



Product Series Code	<b>GBD</b>	Brand	<b>GOTREND</b>
File Version	GBD100505PGH102N-V1R0	Editor	Teddy
Established Date	2014.07.29	Description	Multilayer Ferrite Chip Bead
Latest Edit Date	2014.07.29	Pages	Page : 2

### 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...

### Part No Example:

GBD 100505 P GH 102 N  
 -----  
 1 2 3 4 5 6

1. GBD : GOTREND Series
2. 100505 : Length 1.0 mm X Width 0.5 mm x Height 0.5 mm
3. P : Pb < 1000ppm
4. GH : High - Current
5. 102 : Impedance ( Ohm ) = 1000 Ohm
6. N : Tolerance N=25%

### Test Equipment :

- \* HP4284A,HP42841A- L,IDC,Q.RDC
- \* HP8753D NETWORK ANALYZER- SRF

Standard Atmospheric Conditions:

Ambient Temp:20+/-15°C

Relative Humidity:65+/-20%

If there may be any doubt on the result, measurement shall be made within the following limits:

Ambient Temp:25+/-5°C

Relative Humidity:75+/-10%

### Operating & Storage Condition:

OPERATING TEMP:-40~+85°C

STORAGE TEMP:-40~+85°C

STORAGE LIFE TIME: 12 MONTH @25°C , RH 65%

### Attention & Caution:

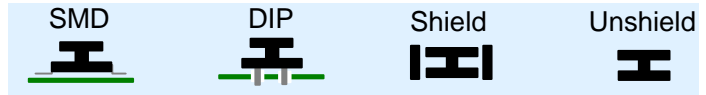
Please avoid following matters:

- \* Splashing water or salt water
- \* Toxic Gas (Hydrogen sulfide, Sulfurous acid, Chlorine, Ammonia)
- \* Vibrations or shocks which exceed the specified condition
- \* Dew condenses
- \* Please be careful for the stress to this product by board flexure or something after the mounting.

### Electrical Characteristics :

Part No.	Z - Value (ohm) (+/- 25%)	Test Freq. (MHz)	DCR (ohm) (Max.)	Rated Current (mA) (Max.)
<b>GBD100505PGH102N</b>	1,000	<b>100</b>	0.8	<b>250</b>

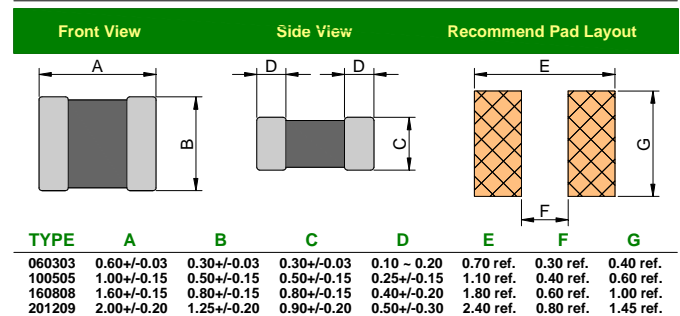
### Product Structure



### 2005 RoHS Compliant - SGS Certified Result

鉛 Pb	鎘 Cd	汞 Hg	六價鉻 Cr+6	溴化聯苯 PBB	溴化聯苯 醌PBDE
<1000ppm	ND	ND	ND	ND	ND

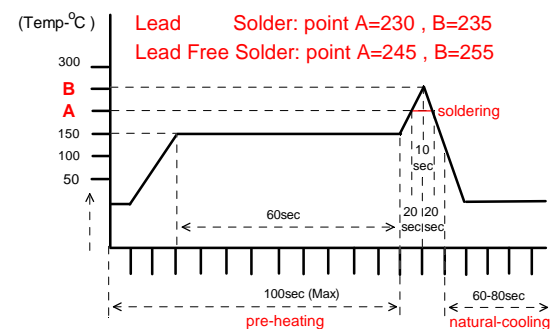
### DIMENSION : [ mm ]



### Size Code & Package Quantity:

JIS CODE	EIA CODE	PCS / REEL	REEL / BOX
0603	201	15,000	5
1005	402	10,000	5
1608	603	4,000	5
201209	805	4,000	5

### Recommend Reflow Curve (TIME:Second)



Notice: Iron Soldering: 3 Seconds Max. @260°C

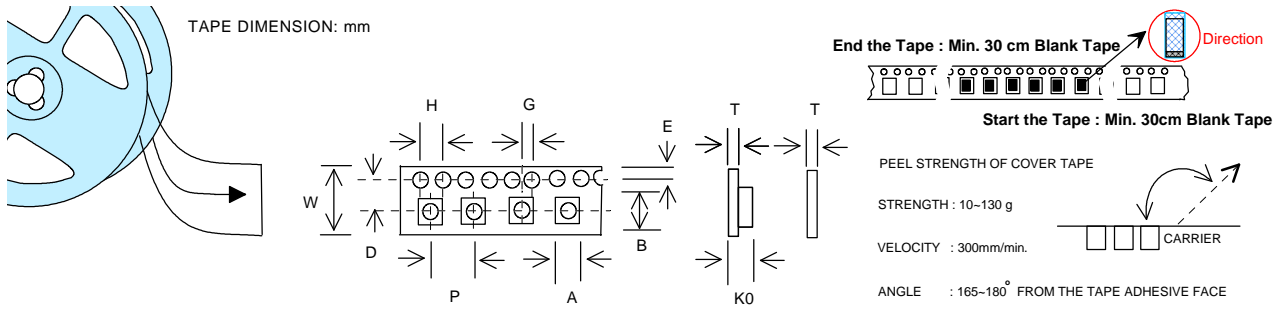


Product Series Code	<b>GBD</b>	Brand	<b>GOTREND</b>
File Version	GBD100505PGH102N-V1R0	Editor	Teddy
Established Date	2014.07.29	Description	Multilayer Ferrite Chip Bead
Latest Edit Date	2014.07.29	Pages	Page : 3

Reliability Test Result :																			
NO	ITEM	TEST CONDITIONS	REMARKS																
1	Thermal Shock (Temperature Cycle)	Temperature: -40 ° C / +85 ° C kept stabilized for 30 minutes each  Cycle: 100 Cycles	Inductance value shall be within $\pm 10\%$ of the initial value. Q-factor shall be within $\pm 30\%$ of the initial value. Impedance shall be within $\pm 20\%$ of the initial value. DCR value shall be within $\pm 20\%$ of the initial value.																
2	Humidity Resistance	Humidity: 90%~ 95% RH Temperature: 40 $\pm$ 2 ° C Test Time: 1000 $\pm$ 12 Hours	■NO.1~4 Measurement: After placing for 24 hours (min.)																
3	High Temperature	Temperature: 85 $\pm$ 2 ° C Humidity: 20% Testing Time: 1000 $\pm$ 12 Hours	■NO.2~3 Applied current(spec): Rated current(maximum value)																
4	Low Temperature	Temperature: -40 $\pm$ 2 ° C Time: 1000 $\pm$ 12 Hours																	
5	Temperature and Humidity Cycle	<table border="1"> <thead> <tr> <th>Step</th> <th>Temp</th> <th>Humidity</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>25<math>\pm</math> 2 ° C</td> <td>95~100%RH</td> <td>3.0Hr</td> </tr> <tr> <td>2</td> <td>55<math>\pm</math> 2 ° C</td> <td>95~96%RH</td> <td>9.5Hr</td> </tr> <tr> <td>3</td> <td>25<math>\pm</math> 2 ° C</td> <td>95~100%RH</td> <td>9.5Hr</td> </tr> </tbody> </table>	Step	Temp	Humidity	Time	1	25 $\pm$ 2 ° C	95~100%RH	3.0Hr	2	55 $\pm$ 2 ° C	95~96%RH	9.5Hr	3	25 $\pm$ 2 ° C	95~100%RH	9.5Hr	■NO.5 Cycle: 5 cycles
Step	Temp	Humidity	Time																
1	25 $\pm$ 2 ° C	95~100%RH	3.0Hr																
2	55 $\pm$ 2 ° C	95~96%RH	9.5Hr																
3	25 $\pm$ 2 ° C	95~100%RH	9.5Hr																
6	Vibration	Frequency: 10Hz~55Hz Amplitude: 1.5mm Direction: X,Y,Z Time: 2 Hours each																	
7	IR Reflow Soldering	Solder: H63A(eutectic solder) Solder Temp.: 230 $\pm$ 5 ° C Time: 6 minutes Cycles: x 1	Impedance(inductance) shall be within $\pm 20\%$ of the initial value. DCR value shall be within $\pm 20\%$ of the initial value.																
8	Soldering Heat Resistance	Preheat: 120 ~ 150 ° C (60 sec) Solder: H63A(eutectic solder) Solder Temp.: 260 $\pm$ 5 ° C Flux: Rosin Dip time: 10 $\pm$ 1 seconds	The chip must have no cracks. More than 75% of the terminal electrode must be covered with solder.																
9	Bending Strength		The terminal electrode and the ferrite must not be damaged by the forces applied on the test conditions.  100505: $\geq$ 1 kg 201209, 160808: $\geq$ 3 kg 321616, 321611, 322513: $\geq$ 6 kg 453215, 453216: $\geq$ 8 kg																
10	Flexure Strength		No mechanical damage shall be noticed even when the board is bent 2 mm																
11	Terminal Strength		The terminal electrode and the ferrite must not be damaged by the forces applied on the test conditions.  100505: $\geq$ 0.2kg    160808: $\geq$ 0.5kg 201209: $\geq$ 1.0kg    321611: $\geq$ 1.5kg 453215: $\geq$ 2.0kg																

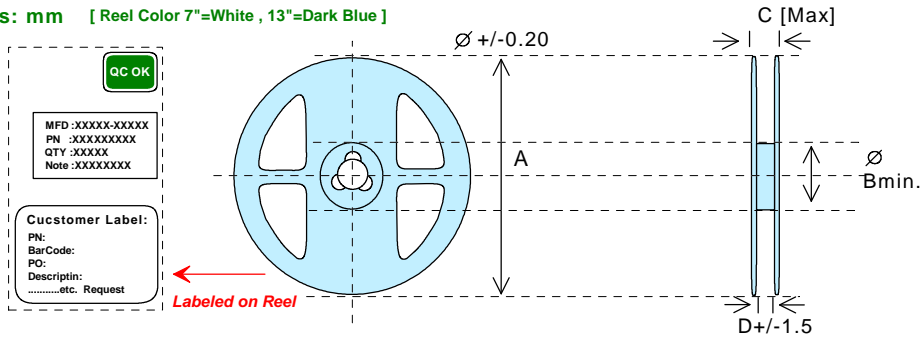


Product Series Code	<b>GBD</b>	Brand	<b>GOTREND</b>
File Version	GBD100505PGH102N-V1R0	Editor	Teddy
Established Date	2014.07.29	Description	Multilayer Ferrite Chip Bead
Latest Edit Date	2014.07.29	Pages	Page : 4



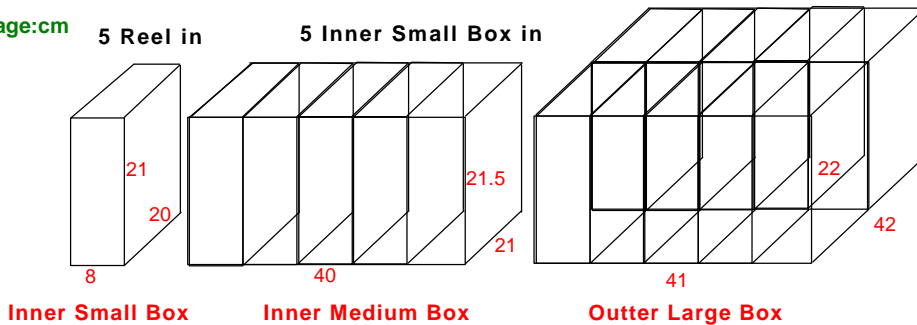
SIZE/mm	A	B	W	D	E	P	G	H	K0	T
<b>060303</b>	0.38+/-0.04	0.68 +/-0.04	8.00+/-0.20	3.50 +/-0.05	1.75 +/-0.10	4.00 +/-0.10	2.00 +/-0.05	4.00 +/-0.10	N/A	1.1 max.
<b>100505</b>	0.62+/-0.05	1.12 +/-0.05	8.00+/-0.10	3.50 +/-0.05	1.75 +/-0.10	4.00 +/-0.10	2.00 +/-0.05	4.00 +/-0.10	N/A	0.60 +/-0.05
<b>160808</b>	1.03 +/-0.05	1.85 +/-0.05	8.00 +/-0.10	3.50 +/-0.05	1.75 +/-0.10	4.00 +/-0.10	2.00 +/-0.05	4.00 +/-0.10	N/A	0.95 +/-0.05
<b>201209</b>	1.45 +/-0.05	2.25 +/-0.05	8.00 +/-0.10	3.50 +/-0.05	1.75 +/-0.10	4.00 +/-0.10	2.00 +/-0.05	4.00 +/-0.10	N/A	0.95 +/-0.05

Reel Dimensions: mm [ Reel Color 7"=White , 13"=Dark Blue ]



SIZE / mm	A	B	C	D	REEL SIZE	QTY/REEL
<b>060303</b>	178	50	20	10	<b>7"</b>	15K
<b>100505</b>	178	50	20	10	<b>7"</b>	10K
<b>160808</b>	178	50	20	10	<b>7"</b>	4K
<b>201209</b>	178	50	20	10	<b>7"</b>	4K

BOX Package:cm





Product Series Code	<b>GBD</b>	Brand	GOTREND
File Version	GBD100505PGH102N-V1R0	Editor	Teddy
Established Date	2014.07.29	Description	Multilayer Ferrite Chip Bead
Latest Edit Date	2014.07.29	Pages	Page : 5

### COMPONENT TEST REPORT

REPORT INFORMATION		TEST EQUIPMENT	
CUSTOMER		Z	
PART NO.		RDC	
DESCRIPTION		IDC	
TEST DATE		SRF	
REPORT NO.		Q	
Test Temperature		DIMENSION	
Test Humidity		SOLDERING	

Test Result....

DIMENSION	ELEC.	SOLDERING	PIN/TERMINAL	MARKING

item NO.	Z	RDC	IDC	Q	SRF
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
AVG.					
R					

Customer Test Note:

NO.	L	W	T	C
1				
2				
3				
4				
5				

QC	QE	FILE