



**THE DATASHEET OF
BBPY00201209300Y00**



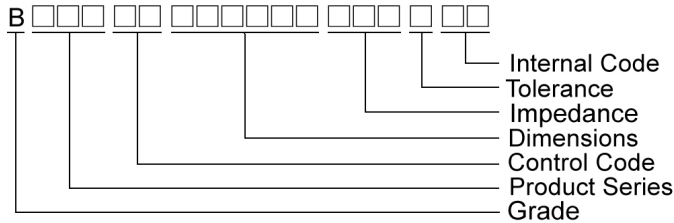
SMD Multi-layer Ferrite Chip Beads

BBPY Series

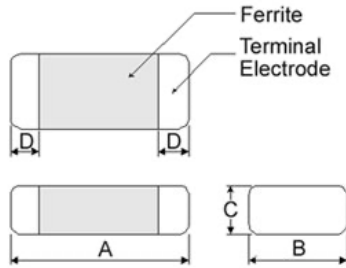


Chilisin offers a wide range of multi-layered ferrite chip beads with various sizes, frequency characteristics, and impedance values for EMI solutions. These ferrite formulas are used to compose seven types of EMI suppression chip beads: BBSY, BBBK, BBSJ, BBGK, BBPY, BBUP, BBNQ, BBFY, BBFJ and BBHV series.

Product Identification



Shape and Dimensions

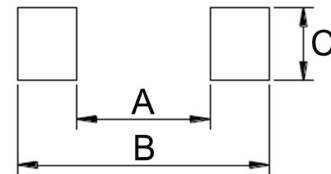


Dimensions in mm

| TYPE | A | B | C | D |
|---------|----------|-----------|----------|-----------|
| ①060303 | 0.6±0.03 | 0.30±0.03 | 0.3±0.03 | 0.15±0.05 |
| ②100505 | 1.0±0.10 | 0.50±0.10 | 0.5±0.10 | 0.25±0.10 |
| ③160805 | 1.6±0.15 | 0.80±0.15 | 0.5±0.15 | 0.3±0.2 |
| ④160808 | 1.6±0.15 | 0.80±0.15 | 0.8±0.15 | 0.3±0.2 |
| ⑤201209 | 2.0±0.20 | 1.25±0.20 | 0.9±0.20 | 0.5±0.3 |
| ⑥321611 | 3.2±0.20 | 1.60±0.20 | 1.1±0.20 | 0.5±0.3 |
| ⑦453215 | 4.5±0.25 | 3.20±0.20 | 1.5±0.20 | 0.5±0.3 |

- ① : BBSY / BBSJ / BBNQ / BBPY
- ② : BBSY / BBSJ / BBNQ / BBPY / BBUP / BBFY / BBFJ
- ③ : BBUP ④ : BBBK / BBSJ / BBGK / BBPY / BBNQ / BBUP / BBHV
- ⑤ : BBBK / BBGK / BBPY / BBUP ⑥ : BBSY / BBBK / BBPY / BBUP
- ⑦ : BBPY / BBUP

Recommended Pattern



Dimensions in mm

| TYPE | A | B | C |
|---------|-----------|-------------|-----------|
| ①060303 | 0.2 ~ 0.3 | 0.75 ~ 1.05 | 0.3 |
| ②100505 | 0.4 | 1.2 ~ 1.4 | 0.5 |
| ③160805 | 0.7 ~ 0.8 | 1.8 ~ 2.0 | 0.6 ~ 0.8 |
| ④160808 | 0.7 ~ 0.8 | 1.8 ~ 2.0 | 0.6 ~ 0.8 |
| ⑤201209 | 1.0 ~ 1.2 | 2.6 ~ 4.0 | 1.0 ~ 1.4 |
| ⑥321611 | 2.0 ~ 2.4 | 4.2 ~ 5.2 | 1.3 ~ 1.9 |
| ⑦453215 | 3.0 | 5.5 ~ 6.5 | 2.4 |

* Don't apply narrower pattern than listed above to BBPY and BBUP
Narrow pattern might cause excessive heat or open circuit.

Dimension Conversion

| Code | Dimension in mm (AxBxC) | EIA |
|--------|----------------------------|------|
| 060303 | 0.6X0.3X0.3 | 0201 |
| 100505 | 1.0X0.5X0.5 | 0402 |
| 160805 | 1.6x0.8x0.5 | 0603 |
| 160808 | 1.6x0.8x0.8 | 0603 |
| 201209 | 2.0x1.2x0.9 | 0805 |
| 321611 | 3.2x1.6x1.1 | 1206 |
| 453215 | 4.5x3.2x1.5 | 1812 |

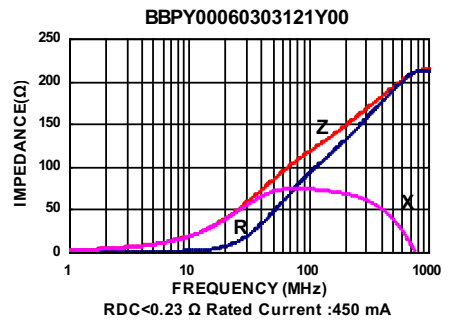
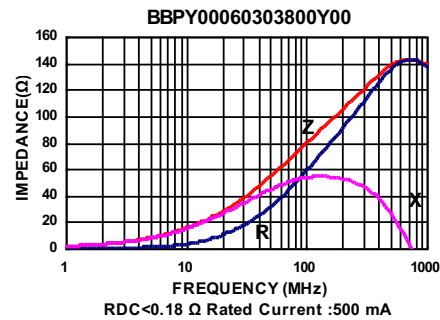
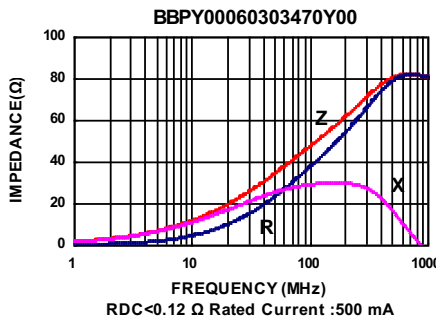
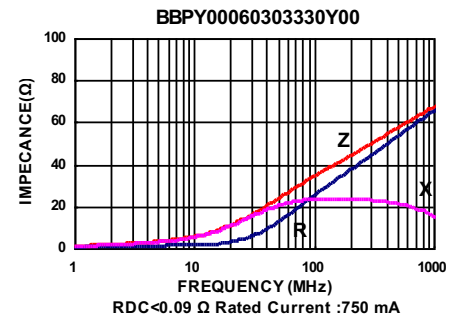
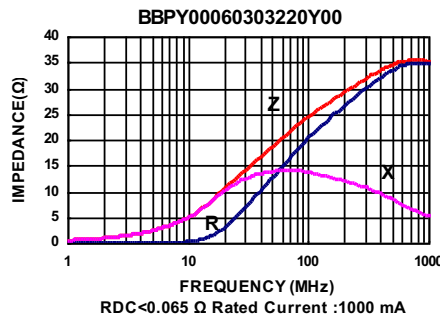
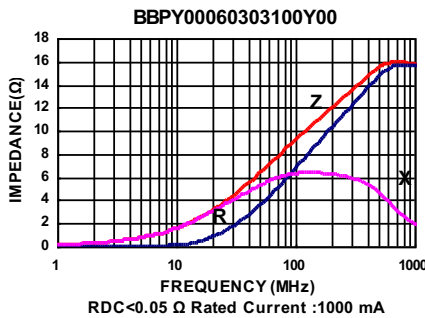
Electrical Characteristics

| Part Number | Impedance ($\Omega \pm 25\%$) | Test Frequency (MHz) | RDC (Ω) Max | Rated current (mA) Max |
|--------------------|------------------------------------|-------------------------|-------------------------|---------------------------|
| BBPY00060303100Y00 | 10 | 100 | 0.050 | 1000 |
| BBPY00060303220Y00 | 22 | 100 | 0.065 | 1000 |
| BBPY00060303330Y00 | 33 | 100 | 0.090 | 750 |
| BBPY00060303470Y00 | 47 | 100 | 0.120 | 500 |
| BBPY00060303800Y00 | 80 | 100 | 0.180 | 500 |
| BBPY00060303121Y00 | 120 | 100 | 0.230 | 450 |
| BBPY00060303241Y00 | 240 | 100 | 0.400 | 350 |
| BBPY00060303331Y00 | 330 | 100 | 0.500 | 300 |

Note: When ordering, please specify tolerance code. Tolerance : $Y = \pm 25\%$

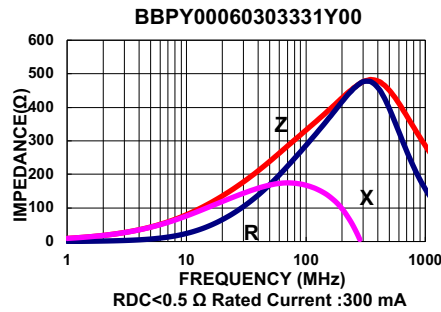
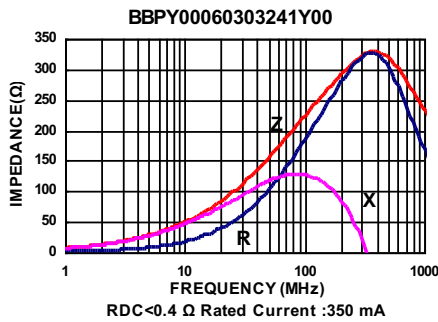
- Operating temperature range - 55°C ~ 125°C(Including self - temperature rise)
- Rate Current : Applied the current to coils, the temperature rise shall not be more than 30°C
- Measure Equipment :
Z : HP4291A
RDC : HP4338B or CHEN HWA 502

Test Instruments : Agilent E4991A Impedance / Material Analyzer



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BBPY Series



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| Part Number | Impedance ($\Omega \pm 25\%$) | Test Frequency (MHz) | RDC (Ω) Max | Rated current (mA) Max |
|--------------------|------------------------------------|-------------------------|-------------------------|---------------------------|
| BBPY00100505100Y00 | 10 | 100 | 0.03 | 2000 |
| BBPY00100505250Y00 | 25 | 100 | 0.05 | 1700 |
| BBPY00100505300Y00 | 30 | 100 | 0.05 | 1700 |
| BBPY00100505320Y00 | 32 | 100 | 0.05 | 1700 |
| BBPY00100505400Y00 | 40 | 100 | 0.075 | 1500 |
| BBPY00100505500Y00 | 50 | 100 | 0.075 | 1500 |
| BBPY00100505600Y00 | 60 | 100 | 0.075 | 1500 |
| BBPY00100505680Y00 | 68 | 100 | 0.09 | 1200 |
| BBPY00100505700Y00 | 70 | 100 | 0.09 | 1200 |
| BBPY00100505800Y00 | 80 | 100 | 0.09 | 1200 |
| BBPY00100505101Y00 | 100 | 100 | 0.09 | 1200 |
| BBPY00100505121Y00 | 120 | 100 | 0.09 | 1400 |
| BBPY00100505151Y00 | 150 | 100 | 0.14 | 1400 |
| BBPY00100505181Y00 | 180 | 100 | 0.14 | 900 |
| BBPY00100505221Y00 | 220 | 100 | 0.18 | 1100 |
| BBPY00100505601Y00 | 600 | 100 | 0.34 | 700 |
| BBPY00100505102Y00 | 1000 | 100 | 0.49 | 500 |

Note: When ordering, please specify tolerance code. Tolerance : Y \pm 25%

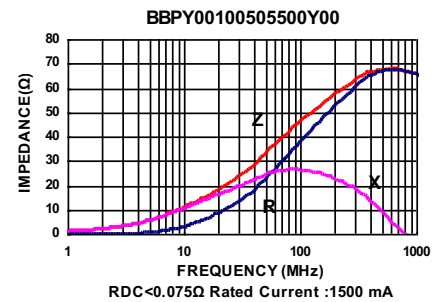
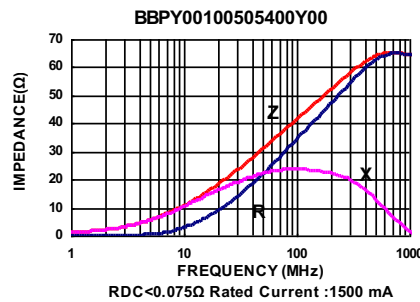
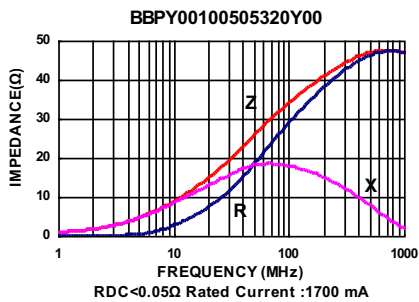
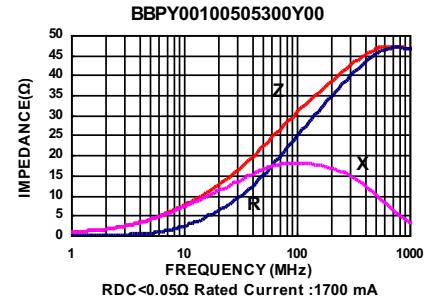
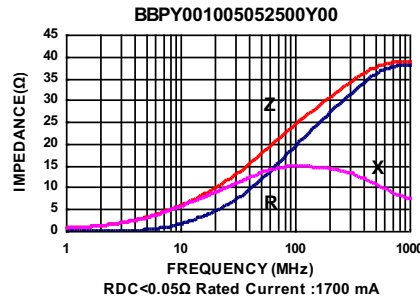
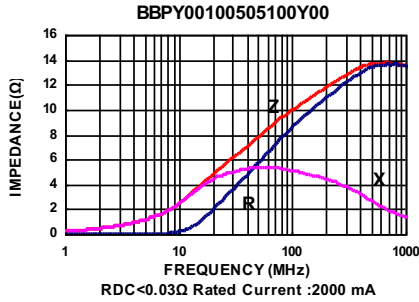
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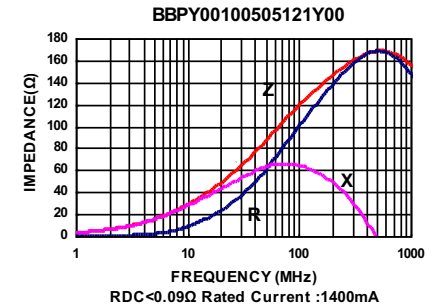
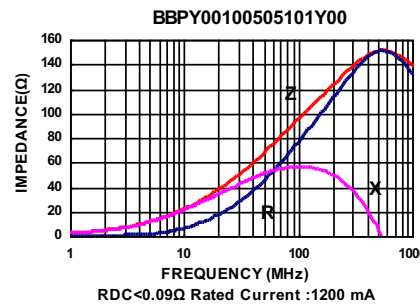
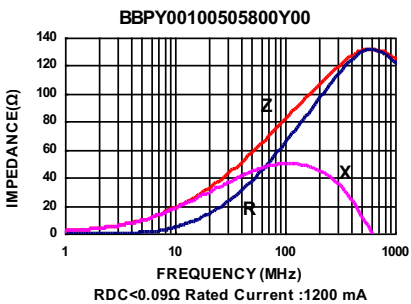
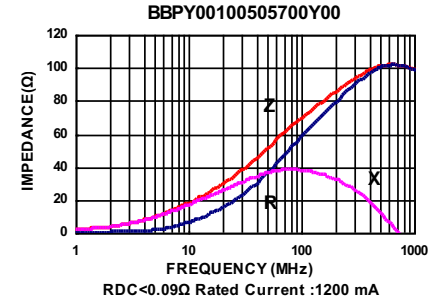
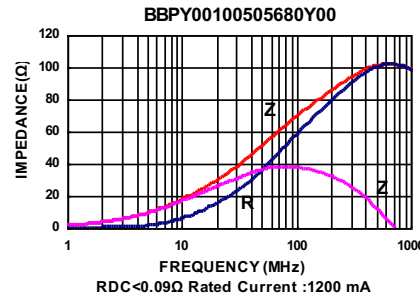
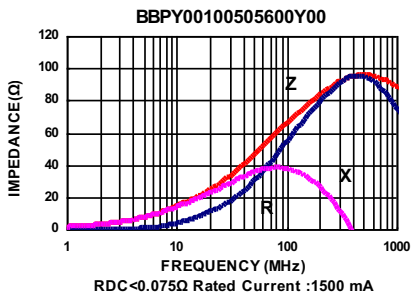
BBPY Series



Test Instruments : Agilent E4991A Impedance / Material Analyzer

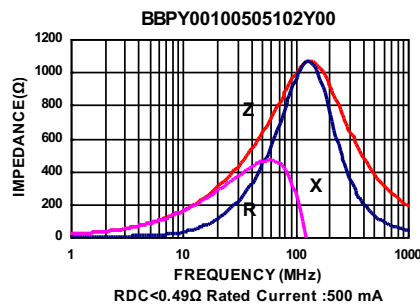
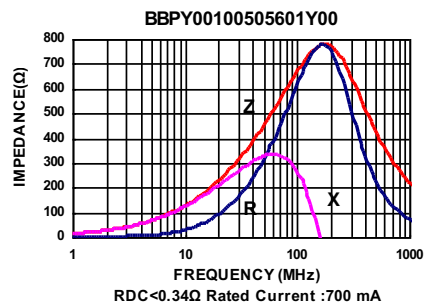
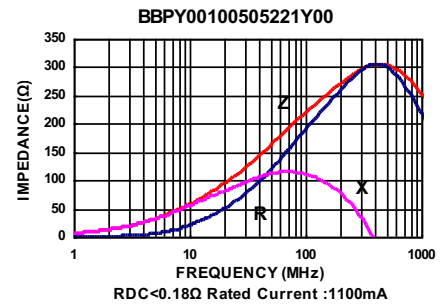
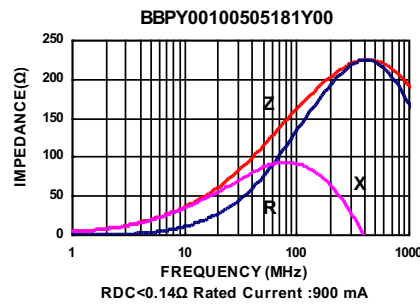
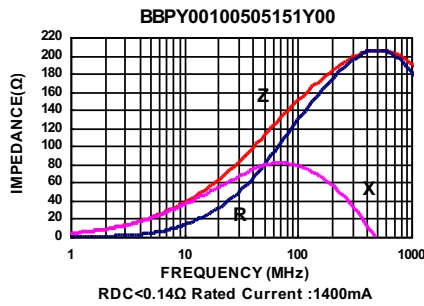


Test Instruments : Agilent E4991A Impedance / Material Analyzer



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| Part Number | Impedance ($\Omega \pm 25\%$) | Test Frequency (MHz) | RDC (Ω) Max | Rated current (mA) Max |
|--------------------|------------------------------------|-------------------------|-------------------------|---------------------------|
| BBPY00160808100Y00 | 10 | 100 | 0.020 | 4000 |
| BBPY00160808110Y00 | 11 | 100 | 0.020 | 4000 |
| BBPY00160808190Y00 | 19 | 100 | 0.03 | 3000 |
| BBPY00160808220Y00 | 22 | 100 | 0.030 | 3000 |
| BBPY00160808250Y00 | 25 | 100 | 0.03 | 3000 |
| BBPY00160808260Y00 | 26 | 100 | 0.03 | 3000 |
| BBPY00160808300Y00 | 30 | 100 | 0.030 | 3000 |
| BBPY00160808330Y00 | 33 | 100 | 0.035 | 3000 |
| BBPY00160808400Y00 | 40 | 100 | 0.035 | 3000 |
| BBPY00160808470Y00 | 47 | 100 | 0.04 | 3000 |
| BBPY00160808500Y00 | 50 | 100 | 0.04 | 3000 |
| BBPY00160808600Y00 | 60 | 100 | 0.040 | 3000 |
| BBPY00160808680Y00 | 68 | 100 | 0.05 | 2500 |
| BBPY00160808700Y00 | 70 | 100 | 0.05 | 2500 |
| BBPY00160808750Y00 | 75 | 100 | 0.05 | 2500 |
| BBPY00160808800Y00 | 80 | 100 | 0.050 | 2500 |

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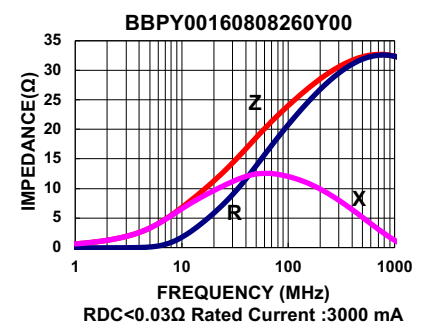
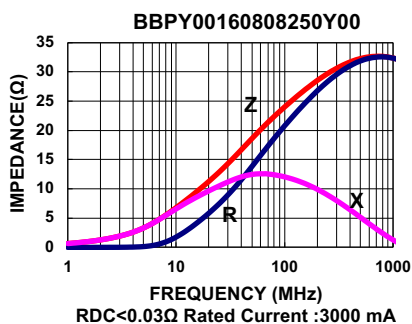
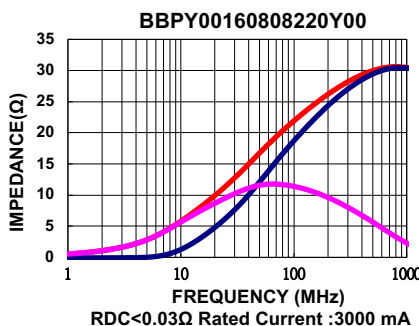
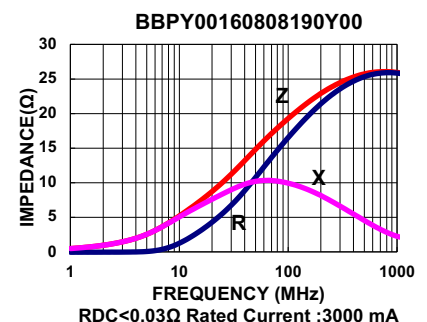
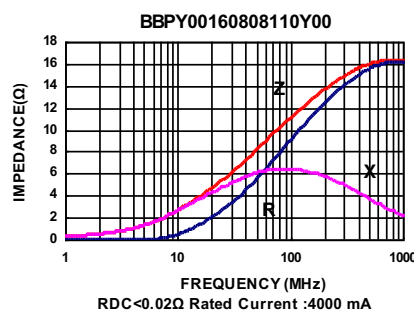
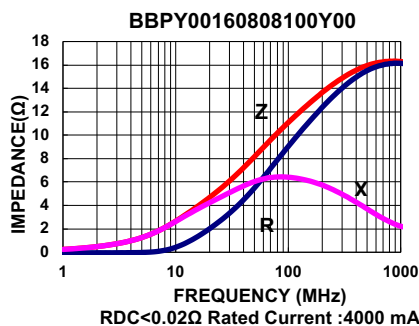


| | | | | |
|--------------------|------|-----|-------|------|
| BBPY00160808101Y00 | 100 | 100 | 0.050 | 2500 |
| BBPY00160808121Y00 | 120 | 100 | 0.080 | 2500 |
| BBPY00160808151Y00 | 150 | 100 | 0.085 | 2000 |
| BBPY00160808181Y00 | 180 | 100 | 0.090 | 2000 |
| BBPY00160808201Y00 | 200 | 100 | 0.095 | 2000 |
| BBPY00160808221Y00 | 220 | 100 | 0.100 | 2000 |
| BBPY00160808241Y00 | 240 | 100 | 0.12 | 1500 |
| BBPY00160808301Y00 | 300 | 100 | 0.120 | 1500 |
| BBPY00160808331Y00 | 330 | 100 | 0.120 | 1500 |
| BBPY00160808471Y00 | 470 | 100 | 0.150 | 1500 |
| BBPY00160808601Y00 | 600 | 100 | 0.200 | 1000 |
| BBPY00160808102Y00 | 1000 | 100 | 0.250 | 800 |
| BBPY00160808122Y00 | 1200 | 100 | 0.250 | 800 |
| BBPY00160808152Y00 | 1500 | 100 | 0.400 | 500 |

Note: When ordering, please specify tolerance code. Tolerance : Y=±25%

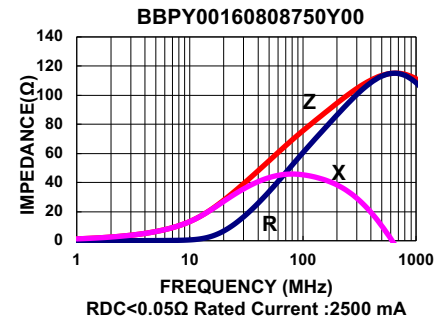
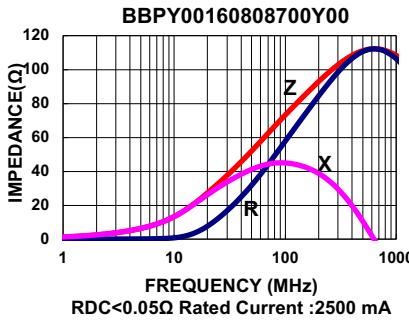
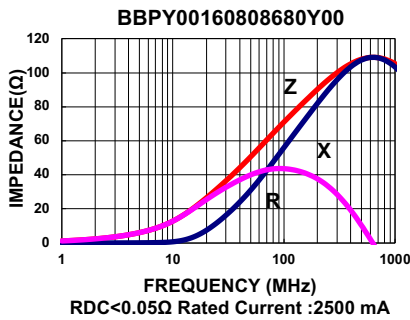
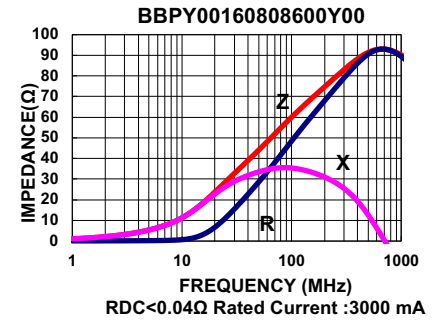
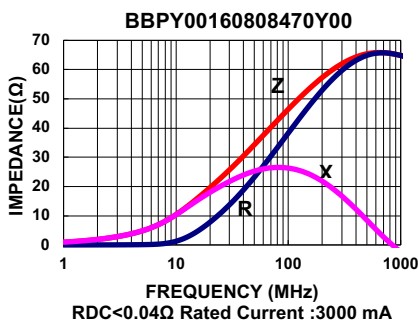
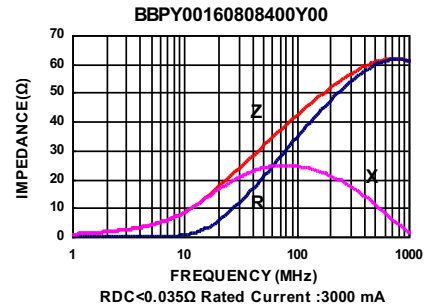
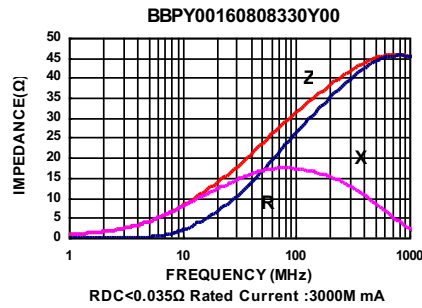
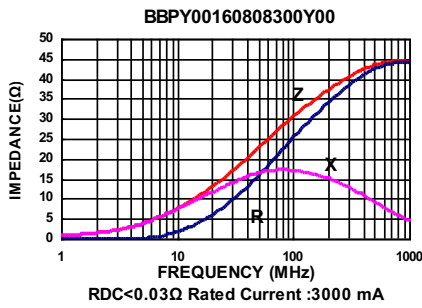
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Test Instruments : Agilent E4991A Impedance / Material Analyzer

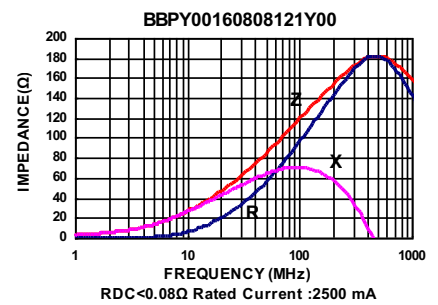
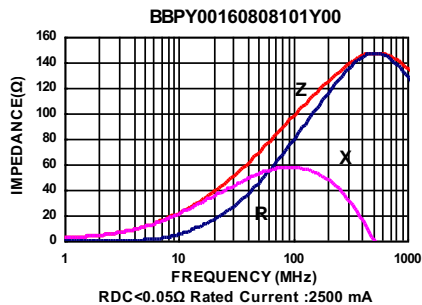
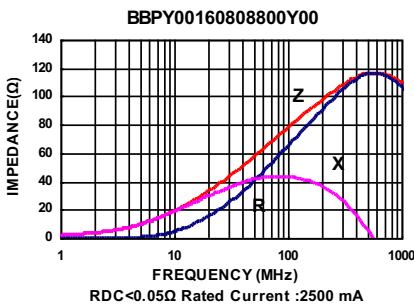


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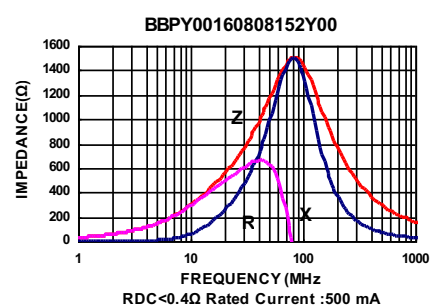
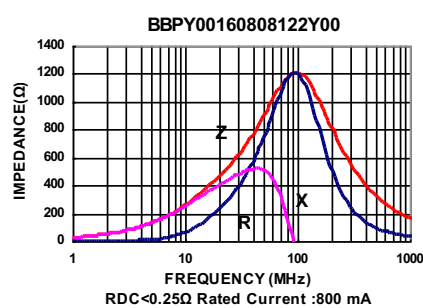
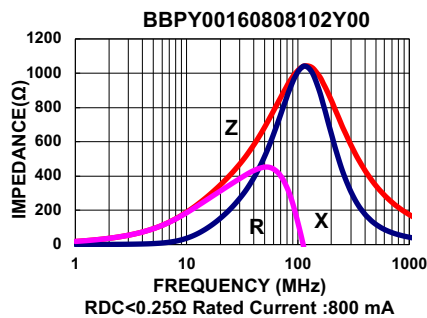
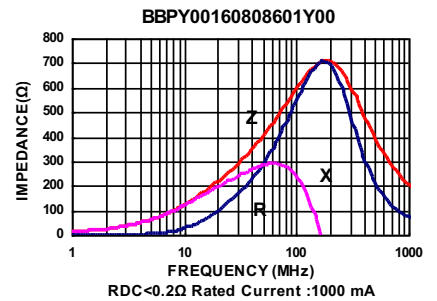
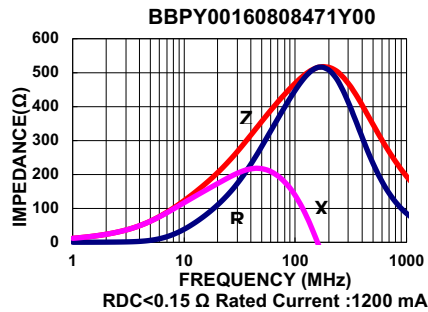
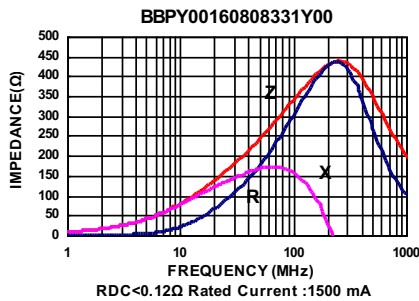
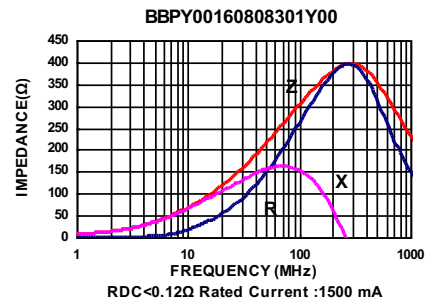
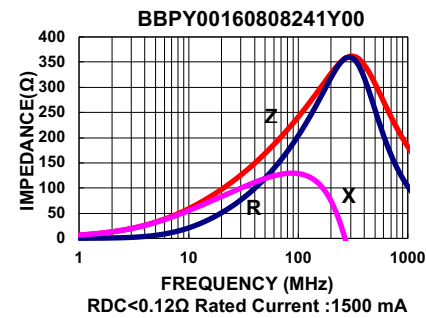
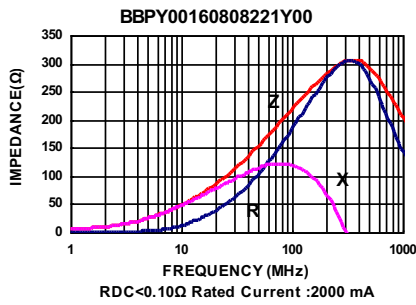
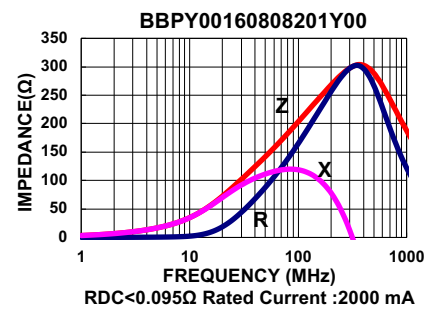
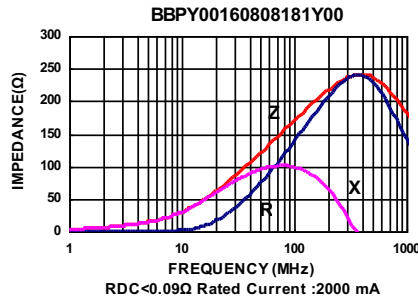
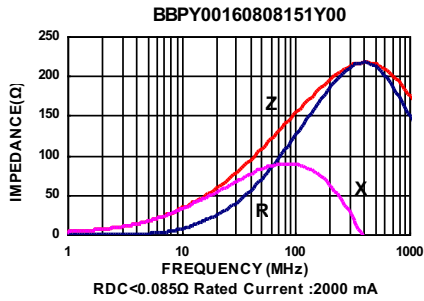


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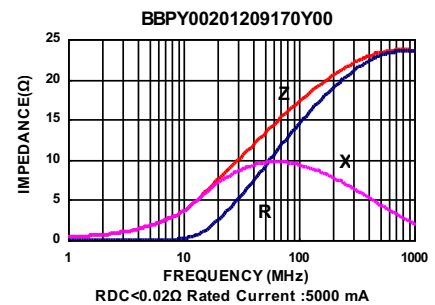
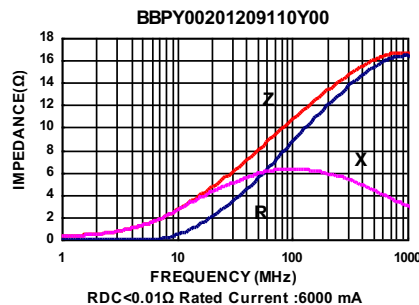
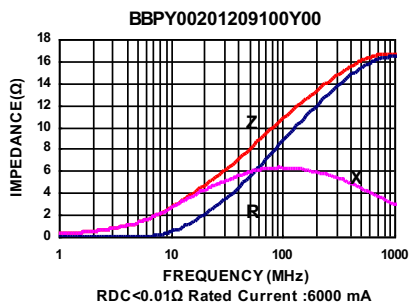
Electrical Characteristics

| Part Number | Impedance ($\Omega \pm 25\%$) | Test Frequency (MHz) | RDC (Ω) Max | Rated current (mA) Max |
|--------------------|------------------------------------|-------------------------|-------------------------|---------------------------|
| BBPY00201209100Y00 | 10 | 100 | 0.01 | 6000 |
| BBPY00201209110Y00 | 11 | 100 | 0.01 | 6000 |
| BBPY00201209170Y00 | 17 | 100 | 0.02 | 5000 |
| BBPY00201209300Y00 | 30 | 100 | 0.015 | 4000 |
| BBPY00201209500Y00 | 50 | 100 | 0.025 | 3000 |
| BBPY00201209600Y00 | 60 | 100 | 0.03 | 3000 |
| BBPY00201209700Y00 | 70 | 100 | 0.04 | 3000 |
| BBPY00201209800Y00 | 80 | 100 | 0.04 | 3000 |
| BBPY00201209101Y00 | 100 | 100 | 0.04 | 3000 |
| BBPY00201209121Y00 | 120 | 100 | 0.04 | 3000 |
| BBPY00201209221Y00 | 220 | 100 | 0.08 | 2000 |
| BBPY00201209301Y00 | 300 | 100 | 0.08 | 2000 |
| BBPY00201209331Y00 | 330 | 100 | 0.08 | 2000 |
| BBPY00201209471Y00 | 470 | 100 | 0.10 | 2000 |
| BBPY00201209601Y00 | 600 | 100 | 0.10 | 2000 |
| BBPY00201209102Y00 | 1000 | 100 | 0.12 | 1500 |
| BBPY00201209152Y00 | 1500 | 100 | 0.30 | 1000 |

Note: When ordering, please specify tolerance code. Tolerance : Y= $\pm 25\%$

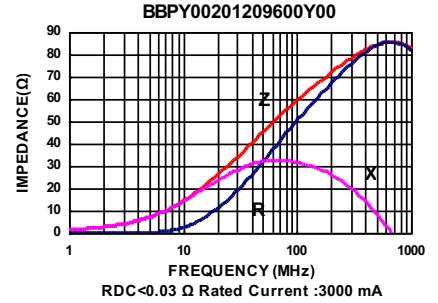
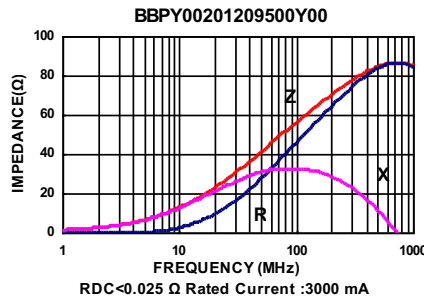
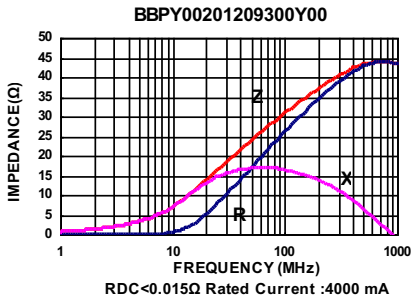
- Operating temperature range - 55°C ~ 125°C(Including self - temperature rise)
- Rate Current : Applied the current to coils, the temperature rise shall not be more than 30°C
- Measure Equipment :
Z : HP4291A
RDC : HP4338B or CHEN HWA 502

Test Instruments : Agilent E4991A Impedance / Material Analyzer

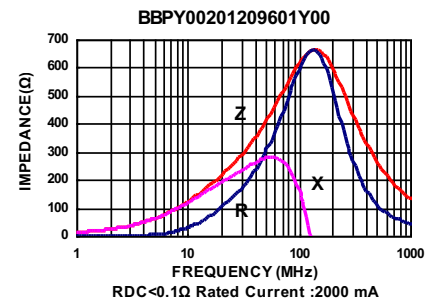
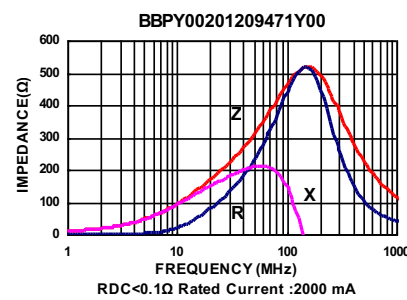
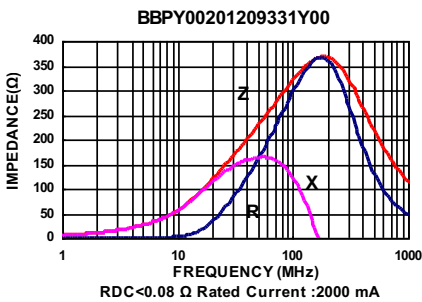
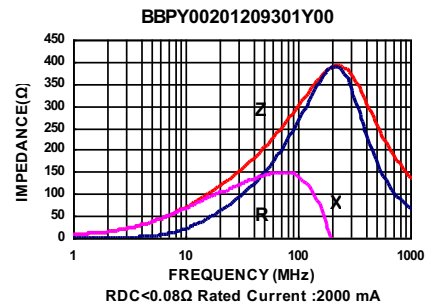
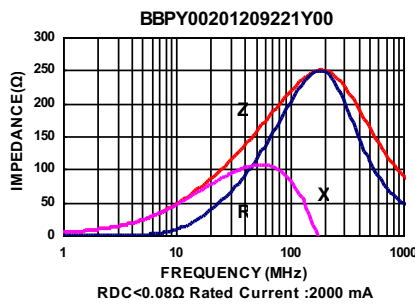
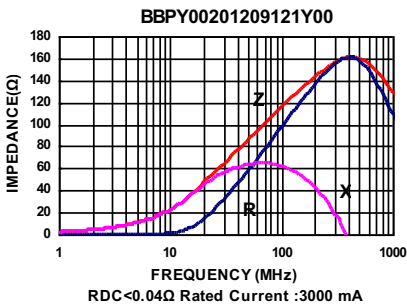
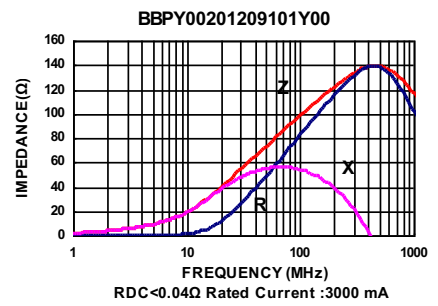
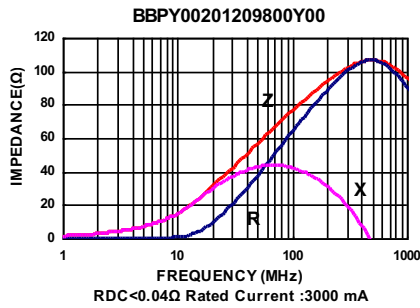
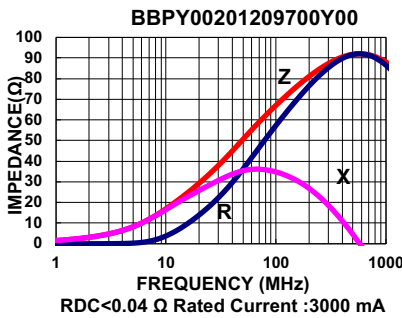


SMD Multi-layer Ferrite Chip Beads

BBPY Series

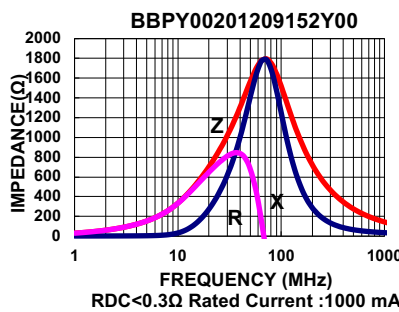
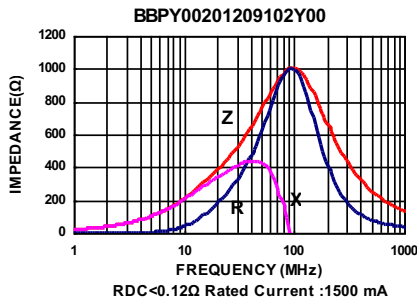


Test Instruments : Agilent E4991A Impedance / Material Analyzer



SMD Multi-layer Ferrite Chip Beads

BBPY Series



Electrical Characteristics

| Part Number | Impedance ($\Omega \pm 25\%$) | Test Frequency (MHz) | RDC (Ω) Max | Rated current (mA) Max |
|--------------------|------------------------------------|-------------------------|-------------------------|---------------------------|
| BBPY00321611100Y00 | 10 | 100 | 0.015 | 6000 |
| BBPY00321611110Y00 | 11 | 100 | 0.015 | 6000 |
| BBPY00321611300Y00 | 30 | 100 | 0.015 | 4000 |
| BBPY00321611320Y00 | 32 | 100 | 0.015 | 4000 |
| BBPY00321611330Y00 | 33 | 100 | 0.015 | 4000 |
| BBPY00321611400Y00 | 40 | 100 | 0.015 | 4000 |
| BBPY00321611500Y00 | 50 | 100 | 0.02 | 4000 |
| BBPY00321611600Y00 | 60 | 100 | 0.02 | 4000 |
| BBPY00321611700Y00 | 70 | 100 | 0.02 | 4000 |
| BBPY00321611800Y00 | 80 | 100 | 0.025 | 3000 |
| BBPY00321611101Y00 | 100 | 100 | 0.03 | 3000 |
| BBPY00321611121Y00 | 120 | 100 | 0.03 | 3000 |
| BBPY00321611151Y00 | 150 | 100 | 0.04 | 2000 |
| BBPY00321611201Y00 | 200 | 100 | 0.05 | 2000 |
| BBPY00321611221Y00 | 220 | 100 | 0.05 | 2000 |
| BBPY00321611301Y00 | 300 | 100 | 0.06 | 2000 |
| BBPY00321611331Y00 | 330 | 100 | 0.06 | 2000 |
| BBPY00321611391Y00 | 390 | 100 | 0.06 | 2000 |
| BBPY00321611401Y00 | 400 | 100 | 0.1 | 2000 |
| BBPY00321611471Y00 | 470 | 100 | 0.1 | 2000 |
| BBPY00321611501Y00 | 500 | 100 | 0.1 | 2000 |
| BBPY00321611601Y00 | 600 | 100 | 0.1 | 2000 |

SMD Multi-layer Ferrite Chip Beads

BBPY Series

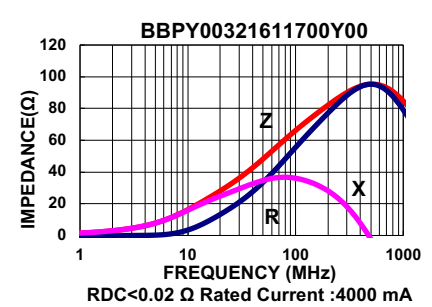
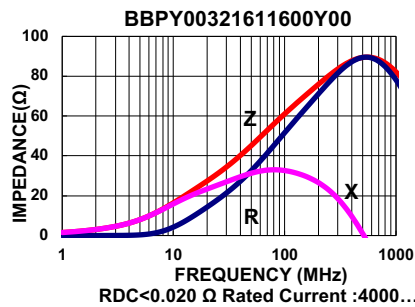
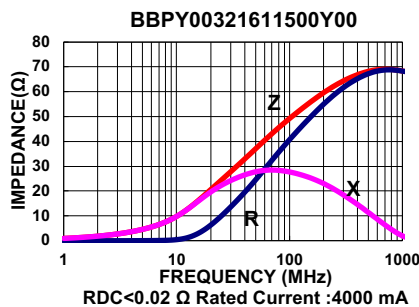
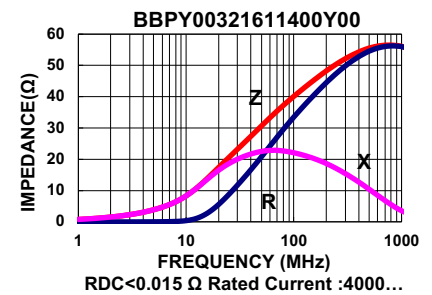
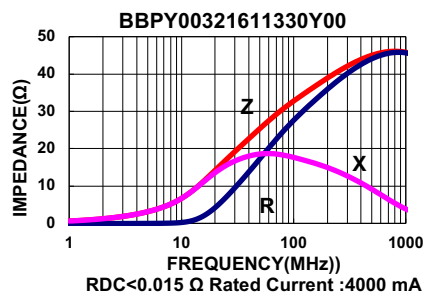
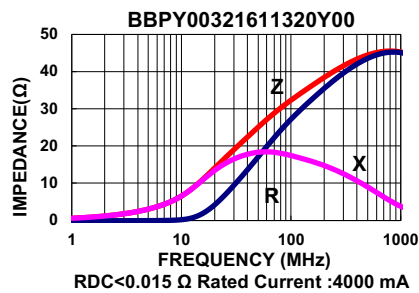
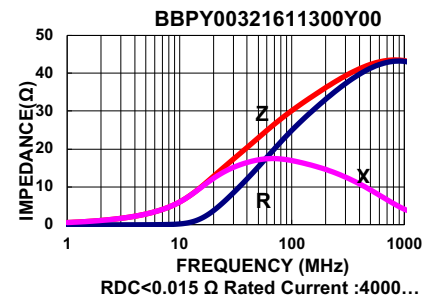
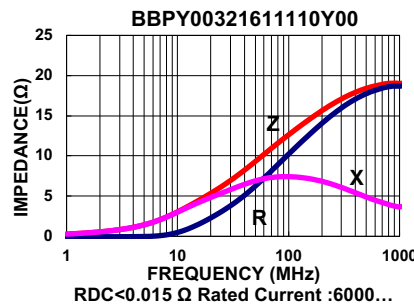
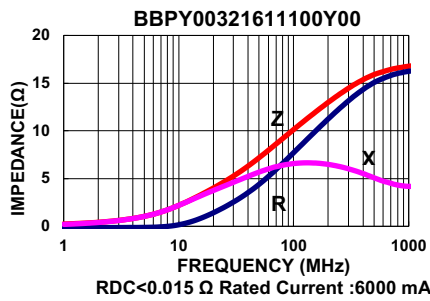


| | | | | |
|--------------------|------|----|------|------|
| BBPY00321611102Y00 | 1000 | 50 | 0.15 | 1200 |
| BBPY00321611122Y00 | 1200 | 50 | 0.18 | 1000 |
| BBPY00321611152Y00 | 1500 | 50 | 0.2 | 800 |

Note: When ordering, please specify tolerance code. Tolerance : Y=±25%

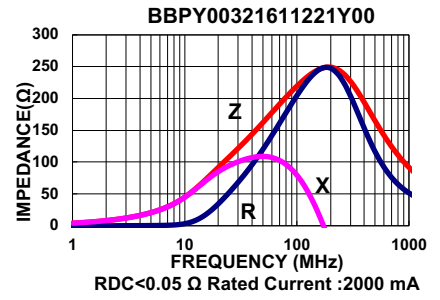
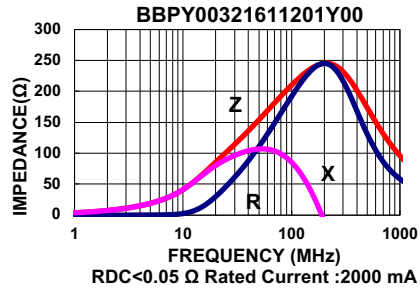
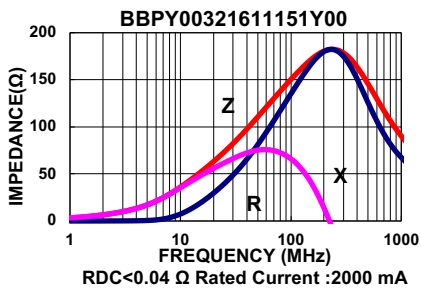
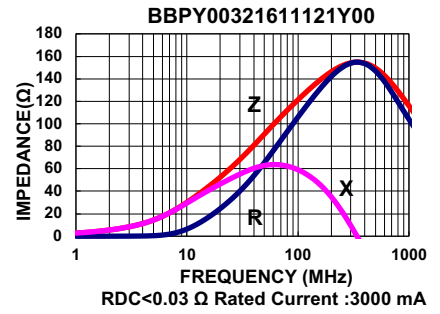
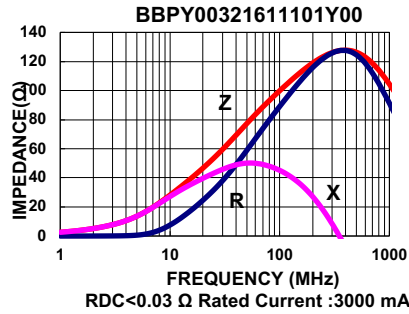
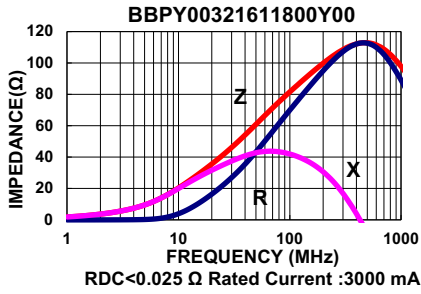
- Operating temperature range - 55°C ~ 125°C(Including self - temperature rise)
- Rate Current : Applied the current to coils, the temperature rise shall not be more than 30°C
- Measure Equipment :
Z : HP4291A
RDC : HP4338B or CHEN HWA 502

Test Instruments : Agilent E4991A Impedance / Material Analyzer

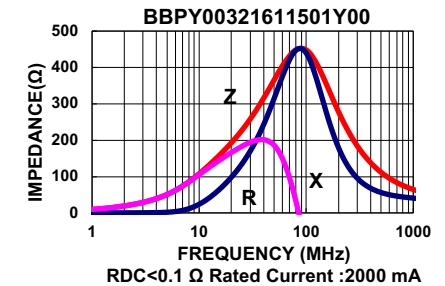
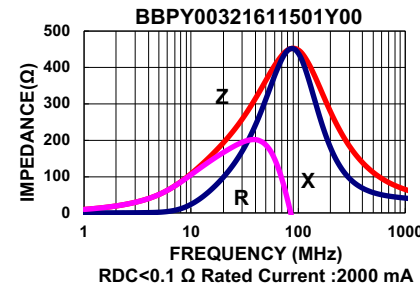
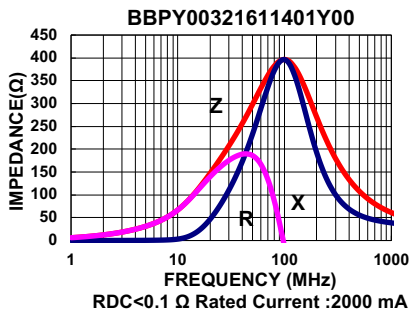
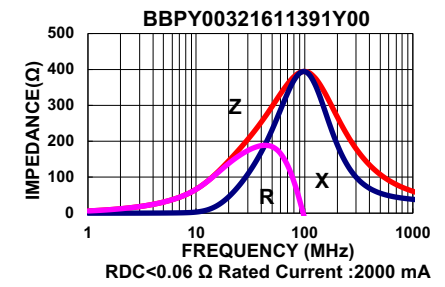
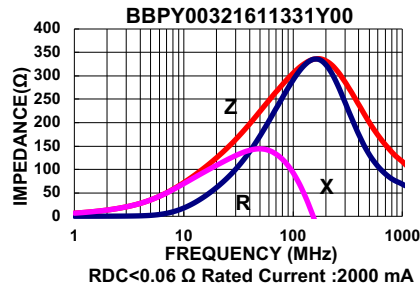
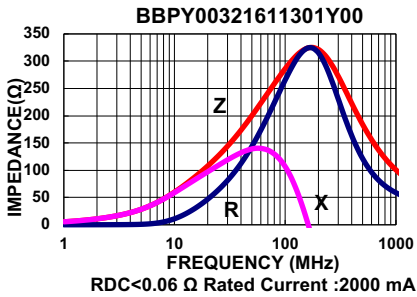


SMD Multi-layer Ferrite Chip Beads

BBPY Series

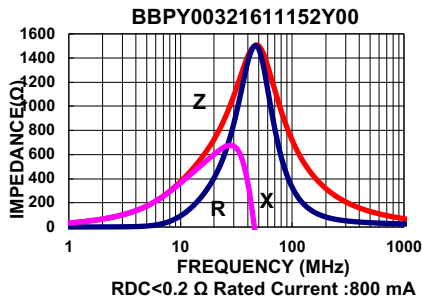
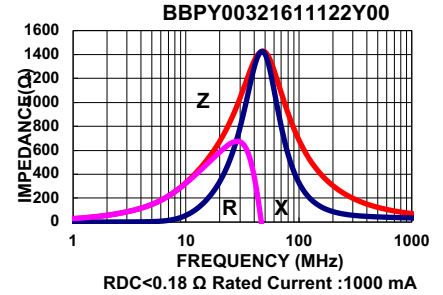
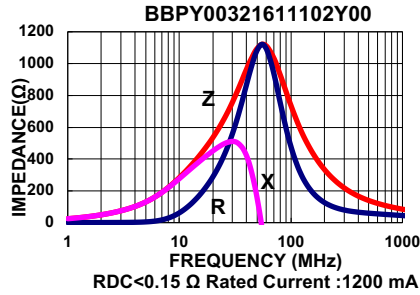
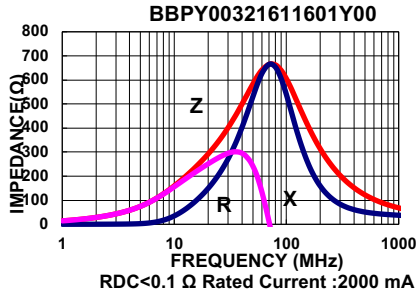


Test Instruments : Agilent E4991A Impedance / Material Analyzer



SMD Multi-layer Ferrite Chip Beads

BBPY Series



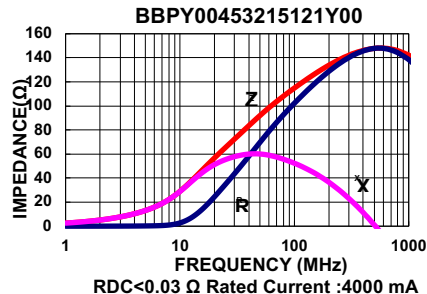
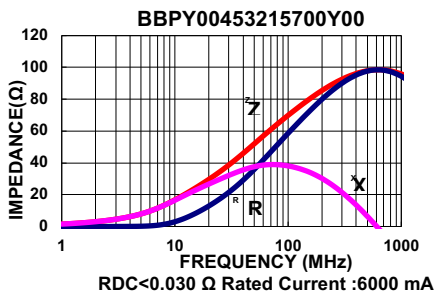
Electrical Characteristics

| Part Number | Impedance ($\Omega \pm 25\%$) | Test Frequency (MHz) | DC Resistance (Ω) Max | Rated current (mA) Max |
|--------------------|------------------------------------|-------------------------|-----------------------------------|---------------------------|
| BBPY00453215700Y00 | 70 | 100 | 0.030 | 6000 |
| BBPY00453215121Y00 | 120 | 100 | 0.030 | 4000 |

Note: When ordering, please specify tolerance code. Tolerance : Y= $\pm 25\%$

- Operating temperature range - 55°C ~ 125°C(Including self - temperature rise)
- Rate Current : Applied the current to coils, the temperature rise shall not be more than 30°C
- Measure Equipment :
Z : HP4291A
RDC : HP4338B or CHEN HWA 502

Test Instruments : Agilent E4991A Impedance / Material Analyzer

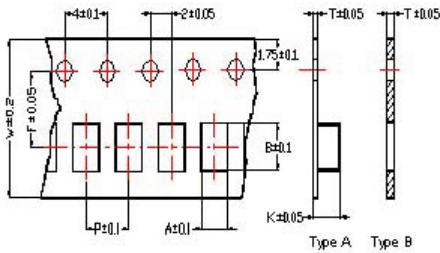


SMD Multi-layer Ferrite Chip Beads

BBPY Series

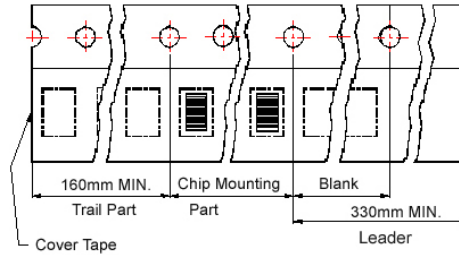
Packaging Specifications

Tape Dimensions

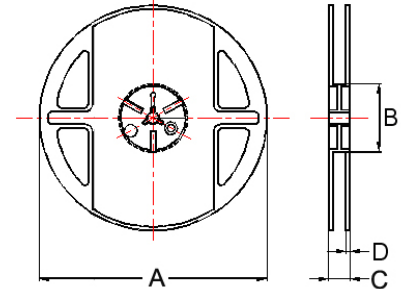


Tape Material

Carrier Tape: Polycarbonate (Tape A)
Carrier Tape: Paper (Tape B)
Cover Tape: Polystyrene



Reel Dimensions



- ① : BBSY/BBSJ/BBNQ/BBPY ③ : BBUP
- ② : BBSY/BBSJ/BBNQ/BBPY/BBUP/BBFY/BBFJ
- ④ : BBBK/BBSJ/BBGK/BBPY/BBNQ/BBUP/BBHV
- ⑤ : BBBK/BBGK/BBPY/BBUP
- ⑥ : BBSY/BBBK/BBPY/BBUP
- ⑦ : BBPY/BBUP

Dimensions in mm

| TYPE | Tape Dimensions | | | | | | | | Reel Dimensions | | | | Quantity |
|---------|-----------------|------|------|-----|-----|-----|------|------|-----------------|----|----|---|------------|
| | A | B | T | W | P | F | K | Tape | A | B | C | D | PCS / REEL |
| ①060303 | 0.37 | 0.67 | 0.42 | 8.0 | 2.0 | 3.5 | - | B | 178 | 60 | 10 | 2 | 15000 |
| ②100505 | 0.62 | 1.12 | 0.60 | 8.0 | 2.0 | 3.5 | - | B | 178 | 60 | 12 | 2 | 10000 |
| ③160805 | 1.05 | 1.85 | 0.60 | 8.0 | 2.0 | 3.5 | - | B | 178 | 60 | 12 | 2 | 10000 |
| ④160808 | 1.05 | 1.85 | 0.95 | 8.0 | 4.0 | 3.5 | - | B | 178 | 60 | 12 | 2 | 4000 |
| ⑤201209 | 1.50 | 2.30 | 0.97 | 8.0 | 4.0 | 3.5 | - | B | 178 | 60 | 12 | 2 | 4000 |
| ⑥321611 | 1.88 | 3.50 | 0.22 | 8.0 | 4.0 | 3.5 | 1.27 | A | 178 | 60 | 12 | 2 | 3000 |
| ⑦453215 | 3.66 | 4.95 | 0.24 | 12 | 8.0 | 5.5 | 1.85 | A | 178 | 60 | 14 | 2 | 1000 |

For More Information:

Americas - prodinfo_power_americas@yageo.com | Europe - prodinfo_power_emea@yageo.com | Asia - prodinfo_power_asia@yageo.com

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