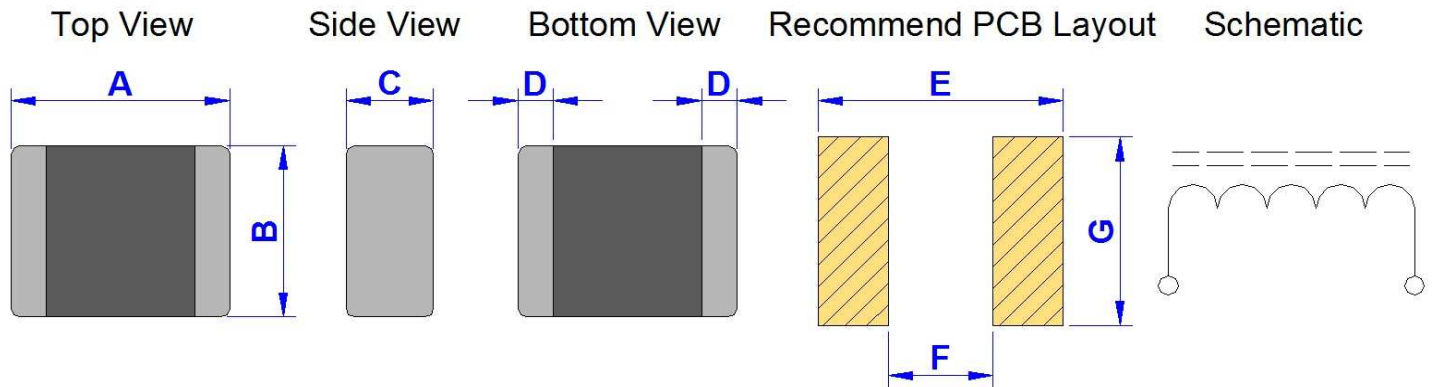
Part No.	Z - Value (Ohm) (+/- 25%)	Test Freq. (MHz) / 0.5V	DCR (Ohm) (Max.)	Rated Current (mA) (Max.)
GBD201209PGA471N-AE	470	100	0.40	300
GBD201209PGA501N-AE	500	100	0.40	300
GBD201209PGA601N-AE	600	100	0.40	300
GBD201209PGA751N-AE	750	100	0.50	200
GBD201209PGA102N-AE	1000	100	0.50	200
GBD201209PGA122N-AE	1200	100	0.60	200
GBD201209PGA152N-AE	1500	100	0.60	200
GBD201209PGA202N-AE	2000	100	0.60	200
GBD201209PGA222N-AE	2200	100	0.60	200
GBD201209PGA252N-AE	2500	100	0.70	200
GBD201209PGA272N-AE	2700	100	0.70	200

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**GBD321611PGA-SERIES-AE**

**Dimension [ mm ] :**



Size	A (+/-0.20)	B (+/-0.20)	C (+/-0.20)	D (+/-0.30)	E (Ref.)	F (Ref.)	G (Ref.)
321611	3.20	1.60	1.10	0.70	4.40	2.20	2.06

**Electrical Characteristics :**

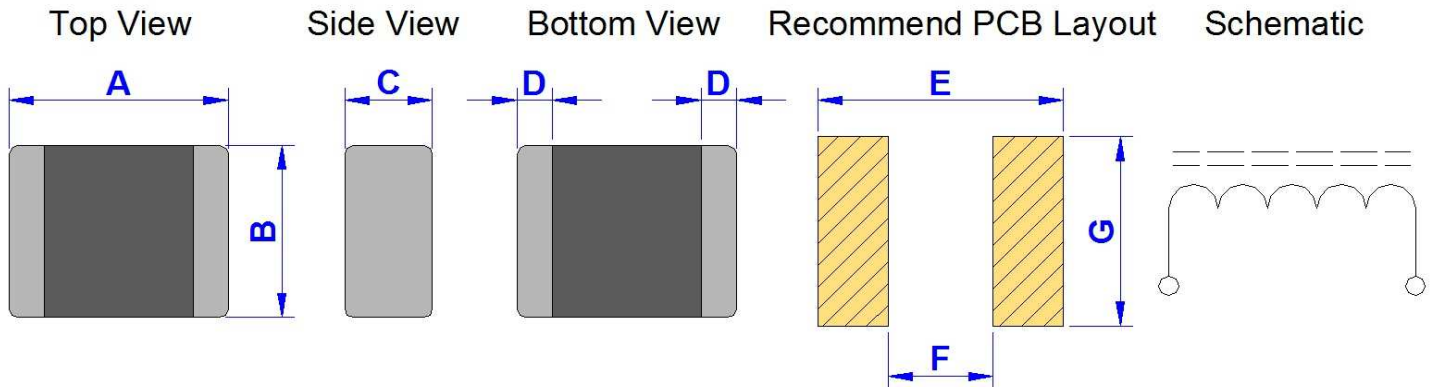
Part No.	Z - Value (Ohm) (+/- 25%)	Test Freq. (MHz) / 0.5V	DCR (Ohm) (Max.)	Rated Current (mA) (Max.)
GBD321611PGA110N-AE	11	100	0.05	600
GBD321611PGA190N-AE	19	100	0.05	600
GBD321611PGA260N-AE	26	100	0.05	600
GBD321611PGA300N-AE	30	100	0.05	600
GBD321611PGA310N-AE	31	100	0.05	600
GBD321611PGA320N-AE	32	100	0.05	600
GBD321611PGA470N-AE	47	100	0.10	500
GBD321611PGA500N-AE	50	100	0.10	500
GBD321611PGA600N-AE	60	100	0.10	500
GBD321611PGA700N-AE	70	100	0.10	500
GBD321611PGA800N-AE	80	100	0.15	500
GBD321611PGA900N-AE	90	100	0.15	500
GBD321611PGA101N-AE	100	100	0.15	500
GBD321611PGA121N-AE	120	100	0.15	500
GBD321611PGA151N-AE	150	100	0.15	500
GBD321611PGA201N-AE	200	100	0.20	400
GBD321611PGA221N-AE	220	100	0.20	400
GBD321611PGA301N-AE	300	100	0.20	400
GBD321611PGA401N-AE	400	100	0.20	400
GBD321611PGA471N-AE	470	100	0.20	400
GBD321611PGA501N-AE	500	100	0.20	400
GBD321611PGA601N-AE	600	100	0.30	400
GBD321611PGA102N-AE	1000	50	0.40	200
GBD321611PGA122N-AE	1200	50	0.40	200
GBD321611PGA152N-AE	1500	50	0.45	200
GBD321611PGA202N-AE	2000	30	0.60	200
GBD321611PGA272N-AE	2700	30	0.60	200

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**GBD321616PGA-SERIES-AE**

Dimension [ mm ] :



Size	A (+/-0.20)	B (+/-0.20)	C (+/-0.20)	D (+/-0.20)	E (Ref.)	F (Ref.)	G (Ref.)
321616	3.20	1.60	1.60	0.51	4.40	2.20	2.06

**Electrical Characteristics :**

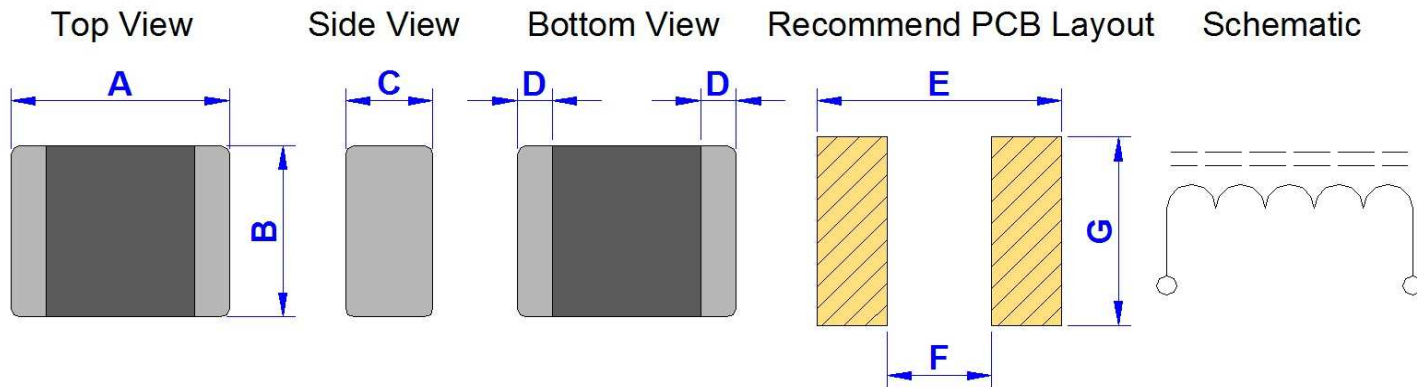
Part No.	Z - Value (Ohm) (+/- 25%)	Test Freq. (MHz) / 0.5V	DCR (Ohm) (Max.)	Rated Current (mA) (Max.)
GBD321616PGA250N-AE	25	100	0.10	500
GBD321616PGA600N-AE	60	100	0.20	500
GBD321616PGA700N-AE	70	100	0.20	500

\* Rated Current based on increasing product temperature : Current when temperature of the product reaches +40 °C .

Product Series : GBD	Brand : GOTREND
File Version : GBD-SERIES-AE-V5R7	Editor : David Wang
Established Date : 2009.07.24	Description : Multilayer Ferrite Chip Bead
Latest Edit Date : 2021.11.04	Product Type : <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Customize

**GBD322513PGA-SERIES-AE**

Dimension [ mm ] :



Size	A (+/-0.20)	B (+/-0.20)	C (+/-0.20)	D (+/-0.20)	E (Ref.)	F (Ref.)	G (Ref.)
322513	3.20	2.50	1.30	0.80	4.06	2.13	2.74

**Electrical Characteristics :**

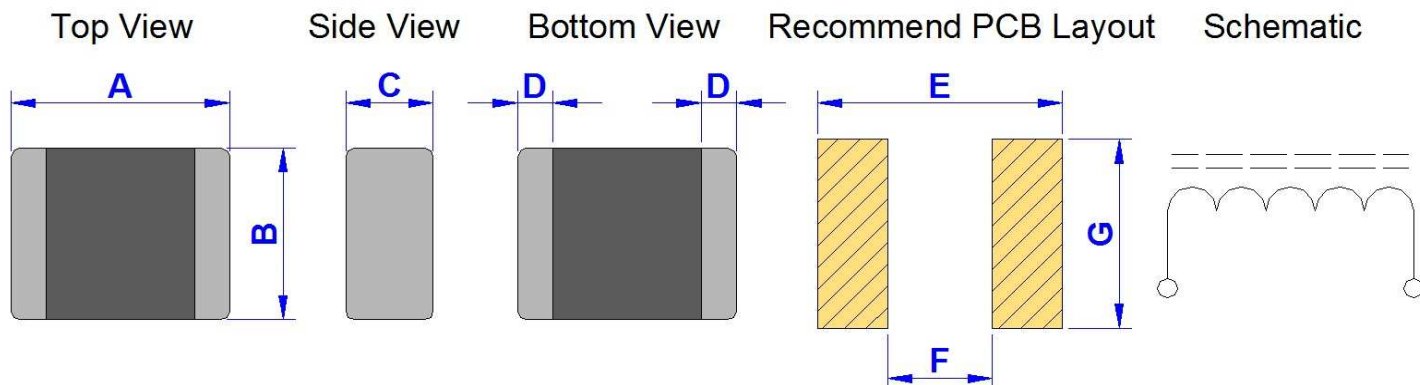
Part No.	Z - Value (Ohm) (+/- 25%)	Test Freq. (MHz) / 0.5V	DCR (Ohm) (Max.)	Rated Current (mA) (Max.)
GBD322513PGA320N-AE	32	100	0.20	500
GBD322513PGA600N-AE	60	100	0.20	500
GBD322513PGA900N-AE	90	100	0.20	500

\* Rated Current based on increasing product temperature : Current when temperature of the product reaches +40 °C .

<b>Product Series :</b> GBD	<b>Brand :</b> GOTREND
<b>File Version :</b> GBD-SERIES-AE-V5R7	<b>Editor :</b> David Wang
<b>Established Date :</b> 2009.07.24	<b>Description :</b> Multilayer Ferrite Chip Bead
<b>Latest Edit Date :</b> 2021.11.04	<b>Product Type :</b> <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Customize

**GBD451616PGA-SERIES-AE**

**Dimension [ mm ] :**



Size	A (+/-0.20)	B (+/-0.20)	C (+/-0.20)	D (+/-0.20)	E (Ref.)	F (Ref.)	G (Ref.)
451616	4.50	1.60	1.60	0.80	5.70	2.70	2.24

**Electrical Characteristics :**

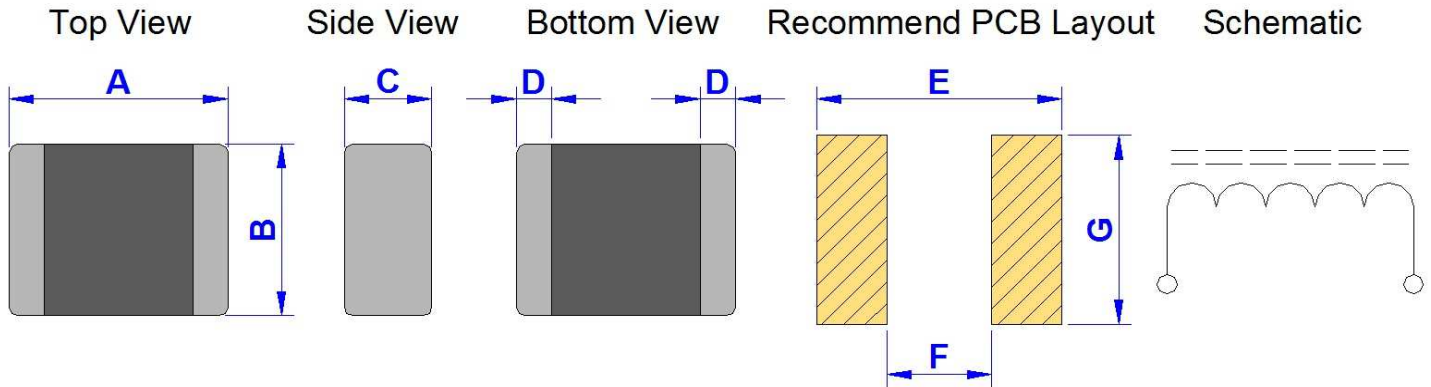
Part No.	Z - Value (Ohm) (+/- 25%)	Test Freq. (MHz) / 0.5V	DCR (Ohm) (Max.)	Rated Current (mA) (Max.)
GBD451616PGA500N-AE	50	100	0.20	600
GBD451616PGA600N-AE	60	100	0.20	600
GBD451616PGA800N-AE	80	100	0.20	600
GBD451616PGA101N-AE	100	100	0.30	500
GBD451616PGA151N-AE	150	100	0.30	500
GBD451616PGA171N-AE	170	100	0.30	500

\* Rated Current based on increasing product temperature : Current when temperature of the product reaches +40 °C .

Product Series : GBD	Brand : GOTREND
File Version : GBD-SERIES-AE-V5R7	Editor : David Wang
Established Date : 2009.07.24	Description : Multilayer Ferrite Chip Bead
Latest Edit Date : 2021.11.04	Product Type : <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Customize

**GBD453215PGA-SERIES-AE**

Dimension [ mm ] :



Size	A (+/-0.20)	B (+/-0.20)	C (+/-0.20)	D (+/-0.20)	E (Ref.)	F (Ref.)	G (Ref.)
453215	4.50	3.20	1.50	0.80	5.90	2.57	4.22

Electrical Characteristics :

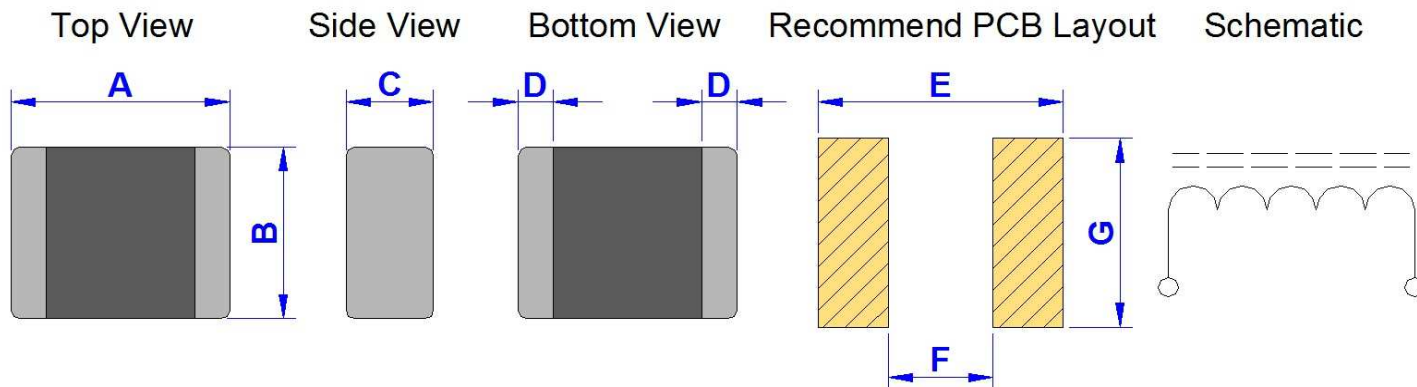
Part No.	Z - Value (Ohm) (+/- 25%)	Test Freq. (MHz) / 0.5V	DCR (Ohm) (Max.)	Rated Current (mA) (Max.)
GBD453215PGA700N-AE	70	100	0.30	500
GBD453215PGA121N-AE	120	100	0.30	500

\* Rated Current based on increasing product temperature : Current when temperature of the product reaches +40 °C .

<b>Product Series :</b> GBD	<b>Brand :</b> GOTREND
<b>File Version :</b> GBD-SERIES-AE-V5R7	<b>Editor :</b> David Wang
<b>Established Date :</b> 2009.07.24	<b>Description :</b> Multilayer Ferrite Chip Bead
<b>Latest Edit Date :</b> 2021.11.04	<b>Product Type :</b> <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Customize

**GBD100505PGB-SERIES-AE**

**Dimension [ mm ] :**



Size	A (+/-0.15)	B (+/-0.15)	C (+/-0.15)	D (+/-0.15)	E (Ref.)	F (Ref.)	G (Ref.)
100505	1.00	0.50	0.50	0.25	1.10	0.40	0.60

**Electrical Characteristics :**

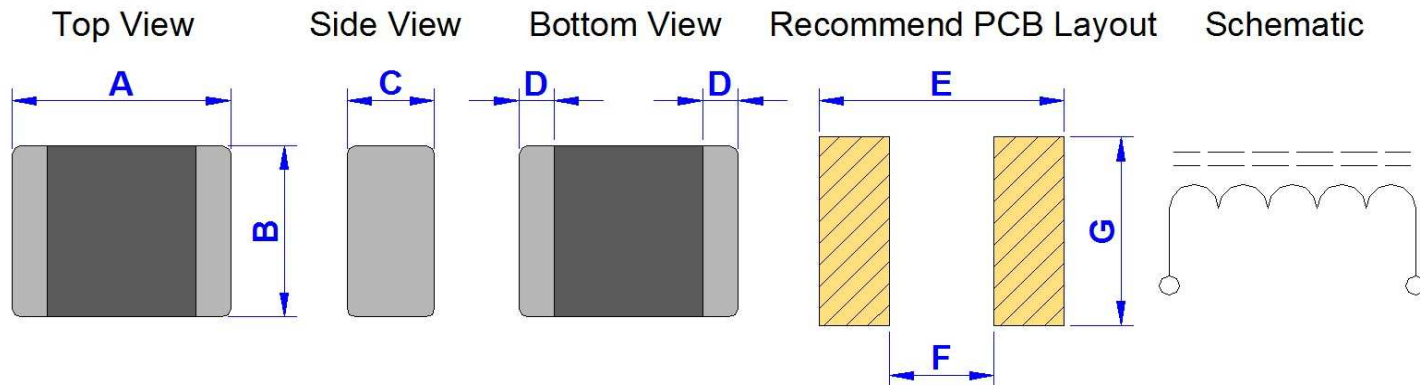
Part No.	Z - Value (Ohm) (+/- 25%)	Test Freq. (MHz) / 0.5V	DCR (Ohm) (Max.)	Rated Current (mA) (Max.)
GBD100505PGB060N-AE	6	100	0.10	300
GBD100505PGB100N-AE	10	100	0.20	200
GBD100505PGB400N-AE	40	100	0.40	150
GBD100505PGB800N-AE	80	100	0.60	100
GBD100505PGB121N-AE	120	100	0.80	50

\* Rated Current based on increasing product temperature : Current when temperature of the product reaches +40 °C .

<b>Product Series :</b> GBD	<b>Brand :</b> GOTREND
<b>File Version :</b> GBD-SERIES-AE-V5R7	<b>Editor :</b> David Wang
<b>Established Date :</b> 2009.07.24	<b>Description :</b> Multilayer Ferrite Chip Bead
<b>Latest Edit Date :</b> 2021.11.04	<b>Product Type :</b> <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Customize

**GBD160808PGB-SERIES-AE**

**Dimension [ mm ] :**



Size	A (+/-0.15)	B (+/-0.15)	C (+/-0.15)	D (+/-0.20)	E (Ref.)	F (Ref.)	G (Ref.)
160808	1.60	0.80	0.80	0.40	1.80	0.60	1.00

**Electrical Characteristics :**

Part No.	Z - Value (Ohm) (+/- 25%)	Test Freq. (MHz) / 0.5V	DCR (Ohm) (Max.)	Rated Current (mA) (Max.)
GBD160808PGB060N-AE	6	100	0.05	500
GBD160808PGB100N-AE	10	100	0.07	400
GBD160808PGB300N-AE	30	100	0.30	300
GBD160808PGB400N-AE	40	100	0.30	300
GBD160808PGB470N-AE	47	100	0.30	300
GBD160808PGB600N-AE	60	100	0.30	300
GBD160808PGB750N-AE	75	100	0.40	300
GBD160808PGB800N-AE	80	100	0.40	300
GBD160808PGB101N-AE	100	100	0.40	300
GBD160808PGB121N-AE	120	100	0.40	300
GBD160808PGB131N-AE	130	100	0.40	300
GBD160808PGB151N-AE	150	100	0.40	300
GBD160808PGB221N-AE	220	100	0.40	200
GBD160808PGB241N-AE	240	100	0.40	200
GBD160808PGB301N-AE	300	100	0.50	200
GBD160808PGB481N-AE	480	100	0.60	150
GBD160808PGB601N-AE	600	100	0.60	100
GBD160808PGB102N-AE	1000	100	0.70	100
GBD160808PGB152N-AE	1500	100	0.80	100
GBD160808PGB182N-AE	1800	100	0.95	100
GBD160808PGB222N-AE	2200	100	1.50	50

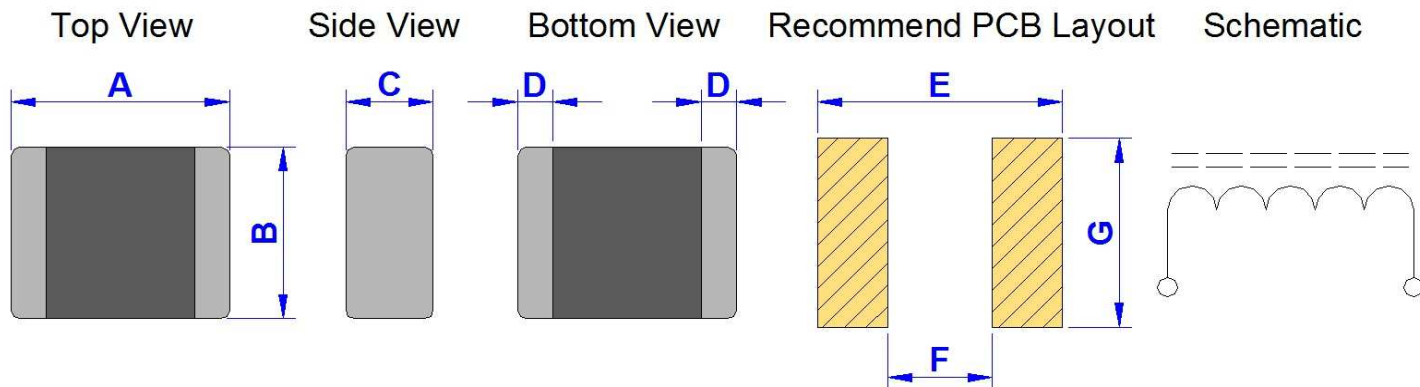
\* Rated Current based on increasing product temperature : Current when temperature of the product reaches +40 °C .



<b>Product Series :</b> GBD	<b>Brand :</b> GOTREND
<b>File Version :</b> GBD-SERIES-AE-V5R7	<b>Editor :</b> David Wang
<b>Established Date :</b> 2009.07.24	<b>Description :</b> Multilayer Ferrite Chip Bead
<b>Latest Edit Date :</b> 2021.11.04	<b>Product Type :</b> <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Customize

**GBD201209PGB-SERIES-AE**

**Dimension [ mm ] :**



Size	A (+/-0.20)	B (+/-0.20)	C (+/-0.20)	D (+/-0.30)	E (Ref.)	F (Ref.)	G (Ref.)
201209	2.00	1.25	0.90	0.50	2.30	1.30	1.30

**Electrical Characteristics :**

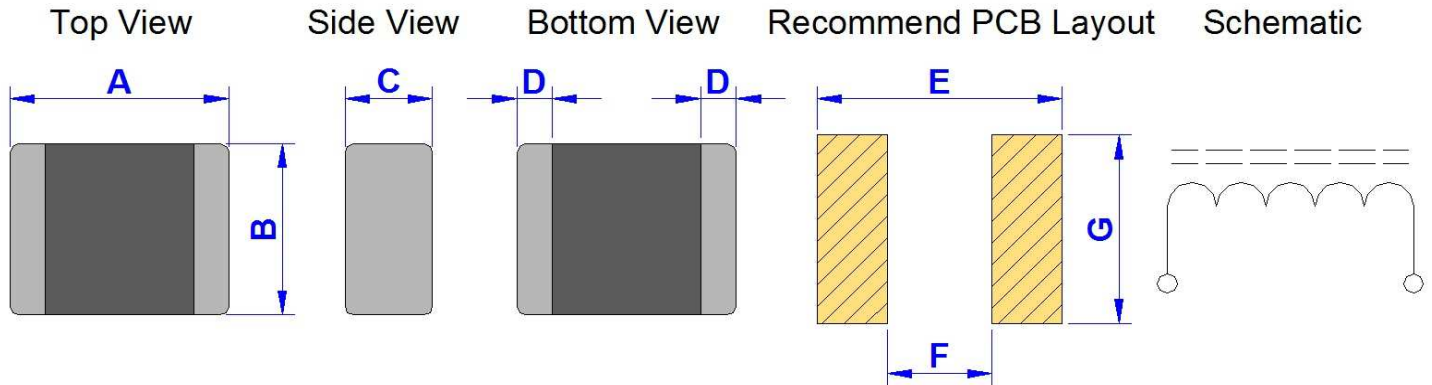
Part No.	Z - Value (Ohm) (+/- 25%)	Test Freq. (MHz) / 0.5V	DCR (Ohm) (Max.)	Rated Current (mA) (Max.)
GBD201209PGB060N-AE	6	100	0.07	800
GBD201209PGB110N-AE	11	100	0.10	700
GBD201209PGB260N-AE	26	100	0.20	600
GBD201209PGB300N-AE	30	100	0.20	600
GBD201209PGB320N-AE	32	100	0.20	600
GBD201209PGB400N-AE	40	100	0.30	500
GBD201209PGB600N-AE	60	100	0.30	500
GBD201209PGB750N-AE	75	100	0.30	500
GBD201209PGB900N-AE	90	100	0.30	500
GBD201209PGB101N-AE	100	100	0.40	400
GBD201209PGB121N-AE	120	100	0.40	400
GBD201209PGB151N-AE	150	100	0.40	400
GBD201209PGB171N-AE	170	100	0.50	400
GBD201209PGB201N-AE	200	100	0.50	300
GBD201209PGB221N-AE	220	100	0.50	300
GBD201209PGB301N-AE	300	100	0.50	300
GBD201209PGB401N-AE	400	100	0.50	300
GBD201209PGB501N-AE	500	100	0.50	200
GBD201209PGB601N-AE	600	100	0.50	200
GBD201209PGB751N-AE	750	100	0.60	100
GBD201209PGB102N-AE	1000	100	0.60	100
GBD201209PGB122N-AE	1200	100	0.70	100
GBD201209PGB152N-AE	1500	100	0.70	100
GBD201209PGB222N-AE	2200	100	0.75	100
GBD201209PGB272N-AE	2700	100	0.85	100

\* Rated Current based on increasing product temperature : Current when temperature of the product reaches +40 °C .

<b>Product Series :</b> GBD	<b>Brand :</b> GOTREND
<b>File Version :</b> GBD-SERIES-AE-V5R7	<b>Editor :</b> David Wang
<b>Established Date :</b> 2009.07.24	<b>Description :</b> Multilayer Ferrite Chip Bead
<b>Latest Edit Date :</b> 2021.11.04	<b>Product Type :</b> <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Customize

**GBD321611PGB-SERIES-AE**

**Dimension [ mm ] :**



Size	A (+/-0.20)	B (+/-0.20)	C (+/-0.20)	D (+/-0.30)	E (Ref.)	F (Ref.)	G (Ref.)
321611	3.20	1.60	1.10	0.70	4.40	2.20	2.06

**Electrical Characteristics :**

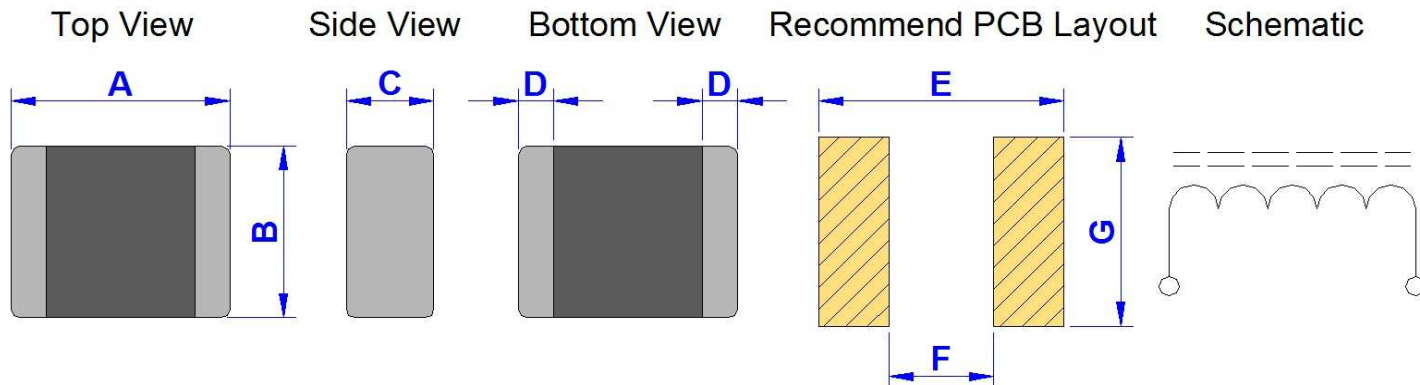
Part No.	Z - Value (Ohm) (+/- 25%)	Test Freq. (MHz) / 0.5V	DCR (Ohm) (Max.)	Rated Current (mA) (Max.)
GBD321611PGB190N-AE	19	100	0.20	600
GBD321611PGB320N-AE	32	100	0.20	600
GBD321611PGB600N-AE	60	100	0.30	500
GBD321611PGB800N-AE	80	100	0.30	500
GBD321611PGB900N-AE	90	100	0.30	500
GBD321611PGB121N-AE	120	100	0.40	400
GBD321611PGB151N-AE	150	100	0.40	400
GBD321611PGB201N-AE	200	100	0.50	300
GBD321611PGB221N-AE	220	100	0.50	300
GBD321611PGB351N-AE	350	100	0.60	300
GBD321611PGB401N-AE	400	100	0.60	300
GBD321611PGB601N-AE	600	100	0.80	300
GBD321611PGB122N-AE	1200	100	1.00	200
GBD321611PGB152N-AE	1500	100	1.20	150

\* Rated Current based on increasing product temperature : Current when temperature of the product reaches +40 °C .

<b>Product Series :</b> GBD	<b>Brand :</b> GOTREND
<b>File Version :</b> GBD-SERIES-AE-V5R7	<b>Editor :</b> David Wang
<b>Established Date :</b> 2009.07.24	<b>Description :</b> Multilayer Ferrite Chip Bead
<b>Latest Edit Date :</b> 2021.11.04	<b>Product Type :</b> <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Customize

**GBD100505PGH-SERIES-AE**

**Dimension [ mm ] :**



Size	A (+/-0.15)	B (+/-0.15)	C (+/-0.15)	D (+/-0.15)	E (Ref.)	F (Ref.)	G (Ref.)
100505	1.00	0.50	0.50	0.25	1.10	0.40	0.60

**Electrical Characteristics :**

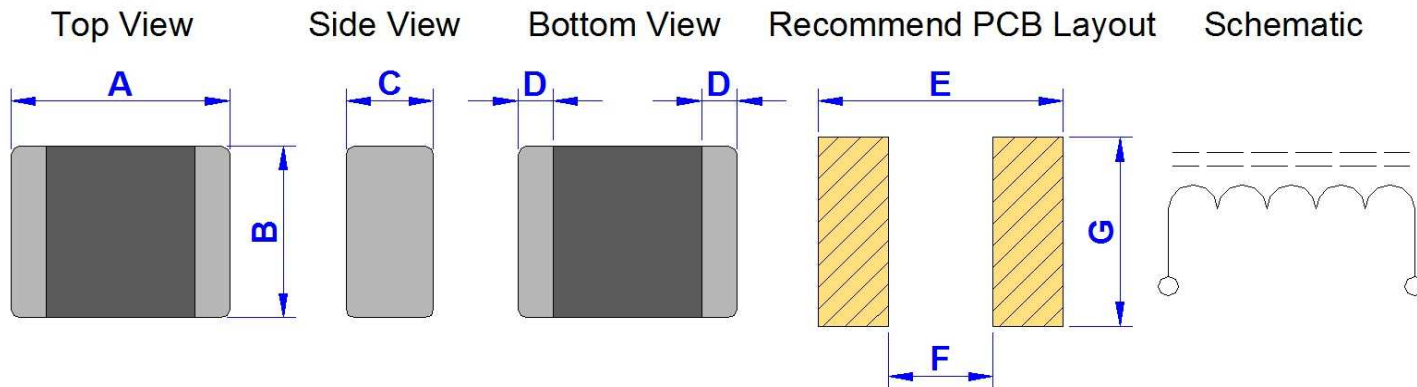
Part No.	Z - Value (Ohm) (+/- 25%)	Test Freq. (MHz) / 0.5V	DCR (Ohm) (Max.)	Rated Current (mA) (Max.)
GBD100505PGH100N-AE	10	100	0.030	2000
GBD100505PGH300N-AE	30	100	0.050	1700
GBD100505PGH600N-AE	60	100	0.080	1500
GBD100505PGH800N-AE	80	100	0.090	1200
GBD100505PGH101N-AE	100	100	0.090	1200
GBD100505PGH121N-AE	120	100	0.090	1200
GBD100505PGH601N-AE	600	100	0.340	420

\* Rated Current based on increasing product temperature : Current when temperature of the product reaches +40 °C .

<b>Product Series :</b> GBD	<b>Brand :</b> GOTREND
<b>File Version :</b> GBD-SERIES-AE-V5R7	<b>Editor :</b> David Wang
<b>Established Date :</b> 2009.07.24	<b>Description :</b> Multilayer Ferrite Chip Bead
<b>Latest Edit Date :</b> 2021.11.04	<b>Product Type :</b> <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Customize

**GBD160808PGH-SERIES-AE**

**Dimension [ mm ] :**



Size	A (+/-0.15)	B (+/-0.15)	C (+/-0.15)	D (+/-0.20)	E (Ref.)	F (Ref.)	G (Ref.)
160808	1.60	0.80	0.80	0.40	1.80	0.60	1.00

**Electrical Characteristics :**

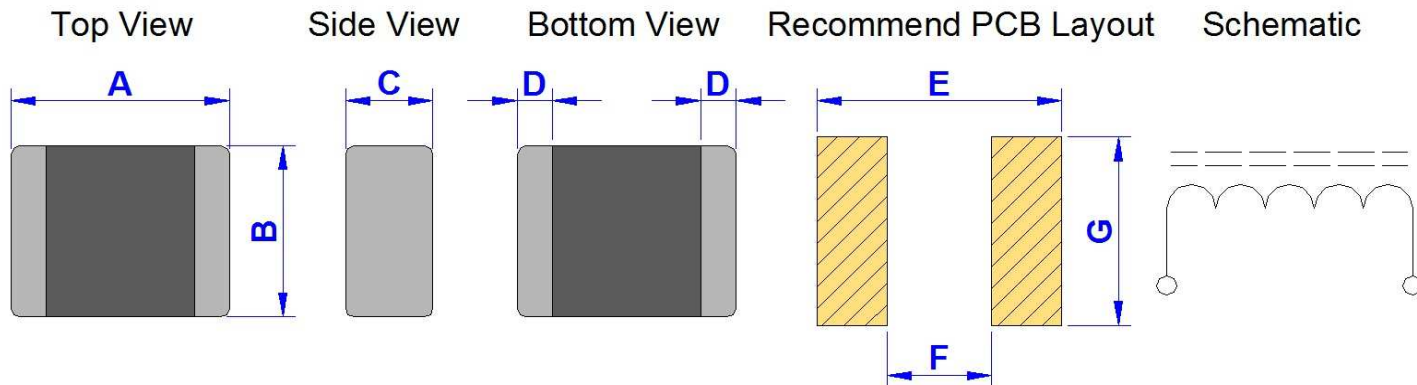
Part No.	Z - Value (Ohm) (+/- 25%)	Test Freq. (MHz) / 0.5V	DCR (Ohm) (Max.)	Rated Current (mA) (Max.)
GBD160808PGH100N-AE	10	100	0.020	4000
GBD160808PGH110N-AE	11	100	0.020	4000
GBD160808PGH220N-AE	22	100	0.040	3000
GBD160808PGH250N-AE	25	100	0.030	3000
GBD160808PGH300N-AE	30	100	0.030	3000
GBD160808PGH400N-AE	40	100	0.035	3000
GBD160808PGH600N-AE	60	100	0.040	3000
GBD160808PGH700N-AE	70	100	0.050	2500
GBD160808PGH750N-AE	75	100	0.050	2500
GBD160808PGH800N-AE	80	100	0.050	2500
GBD160808PGH900N-AE	90	100	0.050	2500
GBD160808PGH101N-AE	100	100	0.050	2500
GBD160808PGH121N-AE	120	100	0.050	2500
GBD160808PGH151N-AE	150	100	0.080	2000
GBD160808PGH181N-AE	180	100	0.080	2000
GBD160808PGH201N-AE	200	100	0.100	2000
GBD160808PGH221N-AE	220	100	0.100	2000
GBD160808PGH301N-AE	300	100	0.100	2000
GBD160808PGH331N-AE	330	100	0.150	1500
GBD160808PGH391N-AE	390	100	0.140	1000
GBD160808PGH471N-AE	470	100	0.150	1500
GBD160808PGH501N-AE	500	100	0.150	1500
GBD160808PGH601N-AE	600	100	0.200	1000
GBD160808PGH102N-AE	1000	100	0.250	800
GBD160808PGH152N-AE	1500	100	0.400	500
GBD160808PGH202N-AE	2000	100	0.500	500
GBD160808PGH252N-AE	2500	100	0.800	200

\* Rated Current based on increasing product temperature : Current when temperature of the product reaches +40 °C .

<b>Product Series :</b> GBD	<b>Brand :</b> GOTREND
<b>File Version :</b> GBD-SERIES-AE-V5R7	<b>Editor :</b> David Wang
<b>Established Date :</b> 2009.07.24	<b>Description :</b> Multilayer Ferrite Chip Bead
<b>Latest Edit Date :</b> 2021.11.04	<b>Product Type :</b> <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Customize

**GBD201209PGH-SERIES-AE**

**Dimension [ mm ] :**



Size	A (+/-0.20)	B (+/-0.20)	C (+/-0.20)	D (+/-0.30)	E (Ref.)	F (Ref.)	G (Ref.)
201209	2.00	1.25	0.90	0.50	2.30	1.30	1.30

**Electrical Characteristics :**

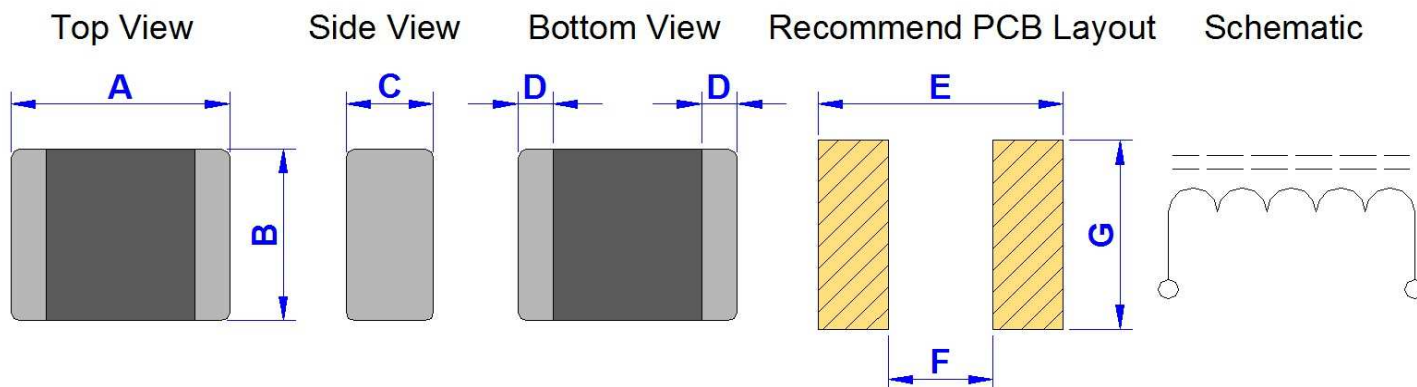
Part No.	Z - Value (Ohm) (+/- 25%)	Test Freq. (MHz) / 0.5V	DCR (Ohm) (Max.)	Rated Current (mA) (Max.)
GBD201209PGH070N-AE	7	100	0.01	6000
GBD201209PGH110N-AE	11	100	0.01	6000
GBD201209PGH170N-AE	17	100	0.02	5000
GBD201209PGH220N-AE	22	100	0.02	4000
GBD201209PGH270N-AE	27	100	0.02	4000
GBD201209PGH300N-AE	30	100	0.02	4000
GBD201209PGH310N-AE	31	100	0.02	4000
GBD201209PGH400N-AE	40	100	0.02	3000
GBD201209PGH500N-AE	50	100	0.02	3000
GBD201209PGH600N-AE	60	100	0.03	3000
GBD201209PGH700N-AE	70	100	0.04	3000
GBD201209PGH750N-AE	75	100	0.04	3000
GBD201209PGH800N-AE	80	100	0.04	3000
GBD201209PGH900N-AE	90	100	0.04	3000
GBD201209PGH101N-AE	100	100	0.04	3000
GBD201209PGH121N-AE	120	100	0.04	3000
GBD201209PGH151N-AE	150	100	0.05	2500
GBD201209PGH181N-AE	180	100	0.05	2500
GBD201209PGH201N-AE	200	100	0.05	2500
GBD201209PGH221N-AE	220	100	0.08	2000
GBD201209PGH301N-AE	300	100	0.08	2000
GBD201209PGH331N-AE	330	100	0.08	2000
GBD201209PGH401N-AE	400	100	0.10	2000
GBD201209PGH501N-AE	500	100	0.10	2000
GBD201209PGH601N-AE	600	100	0.10	2000
GBD201209PGH102N-AE	1000	100	0.12	1500
GBD201209PGH152N-AE	1500	100	0.30	1000

\* Rated Current based on increasing product temperature : Current when temperature of the product reaches +40 °C .

<b>Product Series :</b> GBD	<b>Brand :</b> GOTREND
<b>File Version :</b> GBD-SERIES-AE-V5R7	<b>Editor :</b> David Wang
<b>Established Date :</b> 2009.07.24	<b>Description :</b> Multilayer Ferrite Chip Bead
<b>Latest Edit Date :</b> 2021.11.04	<b>Product Type :</b> <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Customize

**GBD321611PGH-SERIES-AE**

**Dimension [ mm ] :**



Size	A (+/-0.20)	B (+/-0.20)	C (+/-0.20)	D (+/-0.30)	E (Ref.)	F (Ref.)	G (Ref.)
321611	3.20	1.60	1.10	0.70	4.40	2.20	2.06

**Electrical Characteristics :**

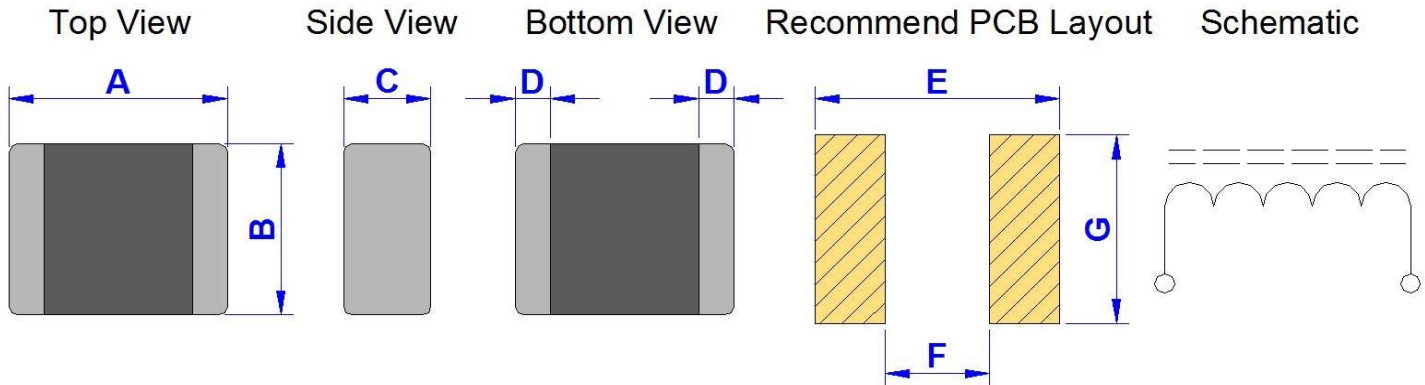
Part No.	Z - Value (Ohm) (+/- 25%)	Test Freq. (MHz) / 0.5V	DCR (Ohm) (Max.)	Rated Current (mA) (Max.)
GBD321611PGH110N-AE	11 ± 25%	100	0.015	6000
GBD321611PGH190N-AE	19 ± 25%	100	0.015	6000
GBD321611PGH260N-AE	26 ± 25%	100	0.015	6000
GBD321611PGH300N-AE	30 ± 25%	100	0.015	4000
GBD321611PGH310N-AE	31 ± 25%	100	0.015	4000
GBD321611PGH320N-AE	32 ± 25%	100	0.015	4000
GBD321611PGH500N-AE	50 ± 25%	100	0.020	4000
GBD321611PGH600N-AE	60 ± 25%	100	0.020	4000
GBD321611PGH800N-AE	80 ± 25%	100	0.025	3000
GBD321611PGH900N-AE	90 ± 25%	100	0.030	3000
GBD321611PGH101N-AE	100 ± 25%	100	0.030	3000
GBD321611PGH121N-AE	120 ± 25%	100	0.030	3000
GBD321611PGH151N-AE	150 ± 25%	100	0.040	2000
GBD321611PGH221N-AE	220 ± 25%	100	0.050	2000
GBD321611PGH301N-AE	300 ± 25%	100	0.060	2000
GBD321611PGH401N-AE	400 ± 25%	100	0.065	2500
GBD321611PGH501N-AE	500 ± 25%	100	0.070	2500
GBD321611PGH601N-AE	600 ± 25%	100	0.100	2000
GBD321611PGH102N-AE	1000 ± 25%	50	0.300	1000
GBD321611PGH122N-AE	1200 ± 25%	50	0.180	1000
GBD321611PGH152N-AE	1500 ± 25%	50	0.200	800

\* Rated Current based on increasing product temperature : Current when temperature of the product reaches +40 °C .

Product Series : GBD	Brand : GOTREND
File Version : GBD-SERIES-AE-V5R7	Editor : David Wang
Established Date : 2009.07.24	Description : Multilayer Ferrite Chip Bead
Latest Edit Date : 2021.11.04	Product Type : <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Customize

**GBD322513PGH-SERIES-AE**

Dimension [ mm ] :



Size	A (+/-0.20)	B (+/-0.20)	C (+/-0.20)	D (+/-0.20)	E (Ref.)	F (Ref.)	G (Ref.)
322513	3.20	2.50	1.30	0.80	4.06	2.13	2.74

**Electrical Characteristics :**

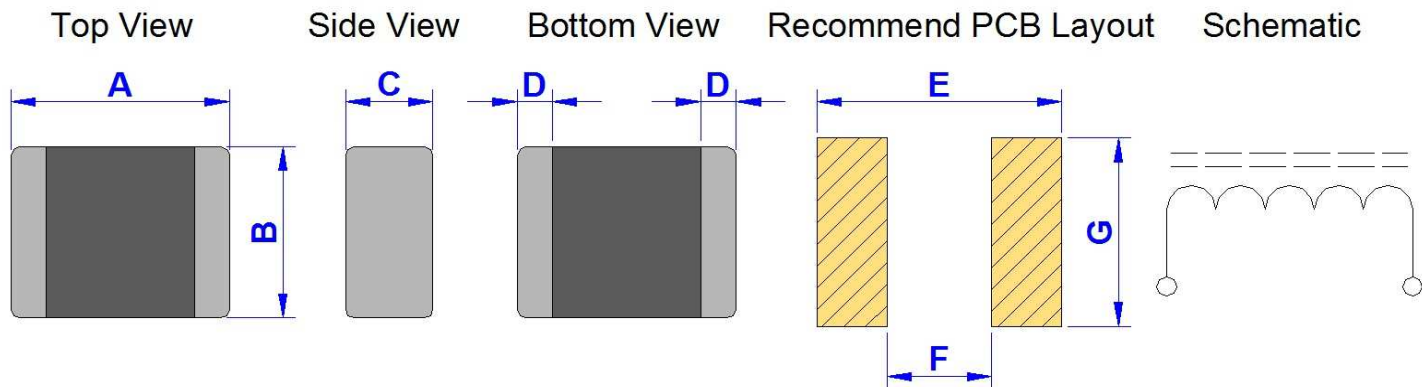
Part No.	Z - Value (Ohm) (+/- 25%)	Test Freq. (MHz) / 0.5V	DCR (Ohm) (Max.)	Rated Current (mA) (Max.)
GBD322513PGH600N-AE	60 ± 25%	100	0.025	4000
GBD322513PGH900N-AE	90 ± 25%	100	0.025	3000

\* Rated Current based on increasing product temperature : Current when temperature of the product reaches +40 °C .

Product Series : GBD	Brand : GOTREND
File Version : GBD-SERIES-AE-V5R7	Editor : David Wang
Established Date : 2009.07.24	Description : Multilayer Ferrite Chip Bead
Latest Edit Date : 2021.11.04	Product Type : <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Customize

**GBD451616PGH-SERIES-AE**

Dimension [ mm ] :



Size	A (+/-0.20)	B (+/-0.20)	C (+/-0.20)	D (+/-0.20)	E (Ref.)	F (Ref.)	G (Ref.)
451616	4.50	1.60	1.60	0.80	5.70	2.70	2.24

**Electrical Characteristics :**

Part No.	Z - Value (Ohm) (+/- 25%)	Test Freq. (MHz) / 0.5V	DCR (Ohm) (Max.)	Rated Current (mA) (Max.)
GBD451616PGH500N-AE	50 ± 25%	100	0.020	6000
GBD451616PGH600N-AE	60 ± 25%	100	0.020	5000
GBD451616PGH800N-AE	80 ± 25%	100	0.025	4000
GBD451616PGH151N-AE	150 ± 25%	100	0.100	2000

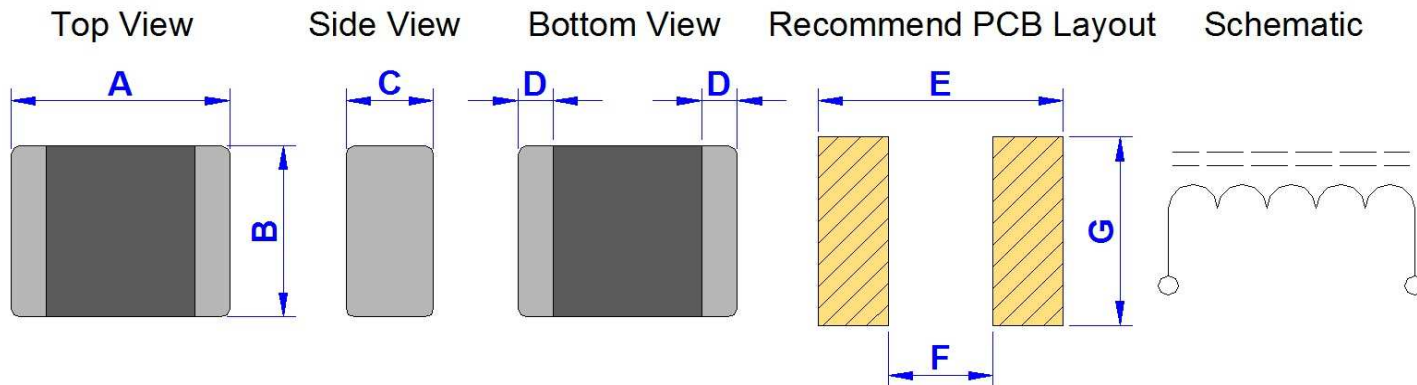
\* Rated Current based on increasing product temperature : Current when temperature of the product reaches +40 °C .



<b>Product Series :</b> GBD	<b>Brand :</b> GOTREND
<b>File Version :</b> GBD-SERIES-AE-V5R7	<b>Editor :</b> David Wang
<b>Established Date :</b> 2009.07.24	<b>Description :</b> Multilayer Ferrite Chip Bead
<b>Latest Edit Date :</b> 2021.11.04	<b>Product Type :</b> <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Customize

**GBD453215PGH-SERIES-AE**

**Dimension [ mm ] :**



Size	A (+/-0.20)	B (+/-0.20)	C (+/-0.20)	D (+/-0.20)	E (Ref.)	F (Ref.)	G (Ref.)
453215	4.50	3.20	1.50	0.80	5.90	2.57	4.22

**Electrical Characteristics :**

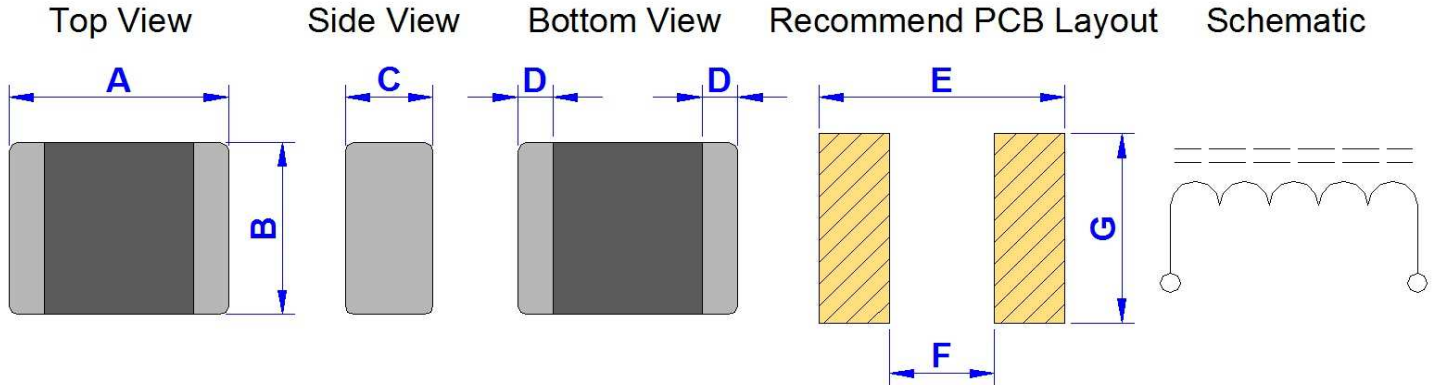
Part No.	Z - Value (Ohm) (+/- 25%)	Test Freq. (MHz) / 0.5V	DCR (Ohm) (Max.)	Rated Current (mA) (Max.)
GBD453215PGH700N-AE	70 ± 25%	100	0.030	6000
GBD453215PGH121N-AE	120 ± 25%	100	0.030	4000

\* Rated Current based on increasing product temperature : Current when temperature of the product reaches +40 °C .

Product Series : GBD	Brand : GOTREND
File Version : GBD-SERIES-AE-V5R7	Editor : David Wang
Established Date : 2009.07.24	Description : Multilayer Ferrite Chip Bead
Latest Edit Date : 2021.11.04	Product Type : <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Customize

**GBD565015PGH-SERIES-AE**

**Dimension [ mm ] :**



Size	A (+/-0.51)	B (+/-0.25)	C (+/-0.20)	D (Typ.)	E (Ref.)	F (Ref.)	G (Ref.)
565015	5.59	5.08	1.50	0.51 ~ 1.01	9.19	3.05	6.10

**Electrical Characteristics :**

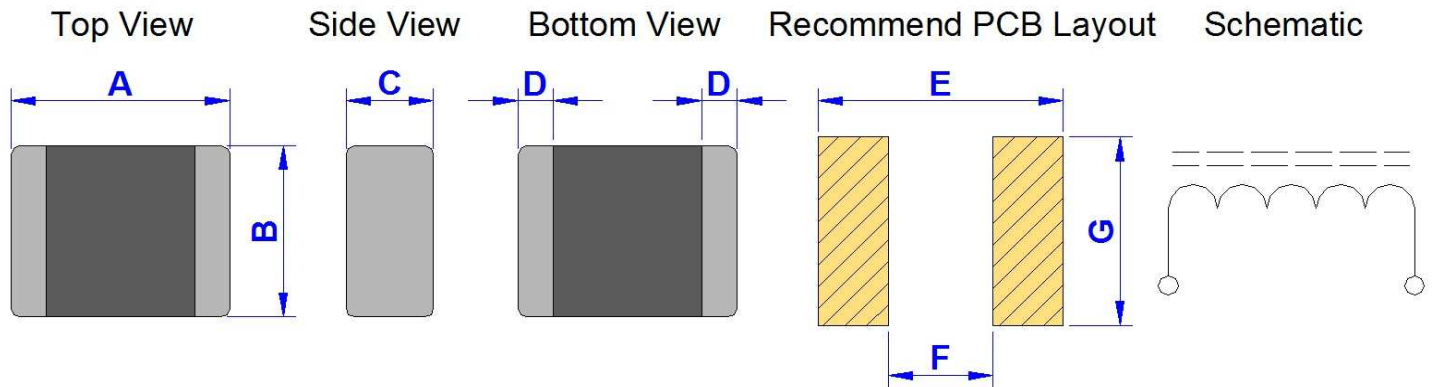
Part No.	Z - Value (Ohm) (+/- 25%)	Test Freq. (MHz) / 0.5V	DCR (Ohm) (Max.)	Rated Current (mA) (Max.)
GBD565015PGH171N-AE	170 ± 25%	100	0.030	4000

\* Rated Current based on increasing product temperature : Current when temperature of the product reaches +40 °C .

Product Series : GBD	Brand : GOTREND
File Version : GBD-SERIES-AE-V5R7	Editor : David Wang
Established Date : 2009.07.24	Description : Multilayer Ferrite Chip Bead
Latest Edit Date : 2021.11.04	Product Type : <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Customize

**GBD565018PGH-SERIES-AE**

Dimension [ mm ] :



Size	A (+/-0.51)	B (+/-0.25)	C (+/-0.25)	D (Typ.)	E (Ref.)	F (Ref.)	G (Ref.)
565018	5.59	5.08	1.80	0.51 ~ 1.01	9.19	3.05	6.10

**Electrical Characteristics :**

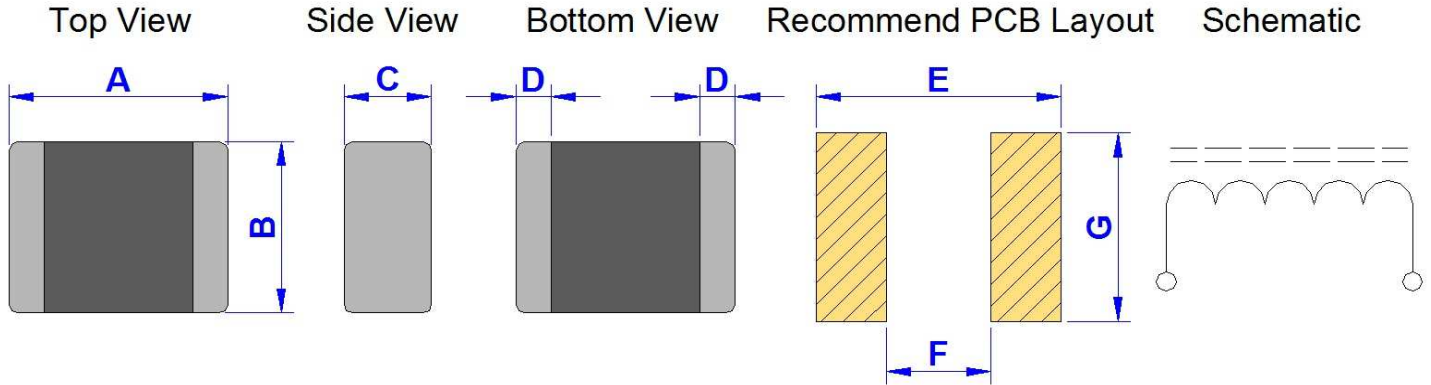
Part No.	Z - Value (Ohm) (+/- 25%)	Test Freq. (MHz) / 0.5V	DCR (Ohm) (Max.)	Rated Current (mA) (Max.)
GBD565018PGH101N-AE	100 ± 25%	100	0.006	6000
GBD565018PGH151N-AE	150 ± 25%	100	0.015	5000
GBD565018PGH181N-AE	180 ± 25%	100	0.020	5000
GBD565018PGH251N-AE	250 ± 25%	100	0.015	4000

\* Rated Current based on increasing product temperature : Current when temperature of the product reaches +40 °C .

<b>Product Series :</b> GBD	<b>Brand :</b> GOTREND
<b>File Version :</b> GBD-SERIES-AE-V5R7	<b>Editor :</b> David Wang
<b>Established Date :</b> 2009.07.24	<b>Description :</b> Multilayer Ferrite Chip Bead
<b>Latest Edit Date :</b> 2021.11.04	<b>Product Type :</b> <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Customize

**GBD565032PGH-SERIES-AE**

**Dimension [ mm ] :**



Size	A (+/-0.51)	B (+/-0.25)	C (+/-0.25)	D (Typ.)	E (Ref.)	F (Ref.)	G (Ref.)
565032	5.59	5.08	3.20	0.51 ~ 1.01	9.19	3.05	6.10

**Electrical Characteristics :**

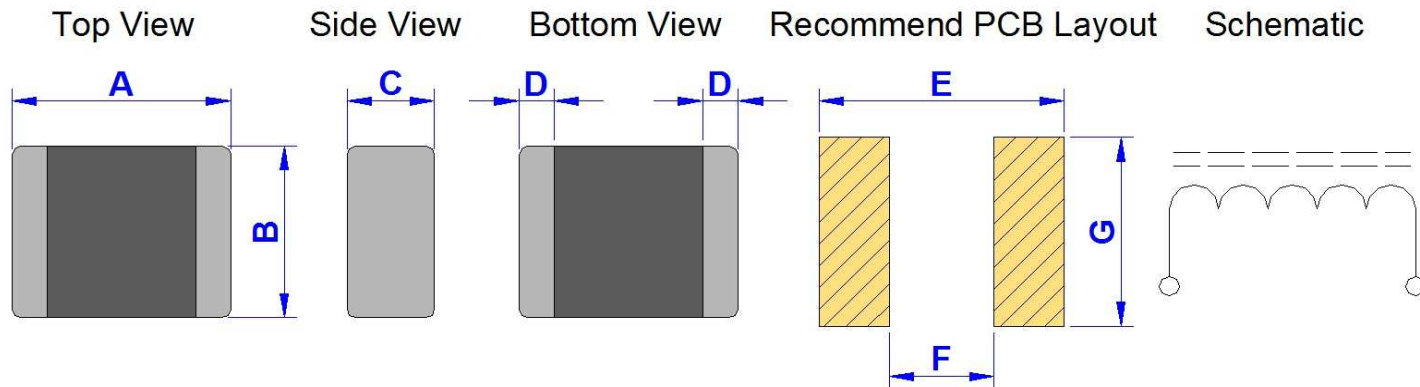
Part No.	Z - Value (Ohm) (+/- 25%)	Test Freq. (MHz) / 0.5V	DCR (Ohm) (Max.)	Rated Current (mA) (Max.)
GBD565032PGH271N-AE	270 ± 25%	100	0.035	4000
GBD565032PGH401N-AE	400 ± 25%	100	0.030	4500

\* Rated Current based on increasing product temperature : Current when temperature of the product reaches +40 °C .

<b>Product Series :</b> GBD	<b>Brand :</b> GOTREND
<b>File Version :</b> GBD-SERIES-AE-V5R7	<b>Editor :</b> David Wang
<b>Established Date :</b> 2009.07.24	<b>Description :</b> Multilayer Ferrite Chip Bead
<b>Latest Edit Date :</b> 2021.11.04	<b>Product Type :</b> <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Customize

**GBD100505PGF-SERIES-AE**

**Dimension [ mm ] :**



Size	A (+/-0.15)	B (+/-0.15)	C (+/-0.15)	D (+/-0.15)	E (Ref.)	F (Ref.)	G (Ref.)
100505	1.00	0.50	0.50	0.25	1.10	0.40	0.60

**Electrical Characteristics :**

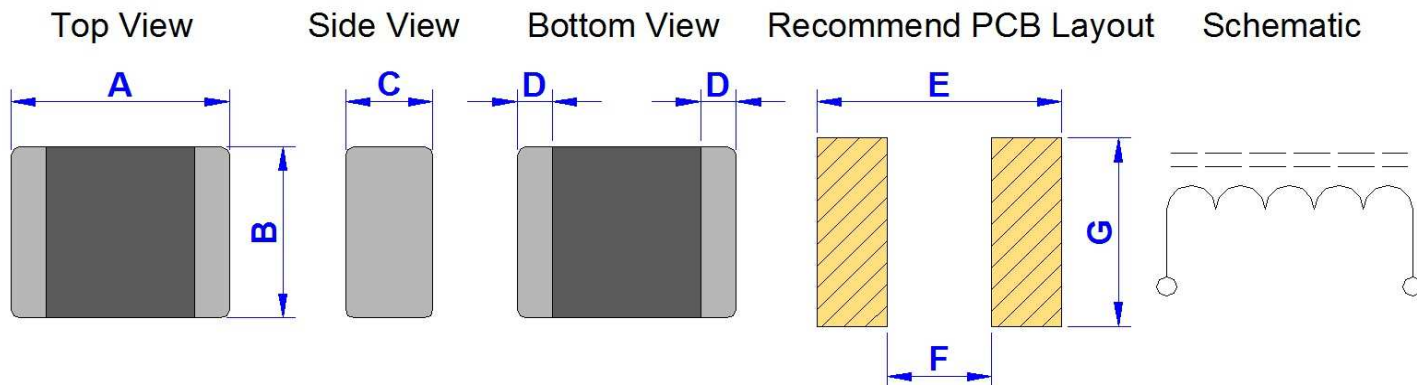
Part No.	Impedance (Ohm +/- 25%) @100MHz	Impedance (Ohm +/- 40%) @1GHz	DCR (Ohm) (Max.)	Rated Current (mA) (Max.)
GBD100505PGF201N-AE	200	420	0.70	200
GBD100505PGF221N-AE	220	420	0.70	500
GBD100505PGF301N-AE	300	560	0.80	200
GBD100505PGF331N-AE	330	560	0.80	200
GBD100505PGF470N-AE	470	1000	1.00	100
GBD100505PGF601N-AE	600	1100	1.20	100
GBD100505PGF102N-AE	1000	1700	1.60	100

\* Rated Current based on increasing product temperature : Current when temperature of the product reaches +40 °C .

Product Series : GBD	Brand : GOTREND
File Version : GBD-SERIES-AE-V5R7	Editor : David Wang
Established Date : 2009.07.24	Description : Multilayer Ferrite Chip Bead
Latest Edit Date : 2021.11.04	Product Type : <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Customize

**GBD160808PGF-SERIES-AE**

Dimension [ mm ] :



Size	A (+/-0.15)	B (+/-0.15)	C (+/-0.15)	D (+/-0.20)	E (Ref.)	F (Ref.)	G (Ref.)
160808	1.60	0.80	0.80	0.40	1.80	0.60	1.00

**Electrical Characteristics :**

Part No.	Impedance (Ohm +/- 25%) @100MHz	Impedance (Ohm +/- 40%) @1GHz	DCR (Ohm) (Max.)	Rated Current (mA) (Max.)
GBD160808PGF121N-AE	120	140	0.25	300
GBD160808PGF221N-AE	220	300	0.50	200
GBD160808PGF301N-AE	300	400	0.50	200
GBD160808PGF331N-AE	330	400	0.50	200
GBD160808PGF471N-AE	470	500	0.70	200
GBD160808PGF601N-AE	600	600	0.90	100
GBD160808PGF801N-AE	800	1000	1.50	50
GBD160808PGF102N-AE	1000	1200	1.50	50
GBD160808PGF122N-AE	1200	1000	1.50	50

\* Rated Current based on increasing product temperature : Current when temperature of the product reaches +40 °C .

<b>Product Series :</b> GBD	<b>Brand :</b> GOTREND
<b>File Version :</b> GBD-SERIES-AE-V5R7	<b>Editor :</b> David Wang
<b>Established Date :</b> 2009.07.24	<b>Description :</b> Multilayer Ferrite Chip Bead
<b>Latest Edit Date :</b> 2021.11.04	<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> GBD	<b>Brand :</b> GOTREND
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<b>Established Date :</b> 2009.07.24	<b>Description :</b> Multilayer Ferrite Chip Bead
<b>Latest Edit Date :</b> 2021.11.04	<b>Product Type :</b> <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Customize

### Reliability :

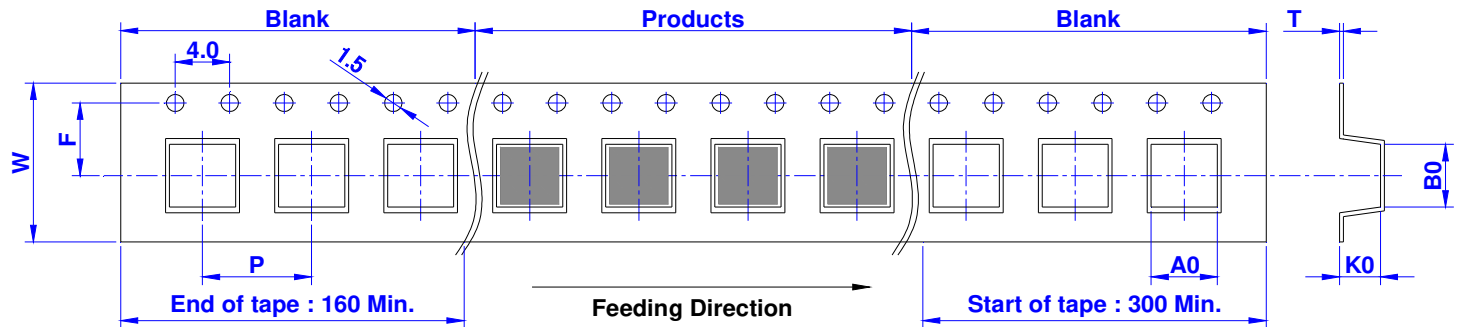
No	Item	Test Conditions	Specification
1	<b>External Visual</b> MIL-STD-883 Method 2009	Inspect device construction and workmanship. Electrical test not required.	There is no change for appearance ( electrode did not fall off , loose , no breakage , ferrite core did not break , damage )
2	<b>Physical 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±2 °C ~ +125±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 ±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 ±10%.
5	<b>High Temperature</b> MIL-STD-202 Method 108	Temperature : 125±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 ±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 ±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.



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<b>Latest Edit Date :</b> 2021.11.04	<b>Product Type :</b> <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Customize

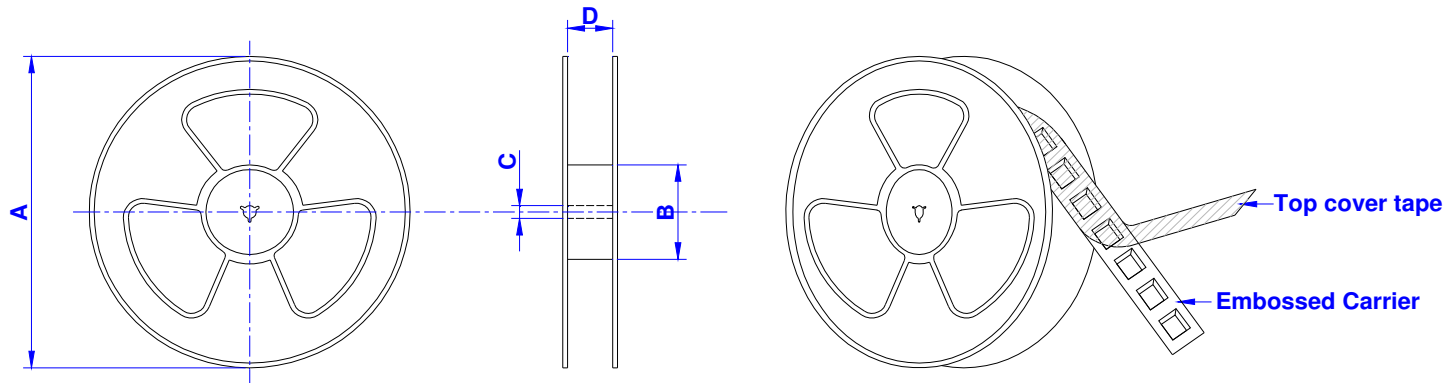
**Packaging Information :**

Tape Dimension ( mm ) :



SIZE/mm	A0	B0	W	F	P	K0	T
060303	0.38 +/-0.04	0.68 +/-0.04	8.00 +/-0.20	3.50 +/-0.05	4.00 +/-0.10	N/A	1.1 Max.
100505	0.65 +/-0.10	1.15 +/-0.10	8.00 +/-0.20	3.50 +/-0.05	2.00 +/-0.10	0.80 +/-0.05	0.20 +/-0.05
160808	1.10 +/-0.10	1.90 +/-0.10	8.00 +/-0.20	3.50 +/-0.05	4.00 +/-0.10	1.10 +/-0.05	0.20 +/-0.05
201209	1.55 +/-0.10	2.30 +/-0.10	8.00 +/-0.20	3.50 +/-0.05	4.00 +/-0.10	1.20 +/-0.05	0.20 +/-0.05
321611	1.90 +/-0.10	3.50 +/-0.10	8.00 +/-0.20	3.50 +/-0.05	4.00 +/-0.10	1.40 +/-0.05	0.20 +/-0.05
321616	1.90 +/-0.10	3.50 +/-0.10	8.00 +/-0.20	3.50 +/-0.05	4.00 +/-0.10	2.05 +/-0.05	0.20 +/-0.05
322513	2.90 +/-0.10	3.60 +/-0.10	8.00 +/-0.20	3.50 +/-0.05	4.00 +/-0.10	1.70 +/-0.05	0.25 +/-0.05
451616	2.90 +/-0.10	4.90 +/-0.10	12.0 +/-0.20	3.50 +/-0.05	8.00 +/-0.10	2.05 +/-0.05	0.30 +/-0.05
453215	3.60 +/-0.10	4.90 +/-0.10	12.0 +/-0.20	3.50 +/-0.05	8.00 +/-0.10	2.05 +/-0.05	0.30 +/-0.05
565015	5.40 +/-0.10	5.95 +/-0.10	12.0 +/-0.20	3.50 +/-0.05	8.00 +/-0.10	2.28 +/-0.05	0.30 +/-0.05
565018	5.40 +/-0.10	5.95 +/-0.10	12.0 +/-0.20	3.50 +/-0.05	8.00 +/-0.10	2.28 +/-0.05	0.30 +/-0.05
565032	5.40 +/-0.10	5.95 +/-0.10	12.0 +/-0.20	3.50 +/-0.05	8.00 +/-0.10	3.42 +/-0.05	0.30 +/-0.05

Reel Dimension ( mm ) :

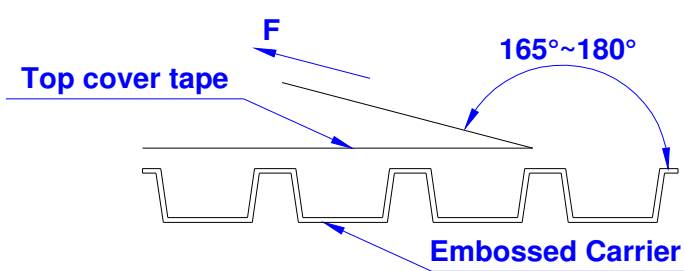


SIZE/mm	Reel Size	A	B	C	D	QTY / Reel
060303	7" x 8 mm	178	60	13	8.5	15000 PCS
100505	7" x 8 mm	178	60	13	8.5	10000 PCS
160808	7" x 8 mm	178	60	13	8.5	4000 PCS
201209	7" x 8 mm	178	60	13	8.5	4000 PCS
321611	7" x 8 mm	178	60	13	8.5	3000 PCS
321616	7" x 8 mm	178	60	13	8.5	2000 PCS
322513	7" x 8 mm	178	60	13	8.5	2000 PCS
451616	7" x 12 mm	178	60	13	12.5	2000 PCS
453215	7" x 12 mm	178	60	13	12.5	1000 PCS
565015	13" x 12 mm	330	100	13	12.5	2000 PCS
565018	13" x 12 mm	330	100	13	12.5	2000 PCS
565032	13" x 12 mm	330	100	13	12.5	2000 PCS

<b>Product Series :</b> GBD	<b>Brand :</b> GOTREND
<b>File Version :</b> GBD-SERIES-AE-V5R7	<b>Editor :</b> David Wang
<b>Established Date :</b> 2009.07.24	<b>Description :</b> Multilayer Ferrite Chip Bead
<b>Latest Edit Date :</b> 2021.11.04	<b>Product Type :</b> <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Customize

**Packaging Information :**

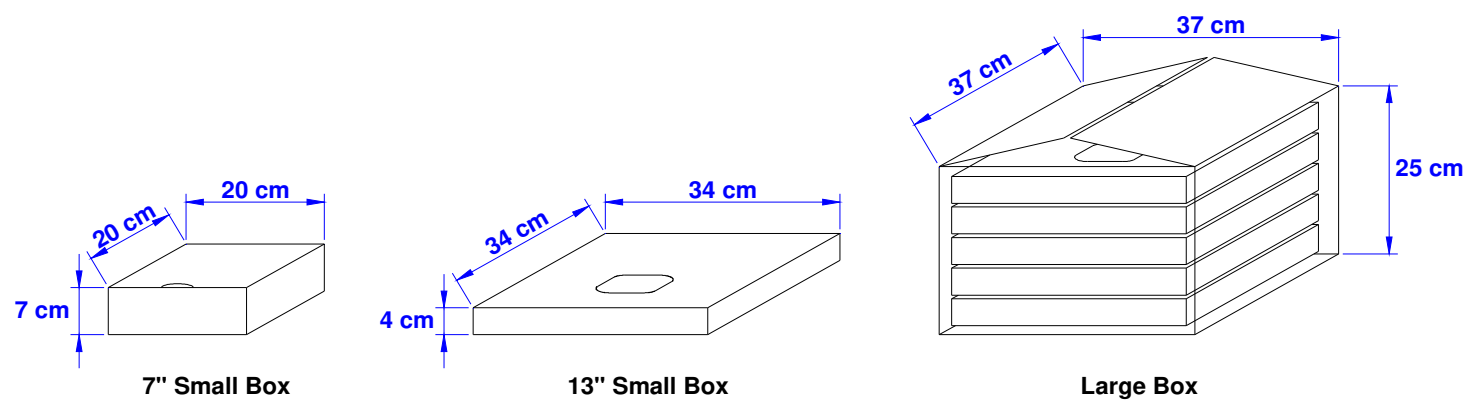
Tearing Off Force :



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 4.11 standard).

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

Box Package :



SIZE/mm	Reels in Small Box	Small Box in Large Box
060303	5	8
100505	5	8
160808	5	8
201209	5	8
321611	5	8
321616	5	8
322513	5	8
451616	4	8
453215	4	8
565015	2	5
565018	2	5
565032	2	5