



BSPQ Series supports miniaturized devices. Its low inductance, high precision and higher Q enables easy impedance matching at both RF and IF circuits and compact high frequency circuit designing.

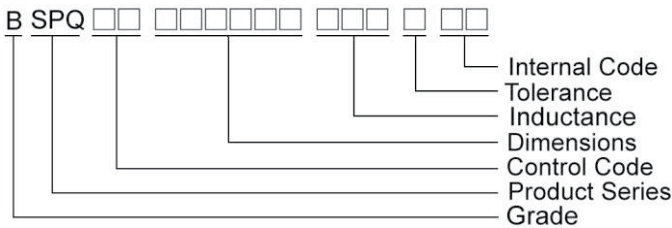
Features

- Film Type
- Excellent high frequency application
- Higher Q factor
- Miniaturization
- Tight tolerance

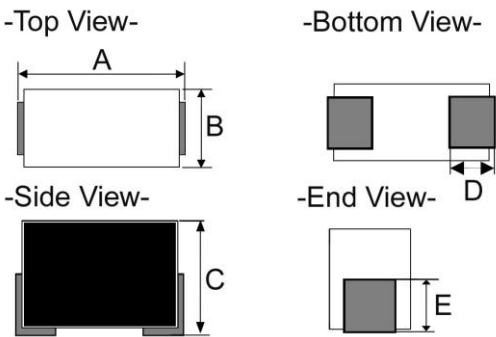
Applications

- RF matching circuit requiring Q value
- Bluetooth, WLAN, UWB, digital TV tuners and high-frequency circuit and module

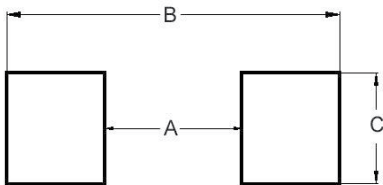
Product Identification



Shape and Dimensions



Recommended Pattern



Dimensions in mm

| TYPE         | A        | B        | C        | D         | E        |
|--------------|----------|----------|----------|-----------|----------|
| BSPQ00060304 | 0.6±0.03 | 0.3±0.03 | 0.4±0.03 | 0.15±0.03 | 0.2±0.03 |

Dimensions in mm

| TYPE         | A   | B           | C   |
|--------------|-----|-------------|-----|
| BSPQ00060304 | 0.3 | 0.75 ~ 1.05 | 0.3 |

## Electrical Characteristics

| Part Number        | Inductance<br>(nH) | Tolerance<br>(±%) | Q<br>Min | Test<br>Frequency<br>(MHz) | SRF<br>(MHz) Min | RDC<br>(Ω) Max | Rated Current<br>(mA) Max |
|--------------------|--------------------|-------------------|----------|----------------------------|------------------|----------------|---------------------------|
| BSPQ000603040N6□00 | 0.6                | ±0.1nH/±0.2nH     | 20       | 500                        | 20000            | 0.04           | 1100                      |
| BSPQ000603040N7□00 | 0.7                | ±0.1nH/±0.2nH     | 20       | 500                        | 20000            | 0.04           | 1100                      |
| BSPQ000603040N8□00 | 0.8                | ±0.1nH/±0.2nH     | 20       | 500                        | 18000            | 0.04           | 1100                      |
| BSPQ000603040N9□00 | 0.9                | ±0.1nH/±0.2nH     | 20       | 500                        | 18000            | 0.04           | 1100                      |
| BSPQ000603041N0□00 | 1.0                | ±0.1nH/±0.2nH     | 20       | 500                        | 16000            | 0.04           | 1100                      |
| BSPQ000603041N1□00 | 1.1                | ±0.1nH/±0.2nH     | 20       | 500                        | 14000            | 0.04           | 1100                      |
| BSPQ000603041N2□00 | 1.2                | ±0.1nH/±0.2nH     | 20       | 500                        | 13000            | 0.04           | 1100                      |
| BSPQ000603041N3v00 | 1.3                | ±0.1nH/±0.2nH     | 20       | 500                        | 13000            | 0.04           | 1100                      |
| BSPQ000603041N4□00 | 1.4                | ±0.1nH/±0.2nH     | 20       | 500                        | 12000            | 0.04           | 1100                      |
| BSPQ000603041N5□00 | 1.5                | ±0.1nH/±0.2nH     | 20       | 500                        | 12000            | 0.05           | 1000                      |
| BSPQ000603041N6□00 | 1.6                | ±0.1nH/±0.2nH     | 20       | 500                        | 10000            | 0.05           | 1000                      |
| BSPQ000603041N7□00 | 1.7                | ±0.1nH/±0.2nH     | 20       | 500                        | 10000            | 0.07           | 800                       |
| BSPQ000603041N8□00 | 1.8                | ±0.1nH/±0.2nH     | 20       | 500                        | 10000            | 0.08           | 800                       |
| BSPQ000603041N9□00 | 1.9                | ±0.1nH/±0.2nH     | 20       | 500                        | 10000            | 0.12           | 600                       |
| BSPQ000603042N0□00 | 2.0                | ±0.1nH/±0.2nH     | 20       | 500                        | 9000             | 0.12           | 600                       |
| BSPQ000603042N1□00 | 2.1                | ±0.1nH/±0.2nH     | 20       | 500                        | 9000             | 0.12           | 600                       |
| BSPQ000603042N2□00 | 2.2                | ±0.1nH/±0.2nH     | 20       | 500                        | 9000             | 0.12           | 600                       |
| BSPQ000603042N3□00 | 2.3                | ±0.1nH/±0.2nH     | 20       | 500                        | 9000             | 0.12           | 600                       |
| BSPQ000603042N4□00 | 2.4                | ±0.1nH/±0.2nH     | 20       | 500                        | 9000             | 0.12           | 600                       |
| BSPQ000603042N5□00 | 2.5                | ±0.1nH/±0.2nH     | 20       | 500                        | 9000             | 0.12           | 600                       |
| BSPQ000603042N6□00 | 2.6                | ±0.1nH/±0.2nH     | 20       | 500                        | 9000             | 0.12           | 600                       |
| BSPQ000603042N7□00 | 2.7                | ±0.1nH/±0.2nH     | 20       | 500                        | 9000             | 0.12           | 600                       |
| BSPQ000603042N8□00 | 2.8                | ±0.1nH/±0.2nH     | 20       | 500                        | 8000             | 0.12           | 600                       |
| BSPQ000603042N9□00 | 2.9                | ±0.1nH/±0.2nH     | 20       | 500                        | 8000             | 0.12           | 600                       |
| BSPQ000603043N0□00 | 3.0                | ±0.1nH/±0.2nH     | 20       | 500                        | 8000             | 0.12           | 600                       |
| BSPQ000603043N1□00 | 3.1                | ±0.1nH/±0.2nH     | 20       | 500                        | 7500             | 0.17           | 500                       |
| BSPQ000603043N2□00 | 3.2                | ±0.1nH/±0.2nH     | 20       | 500                        | 7000             | 0.17           | 500                       |
| BSPQ000603043N3□00 | 3.3                | ±0.1nH/±0.2nH     | 20       | 500                        | 7000             | 0.17           | 500                       |
| BSPQ000603043N4□00 | 3.4                | ±0.1nH/±0.2nH     | 20       | 500                        | 7000             | 0.17           | 500                       |
| BSPQ000603043N5□00 | 3.5                | ±0.1nH/±0.2nH     | 20       | 500                        | 7000             | 0.17           | 500                       |
| BSPQ000603043N6□00 | 3.6                | ±0.1nH/±0.2nH     | 20       | 500                        | 7000             | 0.17           | 500                       |
| BSPQ000603043N7□00 | 3.7                | ±0.1nH/±0.2nH     | 20       | 500                        | 7000             | 0.17           | 500                       |

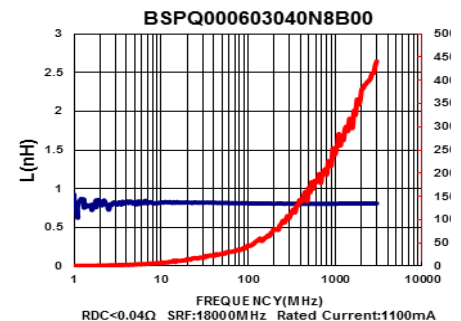
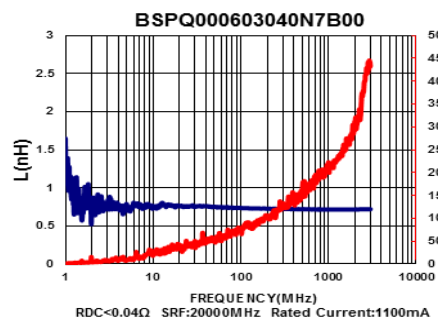
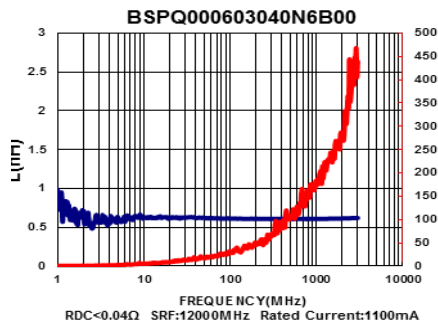
## Electrical Characteristics

| Part Number        | Inductance (nH) | Tolerance (±%) | Q Min | Test Frequency (MHz) | SRF (MHz) Min | RDC (Ω) Max | Rated Current (mA) Max |
|--------------------|-----------------|----------------|-------|----------------------|---------------|-------------|------------------------|
| BSPQ000603043N8□00 | 3.8             | ±0.1nH/±0.2nH  | 20    | 500                  | 7000          | 0.17        | 500                    |
| BSPQ000603043N9□00 | 3.9             | ±0.1nH/±0.2nH  | 20    | 500                  | 7000          | 0.17        | 500                    |
| BSPQ000603044N0□00 | 4.0             | ±0.1nH/±0.2nH  | 20    | 500                  | 7000          | 0.17        | 500                    |
| BSPQ000603044N1□00 | 4.1             | ±0.1nH/±0.2nH  | 20    | 500                  | 7000          | 0.17        | 500                    |
| BSPQ000603044N2□00 | 4.2             | ±0.1nH/±0.2nH  | 20    | 500                  | 7000          | 0.17        | 500                    |
| BSPQ000603044N3□00 | 4.3             | 3/5            | 20    | 500                  | 7000          | 0.17        | 500                    |
| BSPQ000603044N7□00 | 4.7             | 3/5            | 20    | 500                  | 7000          | 0.25        | 400                    |
| BSPQ000603045N1□00 | 5.1             | 3/5            | 20    | 500                  | 5500          | 0.25        | 400                    |
| BSPQ000603045N6□00 | 5.6             | 3/5            | 20    | 500                  | 5500          | 0.25        | 400                    |
| BSPQ000603046N2□00 | 6.2             | 3/5            | 20    | 500                  | 5500          | 0.25        | 400                    |
| BSPQ000603046N8□00 | 6.8             | 3/5            | 20    | 500                  | 5500          | 0.30        | 400                    |
| BSPQ000603047N5□00 | 7.5             | 3/5            | 20    | 500                  | 4500          | 0.30        | 400                    |
| BSPQ000603048N2□00 | 8.2             | 3/5            | 20    | 500                  | 4500          | 0.40        | 300                    |
| BSPQ000603049N1□00 | 9.1             | 3/5            | 20    | 500                  | 4500          | 0.40        | 300                    |
| BSPQ0006030410N□00 | 10              | 3/5            | 20    | 500                  | 4500          | 0.40        | 300                    |
| BSPQ0006030412N□00 | 12              | 3/5            | 20    | 500                  | 4000          | 0.50        | 300                    |
| BSPQ0006030415N□00 | 15              | 3/5            | 20    | 500                  | 3500          | 0.70        | 300                    |
| BSPQ0006030418N□00 | 18              | 3/5            | 20    | 500                  | 3500          | 0.80        | 250                    |
| BSPQ0006030422N□00 | 22              | 3/5            | 20    | 500                  | 3000          | 0.82        | 250                    |

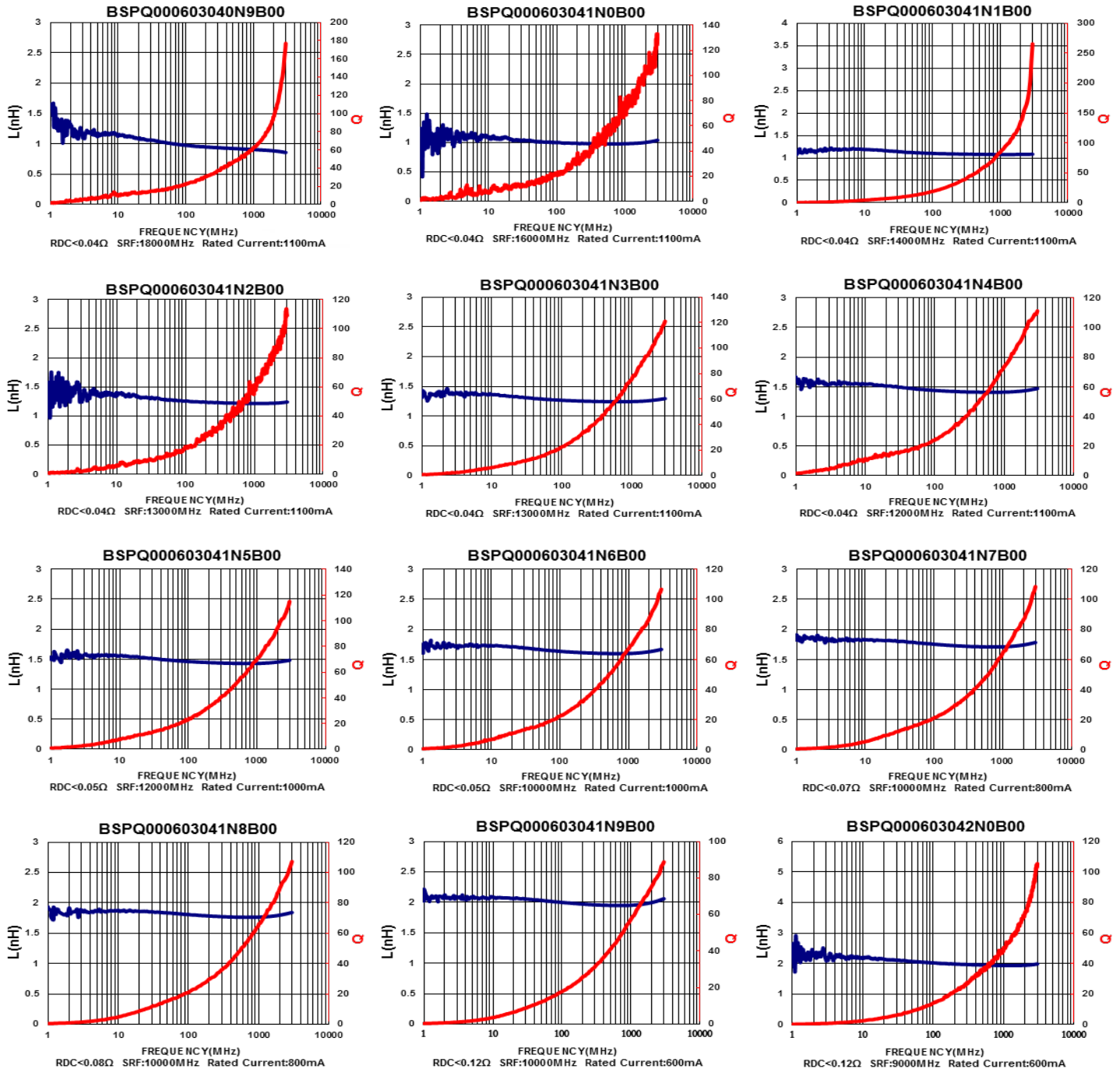
**Note:** When ordering, please specify tolerance code. Tolerance : B=±0.1nH , C=±0.2nH , H=±3% , J=±5%

- Operating temperature range - 55°C ~ 125°C(Including self - temperature rise)
- Rated Current : Applied the current to coils, the temperature rise shall not be more than 25°C
- Residual impedance of short chip : 0.48nH
- Measure Equipment :
  - L & Q : Agilent E4991A+Agilent 16197A (or equivalent)
  - SRF : Agilent E4991A or HP19196C
  - RDC : HP4338B or CHEN HWA 502

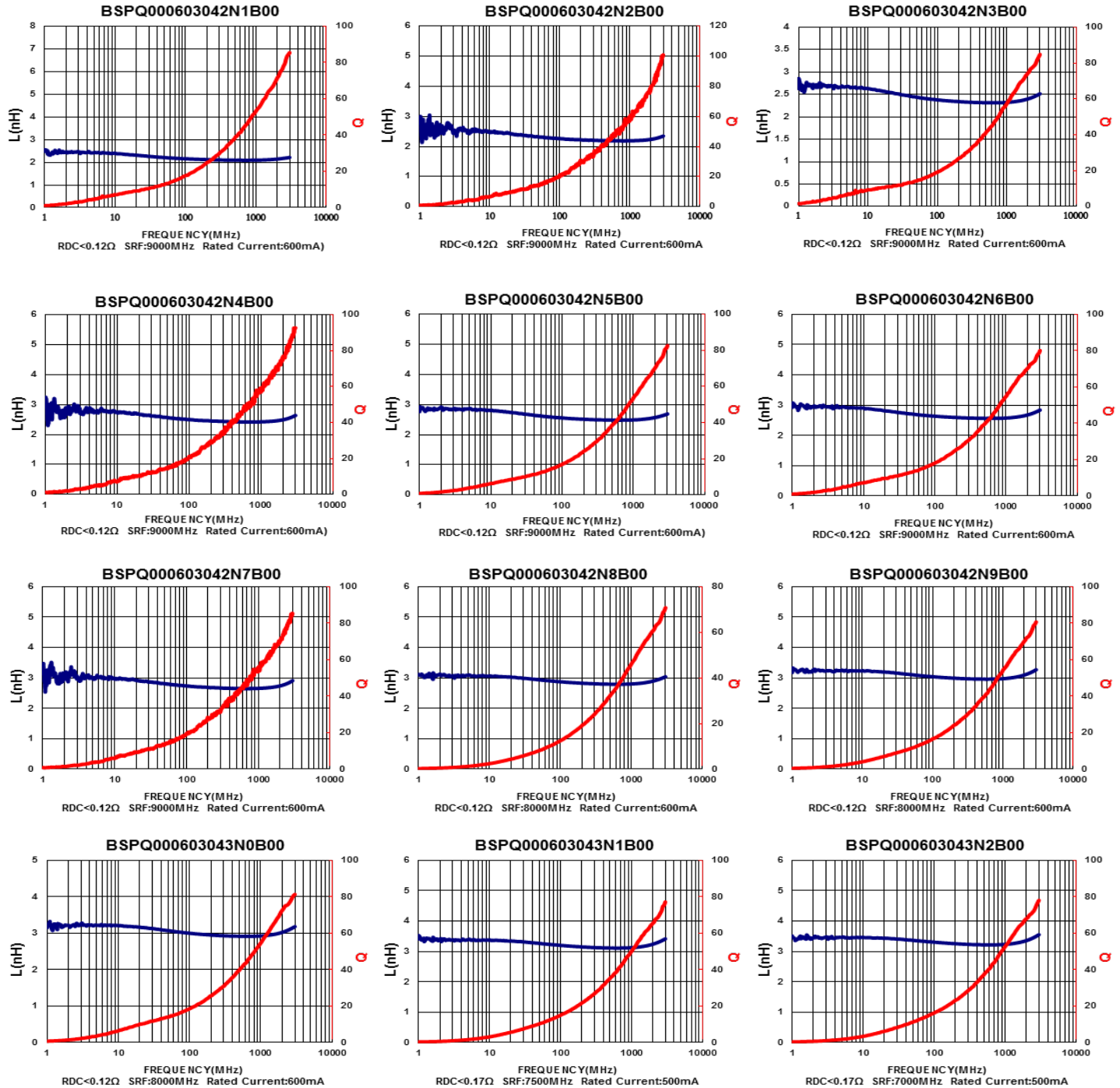
## Test Instruments : Agilent E4991A Material/Impedance Analyzer



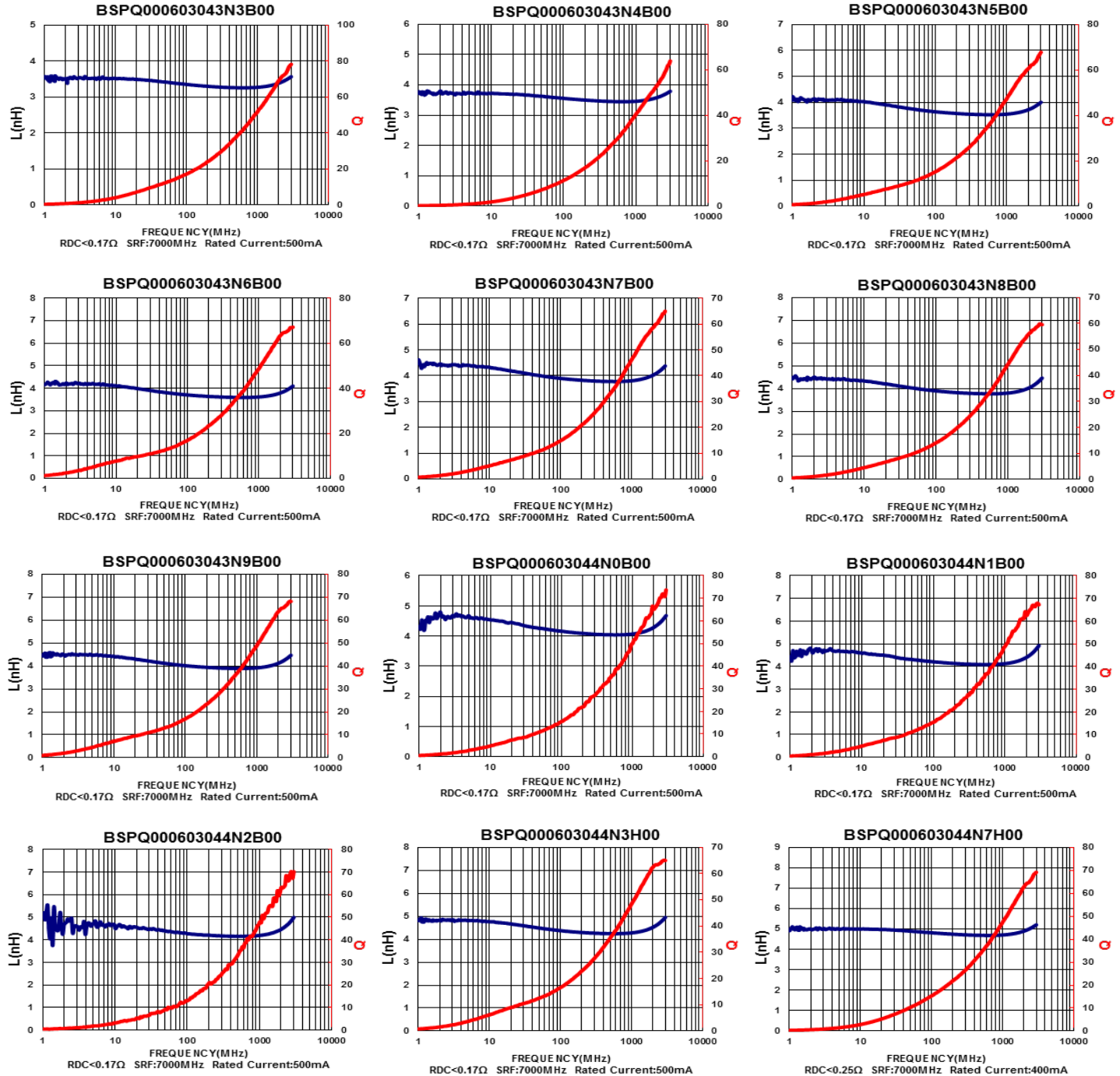
Test Instruments : Agilent E4991A Material/Impedance Analyzer



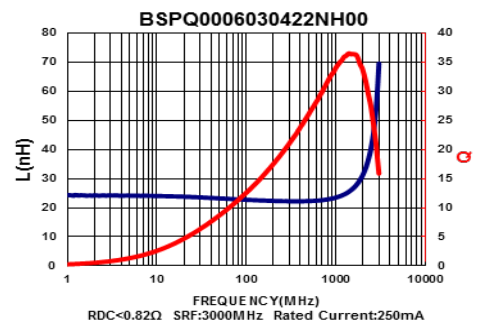
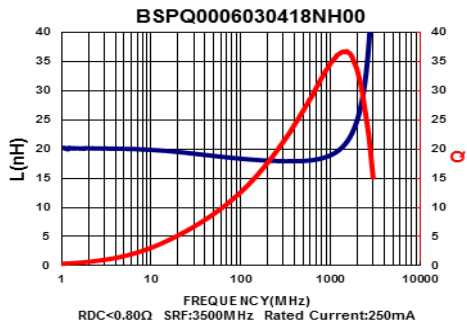
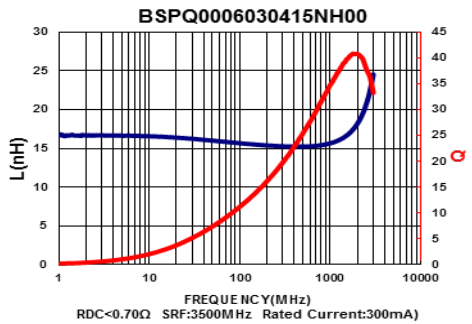
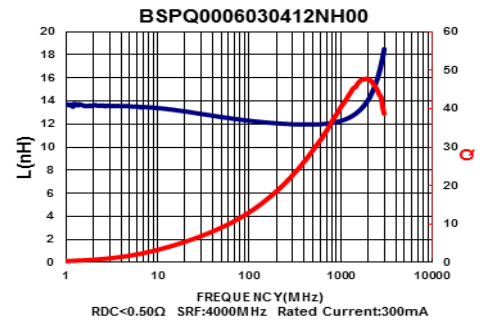
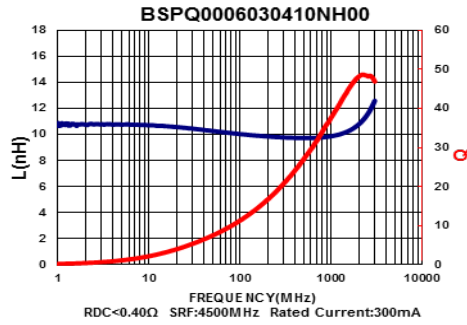
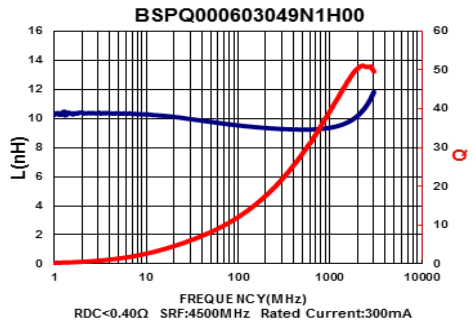
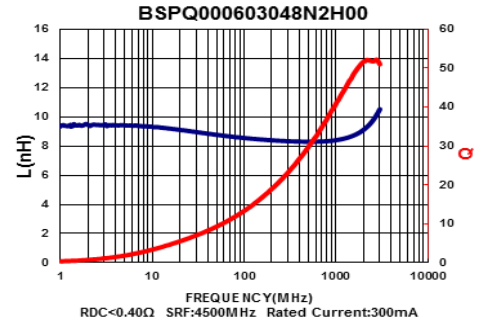
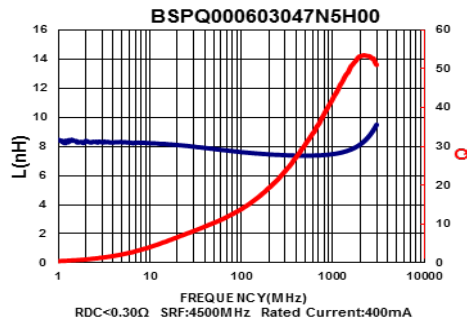
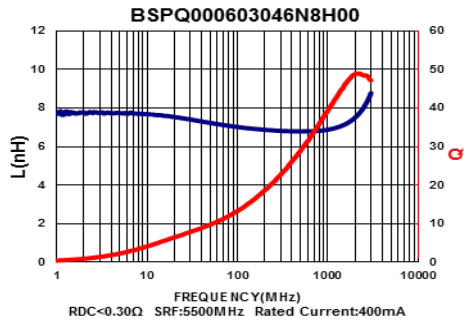
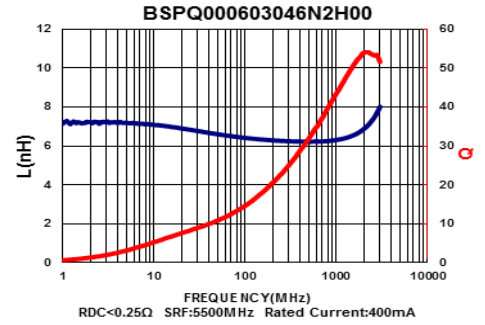
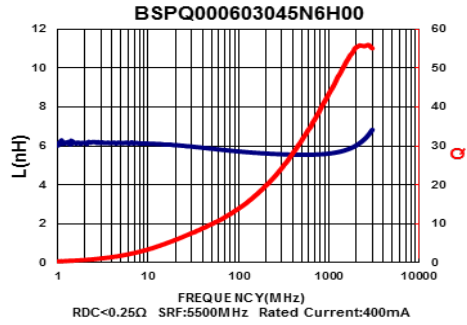
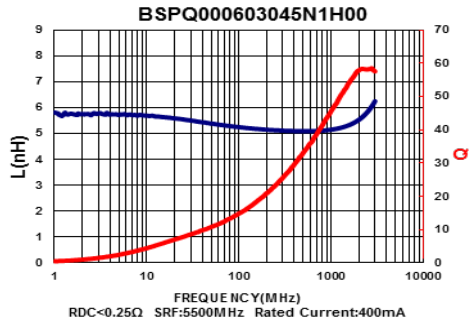
Test Instruments : Agilent E4991A Material/Impedance Analyzer



Test Instruments : Agilent E4991A Material/Impedance Analyzer



Test Instruments : Agilent E4991A Material/Impedance Analyzer

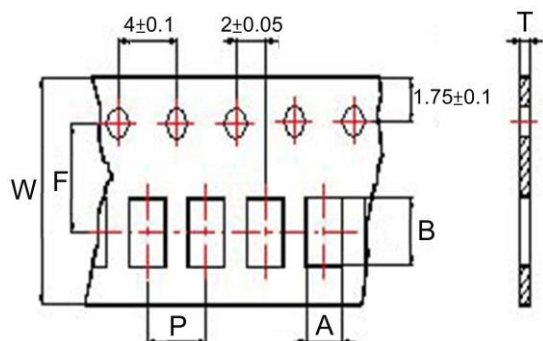


# SMD Ceramic High Q RF Chip Inductors

BSPQ Series

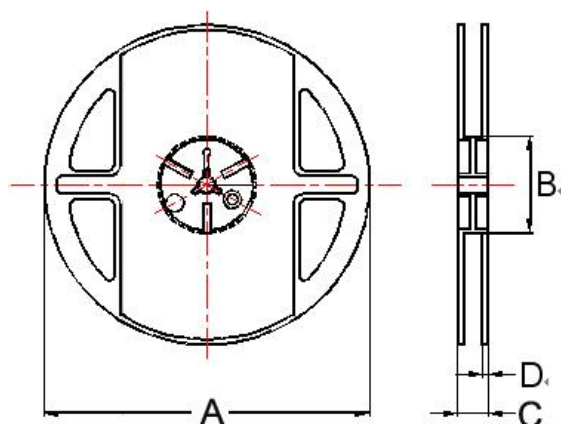
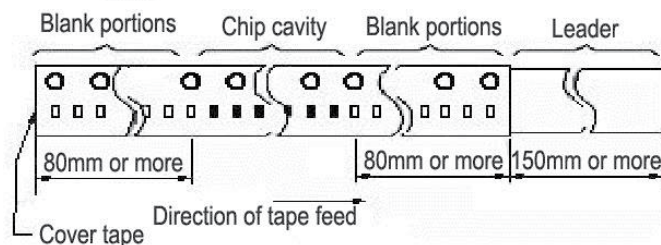
## Packaging Specifications

### Tape Dimensions



### Tape Material

Carrier tape : Paper  
Cover tape : Polyethylene



### Dimensions in mm

| TYPE         | Tape Dimensions |      |      |   |   |     | Reel Dimensions |    |    |     | Quantity<br>PCS / Reel |
|--------------|-----------------|------|------|---|---|-----|-----------------|----|----|-----|------------------------|
|              | A               | B    | T    | W | P | F   | A               | B  | C  | D   |                        |
| BSPQ00060304 | 0.37            | 0.68 | 0.45 | 8 | 2 | 3.5 | 180             | 60 | 13 | 1.5 | 15000                  |

## For More Information:

Americas - [prodinfo\\_power\\_americas@yageo.com](mailto:prodinfo_power_americas@yageo.com) | Europe - [prodinfo\\_power\\_emea@yageo.com](mailto:prodinfo_power_emea@yageo.com) | Asia - [prodinfo\\_power\\_asia@yageo.com](mailto:prodinfo_power_asia@yageo.com)

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|-------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|
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| <a href="#"><u>BSPQ0006030410NH00</u></a> | <a href="#"><u>BSPQ0006030412NH00</u></a> | <a href="#"><u>BSPQ0006030415NH00</u></a> | <a href="#"><u>BSPQ0006030418NH00</u></a> |
| <a href="#"><u>BSPQ000603041N0B00</u></a> | <a href="#"><u>BSPQ000603041N1B00</u></a> | <a href="#"><u>BSPQ000603041N2B00</u></a> | <a href="#"><u>BSPQ000603041N3B00</u></a> |
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| <a href="#"><u>BSPQ000402035N6J00</u></a> | <a href="#"><u>BSPQ000402036N2H00</u></a> | <a href="#"><u>BSPQ000402036N2J00</u></a> | <a href="#"><u>BSPQ000402034N2B00</u></a> |
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| <a href="#"><u>BSPQ000402033N8C00</u></a> | <a href="#"><u>BSPQ000402033N3B00</u></a> | <a href="#"><u>BSPQ000402033N3C00</u></a> | <a href="#"><u>BSPQ000402033N4B00</u></a> |
| <a href="#"><u>BSPQ000402033N4C00</u></a> | <a href="#"><u>BSPQ000402033N5B00</u></a> | <a href="#"><u>BSPQ000402033N5C00</u></a> | <a href="#"><u>BSPQ000402033N0B00</u></a> |
| <a href="#"><u>BSPQ000402033N0C00</u></a> | <a href="#"><u>BSPQ000402033N1B00</u></a> | <a href="#"><u>BSPQ000402033N1C00</u></a> | <a href="#"><u>BSPQ000402033N2B00</u></a> |