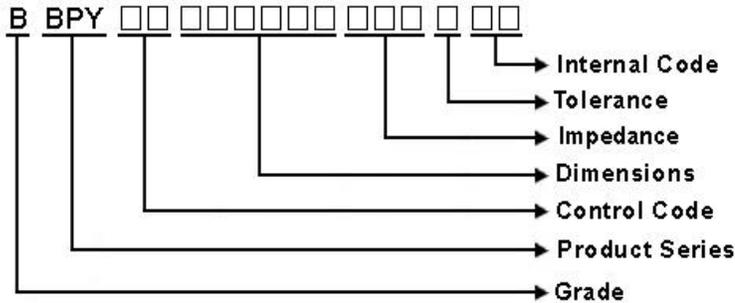


## BBPY00201209 Series Specification

**1** **Scope:** This specification applies to MULTILAYER FERRITE CHIP BEADS

**2** **Part Numbering:**



**3** **Rating:**

Operating Temperature: - 5 5 °C ~ 1 2 5 °C (Including self - temperature rise)

Storage Temperature: - 5 5 °C ~ 1 2 5 °C (after PCB)

- 5 °C ~ 4 0 °C, Humidity 4 0 % ~ 7 0 % (before PCB)

**4** **Marking:**

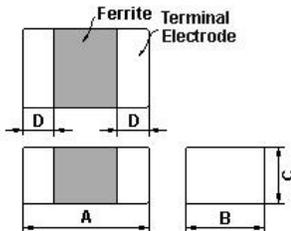
No Marking

**5** **Standard Testing Condition**

	Unless otherwise specified	In case of doubt
Temperature	Ordinary Temperature (15 to 35 °C)	20 to 30 °C
Humidity	Ordinary Humidity (25 to 85% RH)	50 to 80 %RH

## BBPY00201209 Series Specification

### 6 Configuration and Dimensions:



Dimensions in mm	
TYPE	201209
A	2.00±0.20
B	1.25±0.20
C	0.90±0.20
D	0.50±0.30

#### Net Weight (grms)

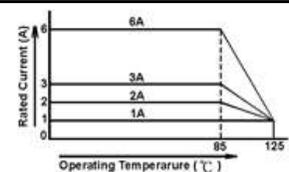
Size Code	Net Weight (grms)
201209	0.01231

### 7 Electrical Characteristics:

Part No.	Impedance (Ω)	Test Freq.	RDC (Ω)Max.	Rated Current (mA)Max.
BBPY00201209100□00	10	100 MHz,200 mV	0.01	6000
BBPY00201209110□00	11	100 MHz,200 mV	0.01	6000
BBPY00201209170□00	17	100 MHz,200 mV	0.02	5000
BBPY00201209300□00	30	100 MHz,200 mV	0.015	4000
BBPY00201209500□00	50	100 MHz,200 mV	0.025	3000
BBPY00201209600□00	60	100 MHz,200 mV	0.03	3000
BBPY00201209700□00	70	100 MHz,200 mV	0.04	3000
BBPY00201209800□00	80	100 MHz,200 mV	0.04	3000
BBPY00201209101□00	100	100 MHz,200 mV	0.04	3000
BBPY00201209121□00	120	100 MHz,200 mV	0.04	3000
BBPY00201209221□00	220	100 MHz,200 mV	0.08	2000
BBPY00201209301□00	300	100 MHz,200 mV	0.08	2000
BBPY00201209331□00	330	100 MHz,200 mV	0.08	2000
BBPY00201209471□00	470	100 MHz,200 mV	0.1	2000
BBPY00201209601□00	600	100 MHz,200 mV	0.1	2000
BBPY00201209102□00	1000	100 MHz,200 mV	0.12	1500
BBPY00201209152□00	1500	100 MHz,200 mV	0.3	1000

**NOTE:** □-tolerance Y=±25% / T=±30%

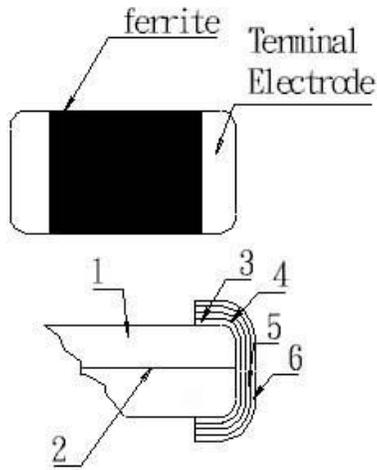
1. Operating temperature range - 5 5°C ~ 1 2 5°C(Including self - temperature rise)
2. Rate Current : Applied the current to coils, the temperature rise shall not be more than 30°C
3. As for BBPY type. Rated Current is derated as right figure depending on the operating temperature.



## BBPY00201209 Series Specification

### 8 BBPY00201209 Series

#### 8.1 Construction:



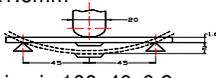
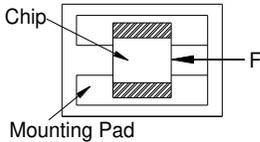
#### 8.2 Material List:

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

## BBPY00201209 Series Specification

### 9 Reliability Of Ferrite Multilayer Chip Bead

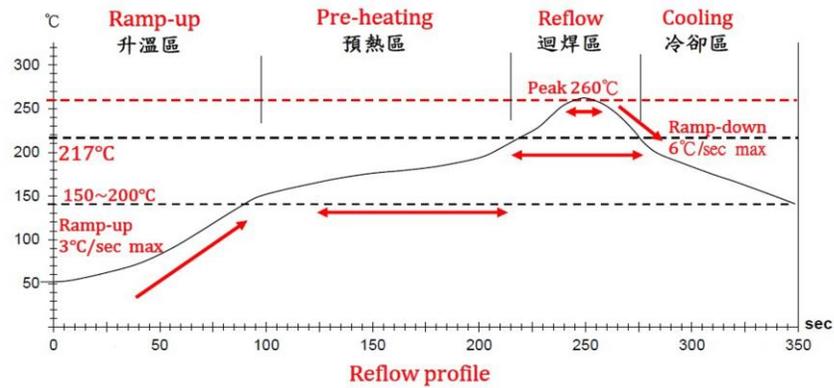
#### 1-1.Mechanical Performance

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 $\pm 30\%$ of initial value	Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 260 $\pm 5$ °C Immersion Time: 10 $\pm 1$ sec
1-1-4	Solder ability	The electrodes shall be at least 95% covered with new solder coating	Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5(Pb-Free) Solder Temperature: 245 $\pm 5$ °C (Pb-Free) Immersion Time: 4 $\pm 1$ sec
1-1-5	Terminal Strength Test	No split termination  Chip Mounting Pad	Test device shall be soldered on the substrate, then apply a force in the direction of the arrow. Force : 5N Keeping Time: 10 $\pm 1$ sec

#### 1-2.Environmental Performance

No	Item	Specification	Test Method															
1-2-1	Temperature Cycle	Appearance: No damage Impedance: within $\pm 30\%$ of initial value	One cycle: <table border="1"> <thead> <tr> <th>Step</th> <th>Temperature (°C)</th> <th>Time (min)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-55<math>\pm 3</math></td> <td>30</td> </tr> <tr> <td>2</td> <td>25<math>\pm 2</math></td> <td>3</td> </tr> <tr> <td>3</td> <td>125<math>\pm 3</math></td> <td>30</td> </tr> <tr> <td>4</td> <td>25<math>\pm 2</math></td> <td>3</td> </tr> </tbody> </table> Total: 100cycles Measured after exposure in the room condition for 24hrs	Step	Temperature (°C)	Time (min)	1	-55 $\pm 3$	30	2	25 $\pm 2$	3	3	125 $\pm 3$	30	4	25 $\pm 2$	3
Step	Temperature (°C)	Time (min)																
1	-55 $\pm 3$	30																
2	25 $\pm 2$	3																
3	125 $\pm 3$	30																
4	25 $\pm 2$	3																
1-2-2	Humidity Resistance		Temperature: 40 $\pm 2$ °C Relative Humidity: 90 ~ 95% / Time: 1000hrs Measured after exposure in the room condition for 24hrs															
1-2-3	High Temperature Resistance		Temperature: 125 $\pm 3$ °C / 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 $\pm 3$ °C Relative Humidity: 0% / Time: 1000hrs Measured after exposure in the room condition for 24hrs															

## BBPY00201209 Series Specification



Lead-Free(LF)標準溫度分析範圍

Refer to J-STD-020C

管制項目 Item.	升溫區 Ramp-up	預熱區 Pre-heating	迴焊區 Reflow	Peak Temp	冷卻區 Cooling
溫度範圍 Temp.scope	R.T ~ 150°C	150°C ~ 200°C	Above 217°C	260±5°C	Peak Temp.~150°C
標準時間 Time spec.	-	60 ~ 180 sec	60 ~ 150 sec	20 ~ 40 sec	-
實際時間 Time result	-	75 ~ 100 sec	90 ~ 120 sec	20 ~ 35 sec	-

**NOTE :**

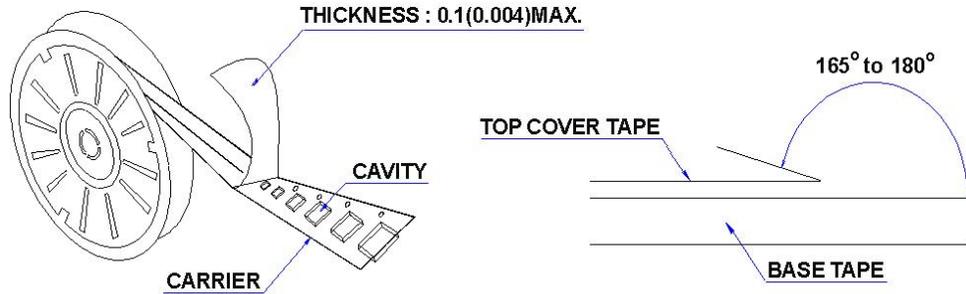
1. Re-flow possible times : within 2 times
2. Nitrogen adopted is recommended while in re-flow
3. Products can only be soldered with reflow

# BBPY00201209 Series Specification

## 11 Packaging:

### 11.1 Packaging -Cover Tape

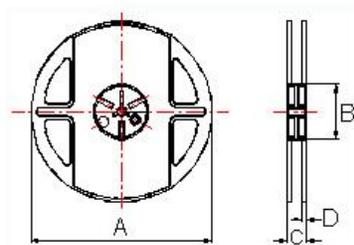
The force for tearing off cover tape is 10 to 100 grams in the arrow direction.



### 11.2 Packaging Quantity

TYPE	PCS/REEL
060303	15000
100505	10000
160808	4000
201209	4000

### 11.3 Reel Dimensions



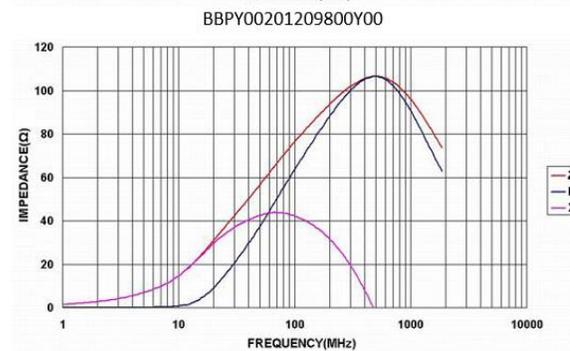
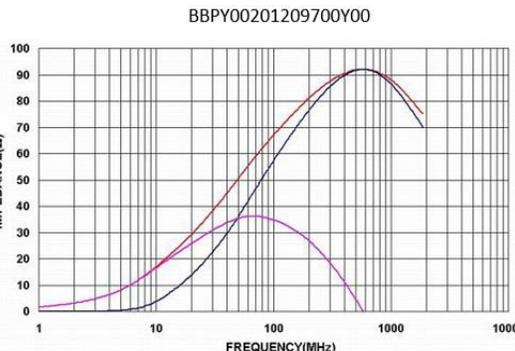
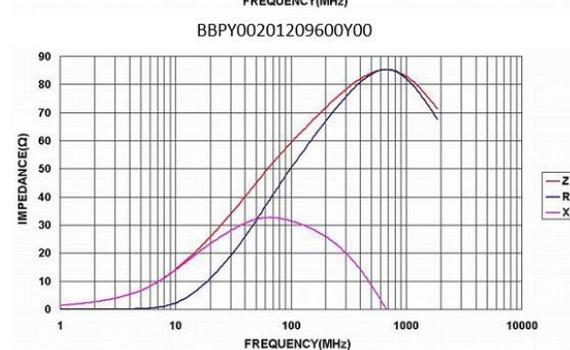
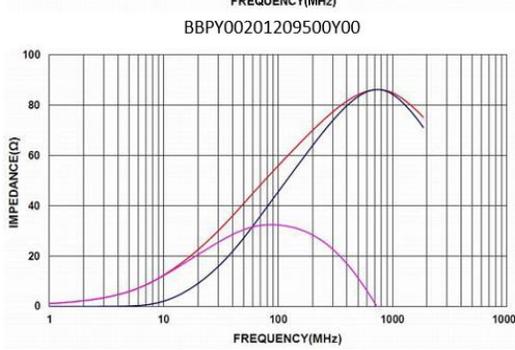
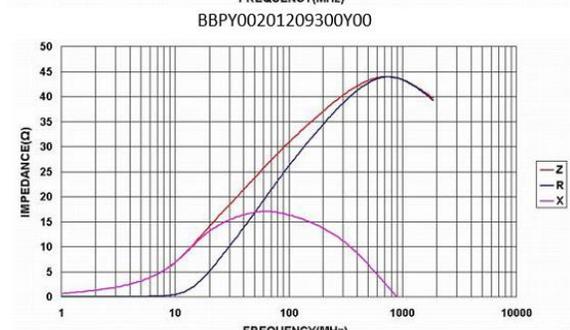
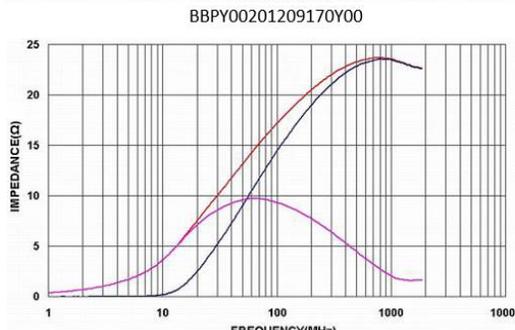
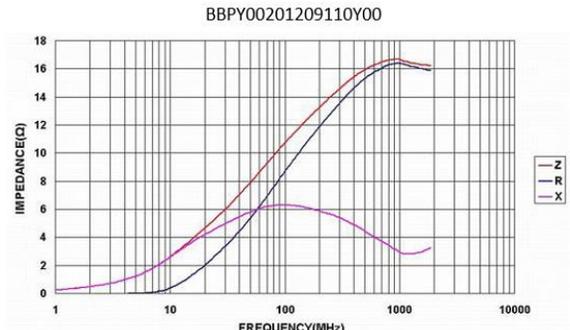
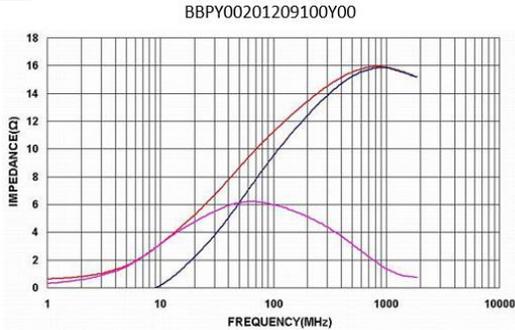
Dimensions in mm

TYPE	A	B	C	D
060303	178	60	12	1.5
100505	178	60	12	1.5
160808	178	60	12	1.5
201209	178	60	12	1.5



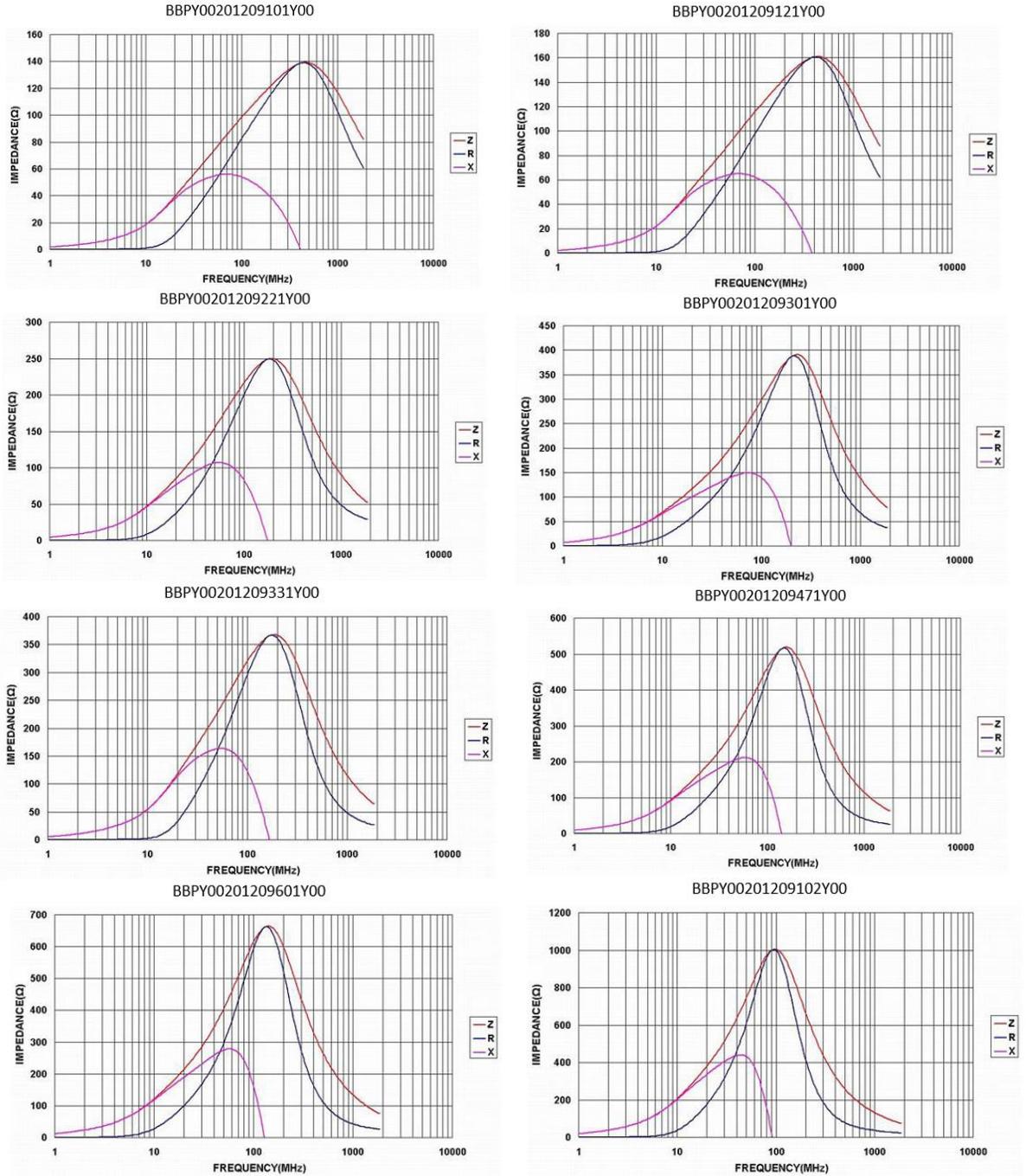
# BBPY00201209 Series Specification

**14** Graph:



**BBPY00201209 Series Specification**

**14** Graph:



# BBPY00201209 Series Specification

**14** Graph:

