豐晶科技股份有限公司 深圳市豐晶電子有限公司
Gausstek Corp.
http://www.gausstech.com Tel:+886-3-3016938 (Rep.) Tel: +86-755-29737501~3 Fax:+86-755-29737506
E-mail :sales.gausstech.com Fax:+886-3-3027700 E-mail : sales.china@gausstech.com

RoHS COMPLIANT

SPECIFICATION FOR APPROVAL

CUSTOMER : 致遠

CUSTOMER P/N :

OUR DWG No : V45

QUANTITY : **Pcs.** **DATE** : **2009/6/15**

Lead Free / PB Free

GT Parts : **BH03Y314S600R**

Note : 本公司料號第8碼爲包裝數代碼, 會隨著包裝材料的不同而變更

The character number 8 will be changed with difference of packing material

SPECIFICATION **ACCEPTED BY:**	
COMPONENT ENGINEER	
ELECTRICAL ENGINEER	
MECHANICAL ENGINEER	
APPROVED	
REJECTED	

DRAWN BY	Mandy Zhao	CHECKED BY	Amanda Kuo	APPROVED BY	Jimmy Chang

豐晶科技股份有限公司 深圳市豐晶電子有限公司
Gausstek Corp.
http://www.gausstech.com Tel:+886-3-3016938 (Rep.) Tel: +86-755-29737501~3 Fax:+86-755-29737506
E-mail :sales.gausstech.com Fax:+886-3-3027700 E-mail : sales.china@gausstech.com

B_03_31__ Series Specification

1 Scope:

This specification applies to MULTILAYER FERRITE CHIP BEADS

2 Part Numbering: Product Identification

BH	03	Y	31	4	S	600R
a	b	c	d	e	f	g

a: Type of products
b:Dimension: 03:0603 05:0805 06:1206 10:1210 18:1806 12:1812
c:Meterial
d:Thickness :19=0.5mm,31=0.8mm,35=0.9mm,43=1.1mm,50=1.25mm, 51:1.3mm,59=1.5mm,63=1.6mm
e:Packing PCS/REEL: 4=4,000, 3=3,000, 2=2,000
f:Tolerance: S=+-25%, M=+-20%
g:Impedance: 600R=600 Ohm, 1K=1,000 Ohm

3 Rating:

Operating Temperature: －５５℃～１２５℃
Storage Temperature: Under ２５℃, Humidity 40％～65％

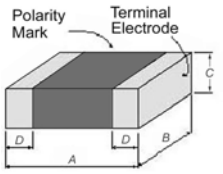
4 Marking:

NO MARKING

5 Standard Testing Condition

	Unless otherwise specified	In case of doubt
Temperature	Ordinary Temperature(15 to 35℃)	20±2℃
Humidity	Ordinary Humidity(25 to 85% RH)	60 to 70 % RH

6 Configuration and Dimensions:



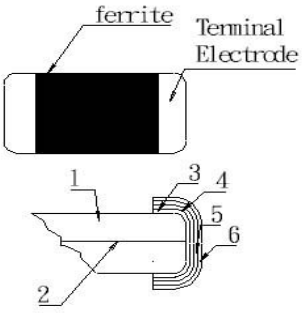
Type	B_03_31_
Remark	0603(160808)
A	1.6 ± 0.2
B	0.8 ± 0.15
C	0.8 ± 0.15
D	0.3 ± 0.2

7 ELECTRICAL CHARACTERISTICS ：

Part No.	Impedance (Ω±25%)	Test Freq. (MHZ)	RDC (Ω)Max.	Rated Current (mA)Max.
BH03Y314S600R	600	100 MHZ,200 mV	0.2	1000

8 STURCURE:

8.1Construction:



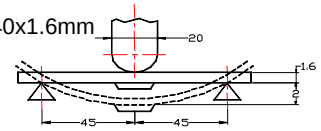
8.2 Material List:

NO	PART	MATERIAL
1	Ferrite Substance	NiO-CuO-ZnO-Ferrite
2	Silver electrode	Ag
3	Silver electrode	Ag
4	Cu plating	Cu
5	Ni plating	Ni
6	Sn plating	Sn

B_03_31__ Series Specification

9 Reliability Of Ferrite Multilayer Chip Bead

1-1.Mechanical Performance

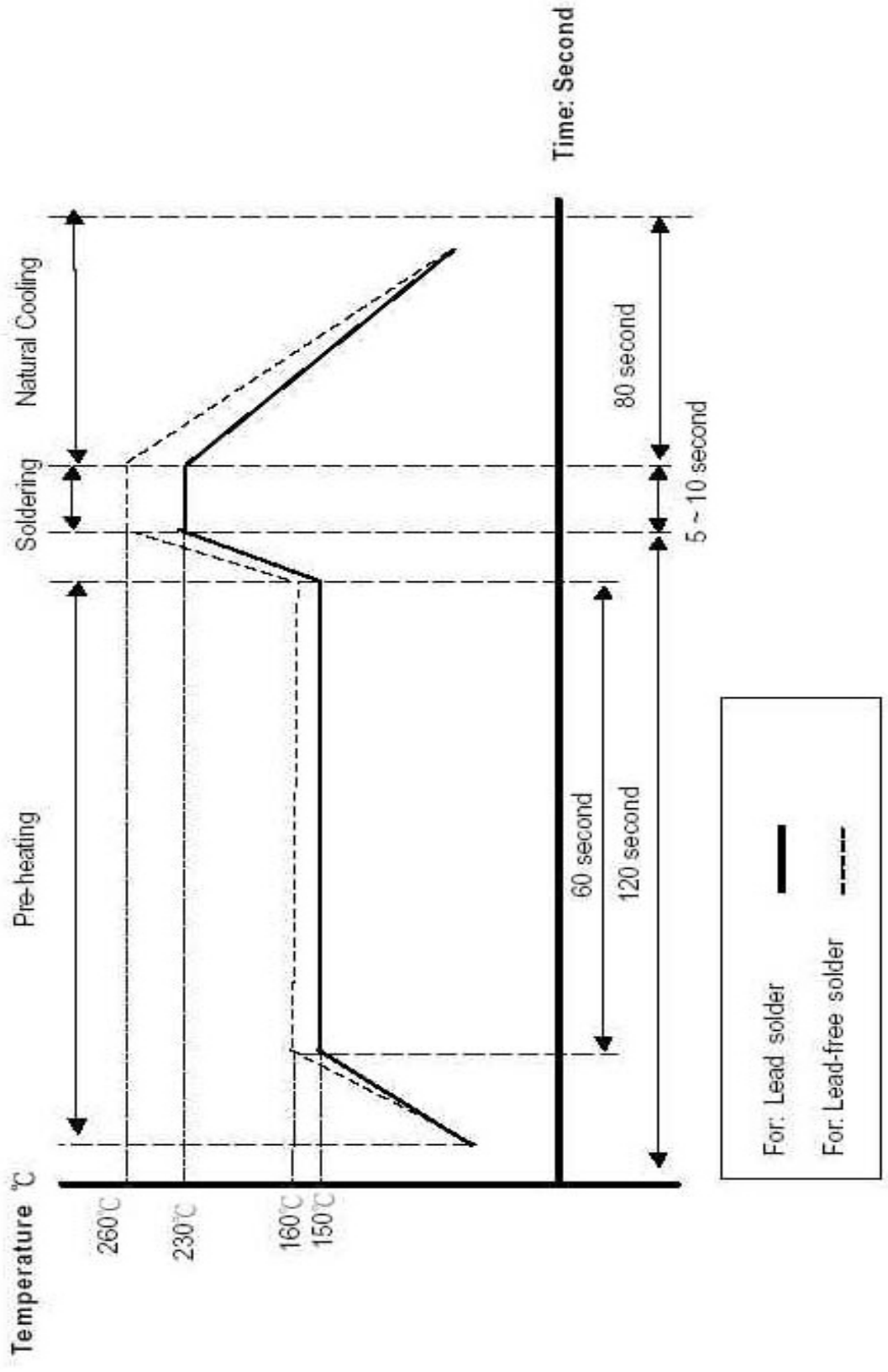
No	Item	Specification	Test Method
1-1-1	Flexure Strength	The forces applied on the right conditions must not damage the terminal electrode and the ferrite	Test device shall be soldered on the substrate Substrate Dimension: 100x40x1.6mm Deflection: 2.0mm Keeping Time: 30sec  *For 100505, substrate dimension is 100x40x0.8mm
1-1-2	Vibration		Test device shall be soldered on the substrate Oscillation Frequency: 10 to 55 to 10Hz for 1min Amplitude: 1.5mm Time: 2hrs for each axis (X, Y & Z), total 6hrs
1-1-3	Resistance to Soldering Heat	Appearance: No damage More than 75% of the terminal electrode should be covered with solder. Impedance : within ±30% of initial value	Pre-heating: 150℃, 1min Solder Composition: Sn/Pb = 63/37 Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 260±5℃ Immersion Time: 10±1sec
1-1-4	Solder ability	The electrodes shall be at least 90% covered with new solder coating	Pre-heating: 150℃, 1min Solder Composition: Sn/Pb = 63/37 Solder Temperature: 220±5℃ Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245±5℃(Pb-Free) Immersion Time: 4±1sec
1-1-5	Terminal Strength Test	100505 series : ≧ 0.2 kg 160808 series : ≧ 0.5 kg 201209 series : ≧ 1.0 kg other series : ≧ 2.0 kg BAY/BAQ321609 series:≧ 1.5 kg (Push)	Test device shall be soldered on the substrate 

1-2.Environmental Performance

No	Item	Specification	Test Method
1-2-1	Temperature Cycle	Appearance: No damage Impedance: within±30% of initial value	One cycle: Step / Temperature (℃) / Time (min) 1 / -55±3 / 30 2 / 25±2 / 3 3 / 125±3 / 30 4 / 25±2 / 3 Total: 100cycles Measured after exposure in the room condition for 24hrs
1-2-2	Humidity Resistance		Temperature: 40±2℃ Relative Humidity: 90 ~ 95% / Time: 1000hrs Measured after exposure in the room condition for 24hrs
1-2-3	High Temperature Resistance		Temperature: 125±3℃ / Relative Humidity: 0% Applied Current: Rated Current /Time: 1000hrs Measured after exposure in the room condition for 24hrs
1-2-4	Low Temperature Resistance		Temperature: -55±3℃ Relative Humidity: 0% / Time: 1000hrs Measured after exposure in the room condition for 24hrs

B_03_31__ Series Specification

9 Reliability Of Ferrite Multilayer Chip Bead



For Lead-Free Type

1. Re-flow possible times : within 2 times
2. Nitrogen adopted is recommended while in re-flow

豐晶科技股份有限公司 深圳市豐晶電子有限公司
Gausstek Corp.
http://www.gausstech.com Tel:+886-3-3016938 (Rep.) Tel: +86-755-29737501~3 Fax:+86-755-29737506
E-mail :sales.gausstech.com Fax:+886-3-3027700 E-mail : sales.china@gausstech.com

B_03_31__ Series Specification

10 TEST DATA FOR PREPRODUCTION SAMPLES

DESCRIPTION: BH03Y314S600R

MEAS.	Z	RDC	A	B	C	D					
Item	(Ω)	(Ω)	m/m	m/m	m/m	m/m					
Spec Customer	600±25%										
Suggest		0.20+0	1.6±0.15	0.8±0.15	0.8±0.15	0.3±0.2					
Test Freq. (MHz)	200mV 100MHz										
1	594	0.132	1.61	0.82	0.82	0.33					
2	606	0.133	1.6	0.8	0.79	0.32					
3	655	0.133	1.59	0.82	0.79	0.33					
4	583	0.136	1.59	0.81	0.79	0.32					
5	625	0.134	1.62	0.81	0.8	0.31					
6	586	0.131	1.62	0.83	0.82	0.33					
7	638	0.135	1.6	0.83	0.81	0.32					
8	632	0.134	1.61	0.82	0.81	0.34					
9	576	0.134	1.61	0.81	0.82	0.31					
10	604	0.13	1.61	0.81	0.82	0.33					
$\overline{X}$	609.9	0.1332	1.606	0.816	0.807	0.324					
R	79	0.006	0.03	0.03	0.03	0.03					

TEST INSTRUMENT:

HP4291A RF IMPEDANCE / MATERIAL ANALYZER FOR Z
CHEN HWA 502BC / HP4338B FOR RDC

APPEARANCE AND DIMENSIONS :

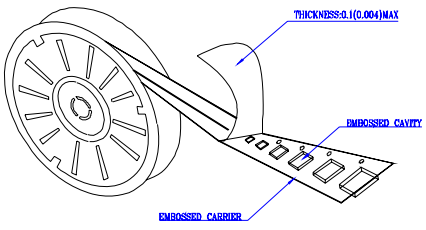
SPEC : MEET ITEM 6.
TEST METHOD : VISUAL INSPECTION AND MEASURED WITH SILDE CALIPERS.

TESTING CONDITIONS :

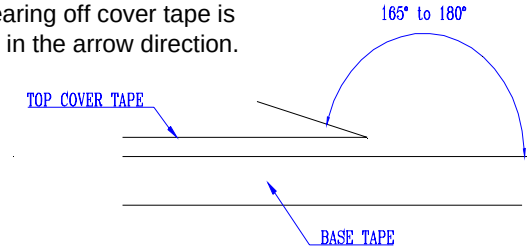
	Unless otherwise specified	In case of doubt
Temperature	Ordinary Temperature (15 to 35℃)	20 ± 2 ℃
Humidity	Ordinary Humidity (25 to 85 %RH)	60 to 70 %RH

11 PACKAGING

11.1 Packaging -Cover tape



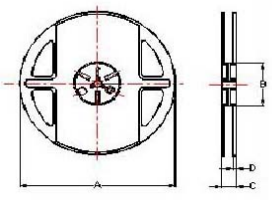
The force for tearing off cover tape is 10 to 60 grams in the arrow direction.



11.2 Packaging Quantity

TYPE	BULK	CHIP / REEL
B_02_19__	✓	10000
B_03_31__	✓	4000
B_05_35__	✓	4000
B_05_47__	✓	3000
B_06_43__	✓	3000
B_06_63__	✓	2000
B_10_51__	✓	2500
B_18_63__	✓	2000
B_12_59__	✓	1000

11.3 Reel Dimensions



Dimensions in mm

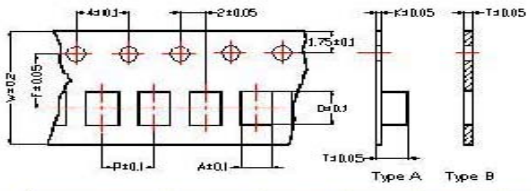
TYPE	A	B	C	D
B_02_19__	178	60	10	2
B_03_31__	178	60	10	2
B_05_35__	178	60	10	2
B_05_47__	178	60	10	2
B_06_43__	178	60	10	2
B_06_63__	178	60	10	2
B_10_51__	178	60	10	2
B_18_63__	178	60	14	2
B_12_59__	178	60	14	2

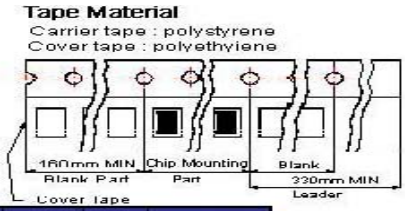
豐晶科技股份有限公司 深圳市豐晶電子有限公司
Gausstek Corp.
http://www.gausstech.com Tel:+886-3-3016938 (Rep.) Tel: +86-755-29737501~3 Fax:+86-755-29737506
E-mail :sales.gausstech.com Fax:+886-3-3027700 E-mail : sales.china@gausstech.com

B_03_31__ Series Specification

11 PACKAGING

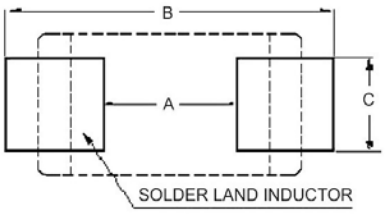
11.4 Tape Dimensions in mm





TYPE	A	B	T	W	P	F	K	Tape Typ.
B_02_19__	0.65	1.15	0.60	8	2	3.5		B
B_03_31__	1.00	1.80	0.95	8	4	3.5		B
B_05_35__	1.42	2.30	1.04	8	4	3.5	0.22	A
B_05_47__	1.40	2.25	1.40	8	4	3.5	0.22	A
B_06_43__	1.00	3.50	1.27	8	4	3.5	0.22	A
B_06_63__	1.88	3.61	1.78	8	4	3.5	0.22	A
B_10_51__	2.80	3.42	1.64	8	4	3.5	0.22	A
B_18_63__	1.94	4.94	1.90	12	4	5.5	0.22	A
B_12_59__	3.66	4.95	1.85	12	8	5.5	0.22	A

12 Recommended Pattern



Dimensions in mm

Type	A	B	C
B_02_19__(100505) (0402)	0.4	1.2~1.4	0.4
B_03_31__(160808) (0603)	0.8	2.4~3.4	0.6
B_05_35__(201209) (0805)	1.2	3.0~4.0	1.0
B_06_43__(321611) (1206)	2.0	4.2~5.2	1.2
B_06_63__(321616) (1206)	2.0	4.2~5.2	1.2
B_10_51__(322513) (1210)	2.0	5.5~6.5	1.8
B_18_63__(451616) (1806)	3.0	5.5~6.5	1.2
B_12_59__(453215) (1812)	3.0	5.5~6.5	2.4

13 Note:

1. Please make sure that your product is has been evaluated and confirmed against your specifications when our product is mounted to your product.
2. Do not knock nor drop.
3. All the items and parameters in this product specification have been prescribed on the premise that our product is used for the purpose,under the condition and in the environment agreed upon between you and us. You are requested not to use our product deviating from such agreement.
4. Please keep the distance between transformer/coil and other components (refer to the standard IEC 950)

14 Curve: