

Description: Film Type High Q RF chip inductors

PART NUMBER: BSPQ00060304 Series

DESCRIPTION

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

BSPQ Series



Features

- Size : 0.6 x 0.3 x 0.4 mm
- Excellent high frequency application
- Higher Q factor
- Miniaturization
- Tight tolerance

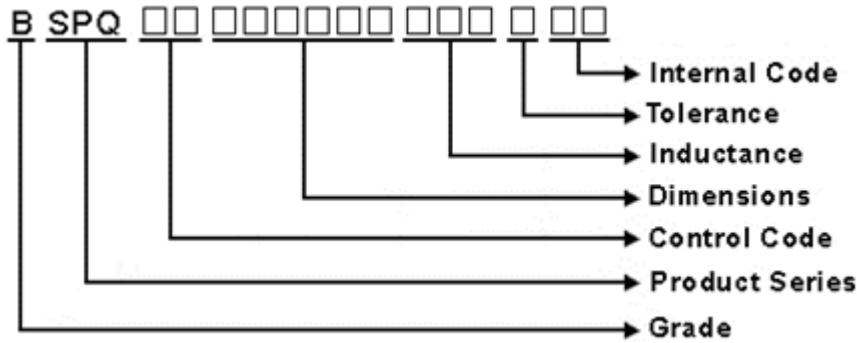
Applications

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

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Part Numbering



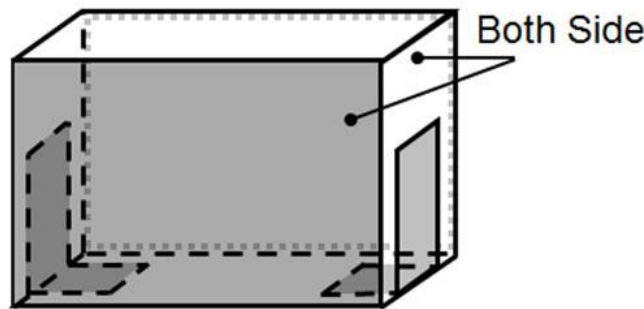
Rating

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)

Marking



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

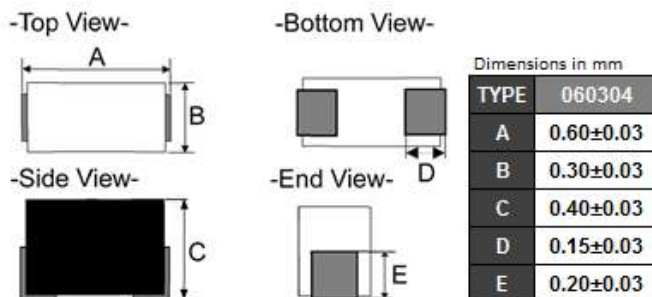
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Description: Film Type High Q RF chip inductors
PART NUMBER: BSPQ00060304 Series

Configuration and Dimensions



Electrical Characteristics

Part No.	Inductance (nH)	L,Q Test Freq.	Q Min.	SRF (MHz)Min.	RDC (Ω)Max.	Rated Current (mA)Max.	Tolerance
BSPQ000603040N6B00	0.6	500 MHz,500 mV	20	20000	0.04	1100	B=±0.1nH
BSPQ000603040N6C00	0.6	500 MHz,500 mV	20	20000	0.04	1100	C=±0.2nH
BSPQ000603040N7B00	0.7	500 MHz,500 mV	20	20000	0.04	1100	B=±0.1nH
BSPQ000603040N7C00	0.7	500 MHz,500 mV	20	20000	0.04	1100	C=±0.2nH
BSPQ000603040N8B00	0.8	500 MHz,500 mV	20	18000	0.04	1100	B=±0.1nH
BSPQ000603040N8C00	0.8	500 MHz,500 mV	20	18000	0.04	1100	C=±0.2nH
BSPQ000603040N9B00	0.9	500 MHz,500 mV	20	18000	0.04	1100	B=±0.1nH
BSPQ000603040N9C00	0.9	500 MHz,500 mV	20	18000	0.04	1100	C=±0.2nH
BSPQ000603041N0B00	1	500 MHz,500 mV	20	16000	0.04	1100	B=±0.1nH
BSPQ000603041N0C00	1	500 MHz,500 mV	20	16000	0.04	1100	C=±0.2nH
BSPQ000603041N1B00	1.1	500 MHz,500 mV	20	14000	0.04	1100	B=±0.1nH
BSPQ000603041N1C00	1.1	500 MHz,500 mV	20	14000	0.04	1100	C=±0.2nH
BSPQ000603041N2B00	1.2	500 MHz,500 mV	20	13000	0.04	1100	B=±0.1nH
BSPQ000603041N2C00	1.2	500 MHz,500 mV	20	13000	0.04	1100	C=±0.2nH
BSPQ000603041N3B00	1.3	500 MHz,500 mV	20	13000	0.04	1100	B=±0.1nH
BSPQ000603041N3C00	1.3	500 MHz,500 mV	20	13000	0.04	1100	C=±0.2nH
BSPQ000603041N4B00	1.4	500 MHz,500 mV	20	12000	0.04	1100	B=±0.1nH
BSPQ000603041N4C00	1.4	500 MHz,500 mV	20	12000	0.04	1100	C=±0.2nH
BSPQ000603041N5B00	1.5	500 MHz,500 mV	20	12000	0.05	1000	B=±0.1nH
BSPQ000603041N5C00	1.5	500 MHz,500 mV	20	12000	0.05	1000	C=±0.2nH

NOTE: tolerance B=±0.1nH / C=±0.2nH / H=±3% / J=±5%

- 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 25°C
- 3.Residual impedance of short chip : 0.48nH

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BSPQ000603041N6B00	1.6	500 MHz,500 mV	20	10000	0.05	1000	B=±0.1nH
BSPQ000603041N6C00	1.6	500 MHz,500 mV	20	10000	0.05	1000	C=±0.2nH
BSPQ000603041N7B00	1.7	500 MHz,500 mV	20	10000	0.07	800	B=±0.1nH
BSPQ000603041N7C00	1.7	500 MHz,500 mV	20	10000	0.07	800	C=±0.2nH
BSPQ000603041N8B00	1.8	500 MHz,500 mV	20	10000	0.08	800	B=±0.1nH
BSPQ000603041N8C00	1.8	500 MHz,500 mV	20	10000	0.08	800	C=±0.2nH
BSPQ000603041N9B00	1.9	500 MHz,500 mV	20	10000	0.12	600	B=±0.1nH
BSPQ000603041N9C00	1.9	500 MHz,500 mV	20	10000	0.12	600	C=±0.2nH
BSPQ000603042N0B00	2	500 MHz,500 mV	20	9000	0.12	600	B=±0.1nH
BSPQ000603042N0C00	2	500 MHz,500 mV	20	9000	0.12	600	C=±0.2nH
BSPQ000603042N1B00	2.1	500 MHz,500 mV	20	9000	0.12	600	B=±0.1nH
BSPQ000603042N1C00	2.1	500 MHz,500 mV	20	9000	0.12	600	C=±0.2nH
BSPQ000603042N2B00	2.2	500 MHz,500 mV	20	9000	0.12	600	B=±0.1nH
BSPQ000603042N2C00	2.2	500 MHz,500 mV	20	9000	0.12	600	C=±0.2nH
BSPQ000603042N3B00	2.3	500 MHz,500 mV	20	9000	0.12	600	B=±0.1nH
BSPQ000603042N3C00	2.3	500 MHz,500 mV	20	9000	0.12	600	C=±0.2nH
BSPQ000603042N4B00	2.4	500 MHz,500 mV	20	9000	0.12	600	B=±0.1nH
BSPQ000603042N4C00	2.4	500 MHz,500 mV	20	9000	0.12	600	C=±0.2nH
BSPQ000603042N5B00	2.5	500 MHz,500 mV	20	9000	0.12	600	B=±0.1nH
BSPQ000603042N5C00	2.5	500 MHz,500 mV	20	9000	0.12	600	C=±0.2nH
BSPQ000603042N6B00	2.6	500 MHz,500 mV	20	9000	0.12	600	B=±0.1nH
BSPQ000603042N6C00	2.6	500 MHz,500 mV	20	9000	0.12	600	C=±0.2nH
BSPQ000603042N7B00	2.7	500 MHz,500 mV	20	9000	0.12	600	B=±0.1nH
BSPQ000603042N7C00	2.7	500 MHz,500 mV	20	9000	0.12	600	C=±0.2nH
BSPQ000603042N8B00	2.8	500 MHz,500 mV	20	8000	0.12	600	B=±0.1nH
BSPQ000603042N8C00	2.8	500 MHz,500 mV	20	8000	0.12	600	C=±0.2nH
BSPQ000603042N9B00	2.9	500 MHz,500 mV	20	8000	0.12	600	B=±0.1nH
BSPQ000603042N9C00	2.9	500 MHz,500 mV	20	8000	0.12	600	C=±0.2nH
BSPQ000603043N0B00	3	500 MHz,500 mV	20	8000	0.12	600	B=±0.1nH
BSPQ000603043N0C00	3	500 MHz,500 mV	20	8000	0.12	600	C=±0.2nH

NOTE: tolerance B=±0.1nH / C=±0.2nH / H=±3% / J=±5%

- 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 25°C
- 3.Residual impedance of short chip : 0.48nH

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BSPQ000603043N1B00	3.1	500 MHz,500 mV	20	7500	0.17	500	B=±0.1nH
BSPQ000603043N1C00	3.1	500 MHz,500 mV	20	7500	0.17	500	C=±0.2nH
BSPQ000603043N2B00	3.2	500 MHz,500 mV	20	7000	0.17	500	B=±0.1nH
BSPQ000603043N2C00	3.2	500 MHz,500 mV	20	7000	0.17	500	C=±0.2nH
BSPQ000603043N3B00	3.3	500 MHz,500 mV	20	7000	0.17	500	B=±0.1nH
BSPQ000603043N3C00	3.3	500 MHz,500 mV	20	7000	0.17	500	C=±0.2nH
BSPQ000603043N4B00	3.4	500 MHz,500 mV	20	7000	0.17	500	B=±0.1nH
BSPQ000603043N4C00	3.4	500 MHz,500 mV	20	7000	0.17	500	C=±0.2nH
BSPQ000603043N5B00	3.5	500 MHz,500 mV	20	7000	0.17	500	B=±0.1nH
BSPQ000603043N5C00	3.5	500 MHz,500 mV	20	7000	0.17	500	C=±0.2nH
BSPQ000603043N6B00	3.6	500 MHz,500 mV	20	7000	0.17	500	B=±0.1nH
BSPQ000603043N6C00	3.6	500 MHz,500 mV	20	7000	0.17	500	C=±0.2nH
BSPQ000603043N7B00	3.7	500 MHz,500 mV	20	7000	0.17	500	B=±0.1nH
BSPQ000603043N7C00	3.7	500 MHz,500 mV	20	7000	0.17	500	C=±0.2nH
BSPQ000603043N8B00	3.8	500 MHz,500 mV	20	7000	0.17	500	B=±0.1nH
BSPQ000603043N8C00	3.8	500 MHz,500 mV	20	7000	0.17	500	C=±0.2nH
BSPQ000603043N9B00	3.9	500 MHz,500 mV	20	7000	0.17	500	B=±0.1nH
BSPQ000603043N9C00	3.9	500 MHz,500 mV	20	7000	0.17	500	C=±0.2nH
BSPQ000603044N0B00	4	500 MHz,500 mV	20	7000	0.17	500	B=±0.1nH
BSPQ000603044N0C00	4	500 MHz,500 mV	20	7000	0.17	500	C=±0.2nH
BSPQ000603044N1B00	4.1	500 MHz,500 mV	20	7000	0.17	500	B=±0.1nH
BSPQ000603044N1C00	4.1	500 MHz,500 mV	20	7000	0.17	500	C=±0.2nH
BSPQ000603044N2B00	4.2	500 MHz,500 mV	20	7000	0.17	500	B=±0.1nH
BSPQ000603044N2C00	4.2	500 MHz,500 mV	20	7000	0.17	500	C=±0.2nH

NOTE: tolerance B=±0.1nH / C=±0.2nH / H=±3% / J=±5%

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BSPQ000603044N3H00	4.3	500 MHz,500 mV	20	7000	0.17	500	H=±3%
BSPQ000603044N3J00	4.3	500 MHz,500 mV	20	7000	0.17	500	J=±5%
BSPQ000603044N7H00	4.7	500 MHz,500 mV	20	7000	0.25	400	H=±3%
BSPQ000603044N7J00	4.7	500 MHz,500 mV	20	7000	0.25	400	J=±5%
BSPQ000603045N1H00	5.1	500 MHz,500 mV	20	5500	0.25	400	H=±3%
BSPQ000603045N1J00	5.1	500 MHz,500 mV	20	5500	0.25	400	J=±5%
BSPQ000603045N6H00	5.6	500 MHz,500 mV	20	5500	0.25	400	H=±3%
BSPQ000603045N6J00	5.6	500 MHz,500 mV	20	5500	0.25	400	J=±5%
BSPQ000603046N2H00	6.2	500 MHz,500 mV	20	5500	0.25	400	H=±3%
BSPQ000603046N2J00	6.2	500 MHz,500 mV	20	5500	0.25	400	J=±5%
BSPQ000603046N8H00	6.8	500 MHz,500 mV	20	5500	0.3	400	H=±3%
BSPQ000603046N8J00	6.8	500 MHz,500 mV	20	5500	0.3	400	J=±5%
BSPQ000603047N5H00	7.5	500 MHz,500 mV	20	4500	0.3	400	H=±3%
BSPQ000603047N5J00	7.5	500 MHz,500 mV	20	4500	0.3	400	J=±5%
BSPQ000603048N2H00	8.2	500 MHz,500 mV	20	4500	0.4	300	H=±3%
BSPQ000603048N2J00	8.2	500 MHz,500 mV	20	4500	0.4	300	J=±5%
BSPQ000603049N1H00	9.1	500 MHz,500 mV	20	4500	0.4	300	H=±3%
BSPQ000603049N1J00	9.1	500 MHz,500 mV	20	4500	0.4	300	J=±5%
BSPQ0006030410NH00	10	500 MHz,500 mV	20	4500	0.4	300	H=±3%
BSPQ0006030410NJ00	10	500 MHz,500 mV	20	4500	0.4	300	J=±5%
BSPQ0006030412NH00	12	500 MHz,500 mV	20	4000	0.5	300	H=±3%
BSPQ0006030412NJ00	12	500 MHz,500 mV	20	4000	0.5	300	J=±5%
BSPQ0006030415NH00	15	500 MHz,500 mV	20	3500	0.7	300	H=±3%
BSPQ0006030415NJ00	15	500 MHz,500 mV	20	3500	0.7	300	J=±5%
BSPQ0006030418NH00	18	500 MHz,500 mV	20	3500	0.8	250	H=±3%
BSPQ0006030418NJ00	18	500 MHz,500 mV	20	3500	0.8	250	J=±5%
BSPQ0006030422NH00	22	500 MHz,500 mV	20	3000	0.82	250	H=±3%
BSPQ0006030422NJ00	22	500 MHz,500 mV	20	3000	0.82	250	J=±5%

NOTE: tolerance B=±0.1nH / C=±0.2nH / H=±3% / J=±5%

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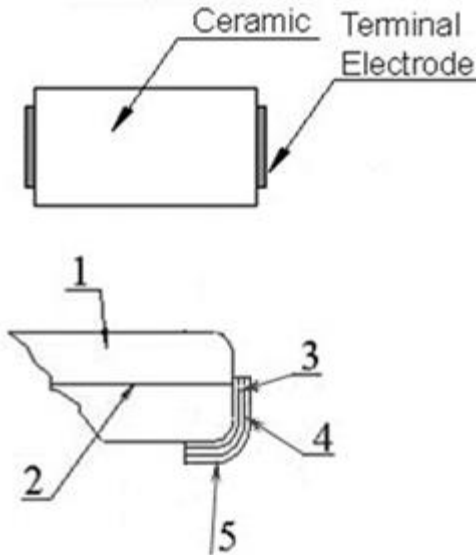
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Construction & Material List



No	Part	Material
1	Main Substance	Al ₂ O ₃ -SiO ₂
2	Silver electrode	Ag
3	Silver electrode	Ag
4	Ni plating	Ni
5	Sn plating	Sn

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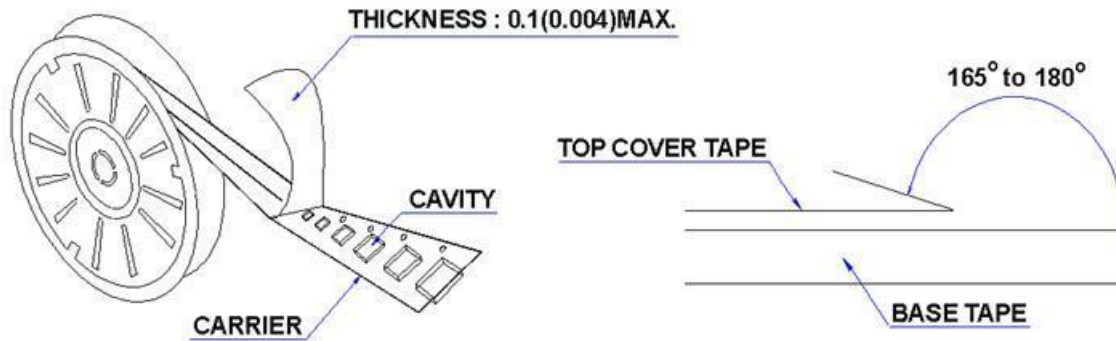
Description: Film Type High Q RF chip inductors

PART NUMBER: BSPQ00060304 Series

Packaging

Packaging -Cover Tape

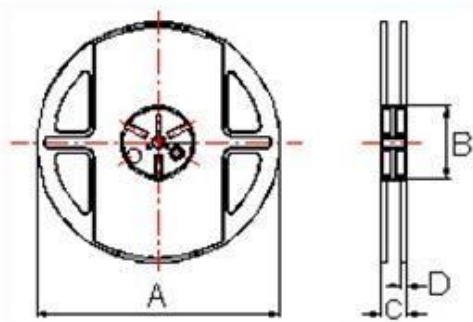
The force for tearing off cover tape is 10 to 100 grams in the arrow direction.



Packaging Quantity

TYPE	PCS/REEL
060304	15000

Reel Dimensions



Dimensions in mm

TYPE	A	B	C	D
060304	180	60	13	1.5

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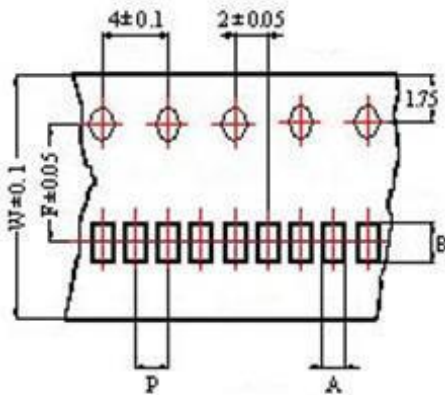
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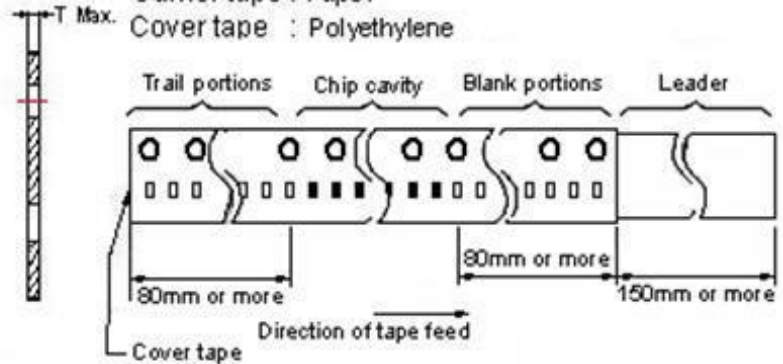
Packaging

Tape Dimensions in mm



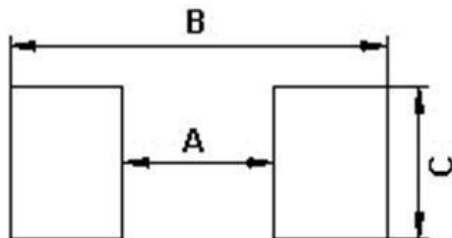
Tape Material

Carrier tape : Paper
Cover tape : Polyethylene



TYPE	A	B	T	W	P	F
060304	0.37	0.68	0.45	8	2	3.5

Recommended Land Pattern:



Dimensions in mm

TYPE	A	B	C
060304	0.3	0.75~1.05	0.3

Note:

1. Please make sure that your product 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)
5. The moisture sensitivity level (MSL) of products is classified as level 1.

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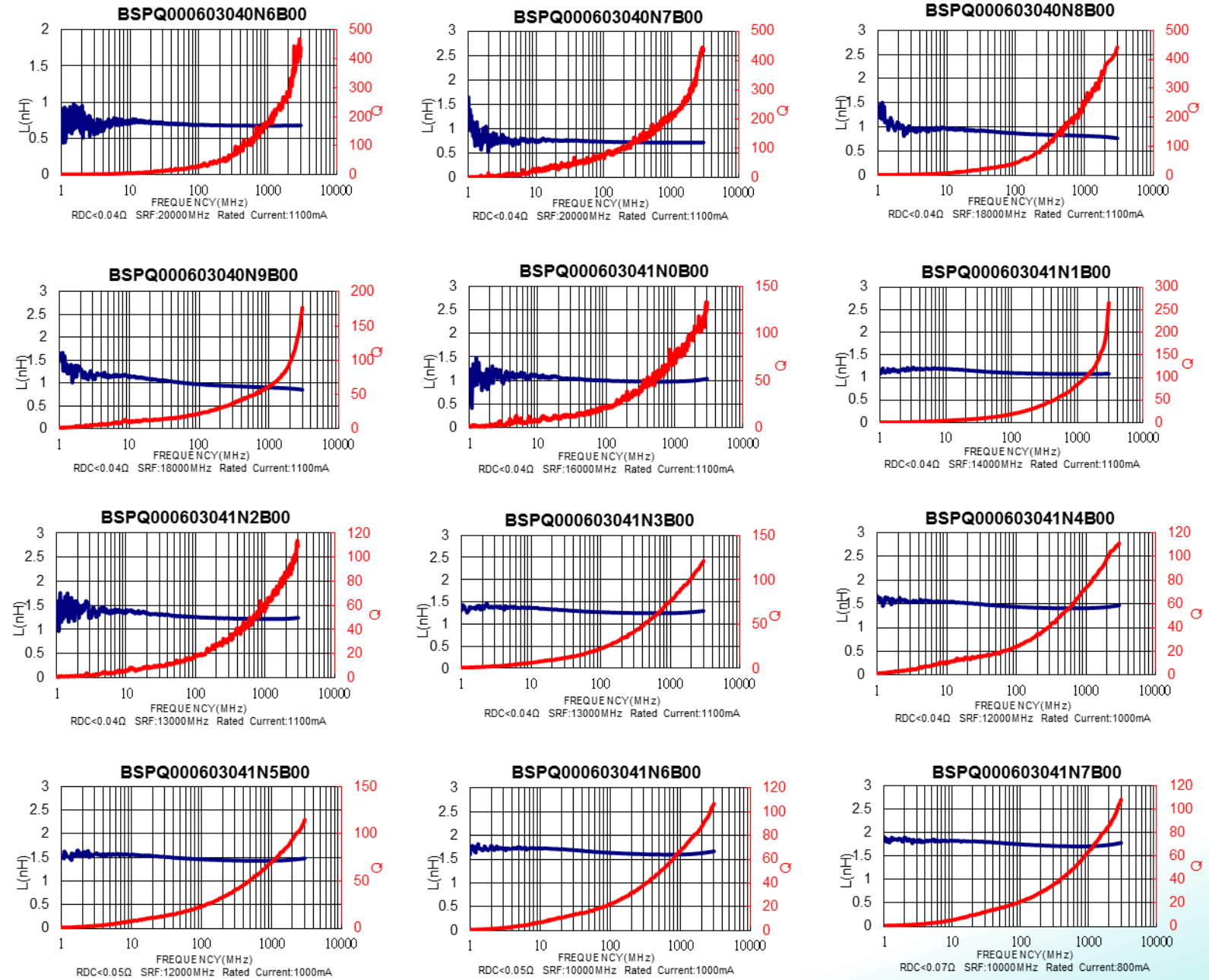
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Graph



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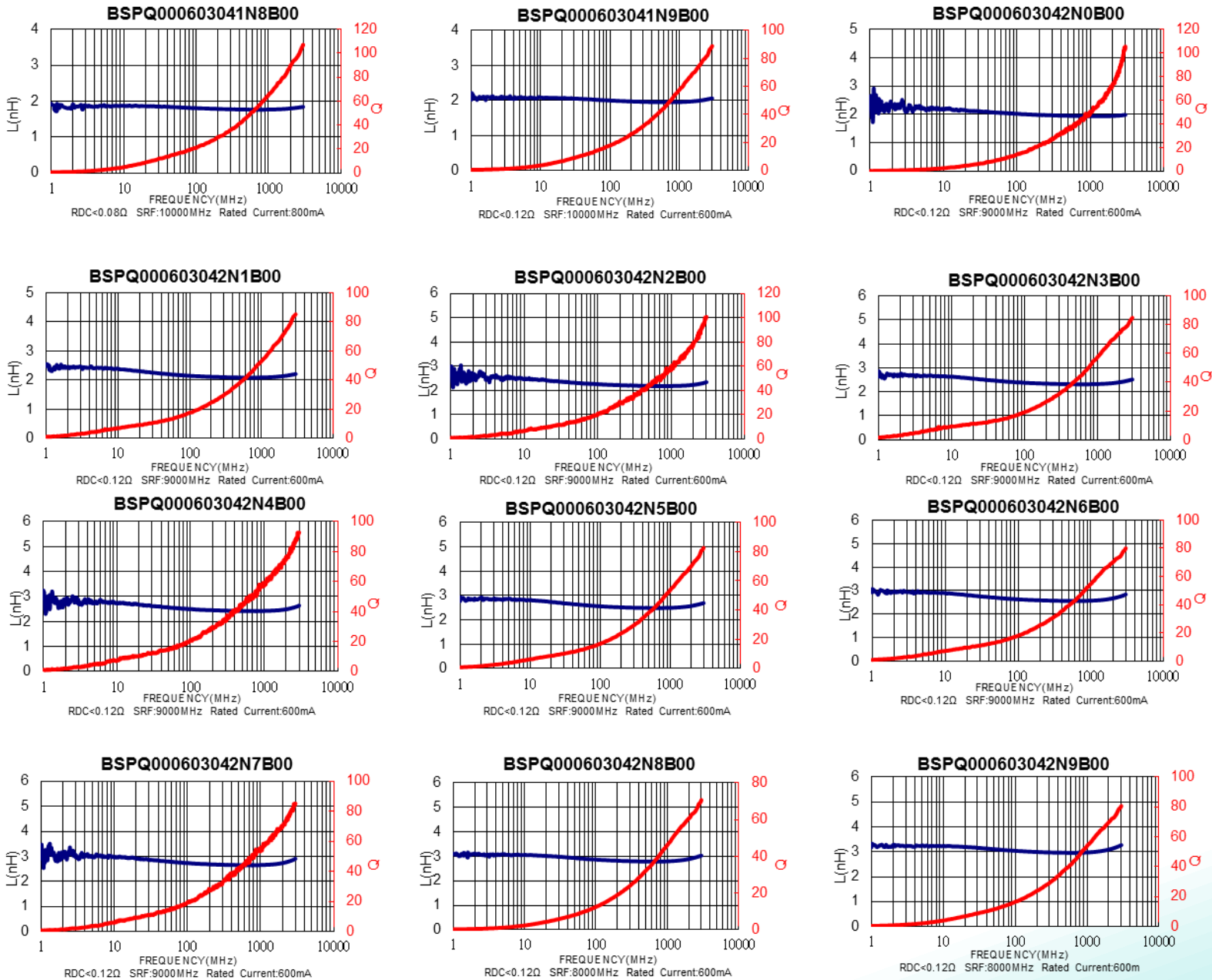
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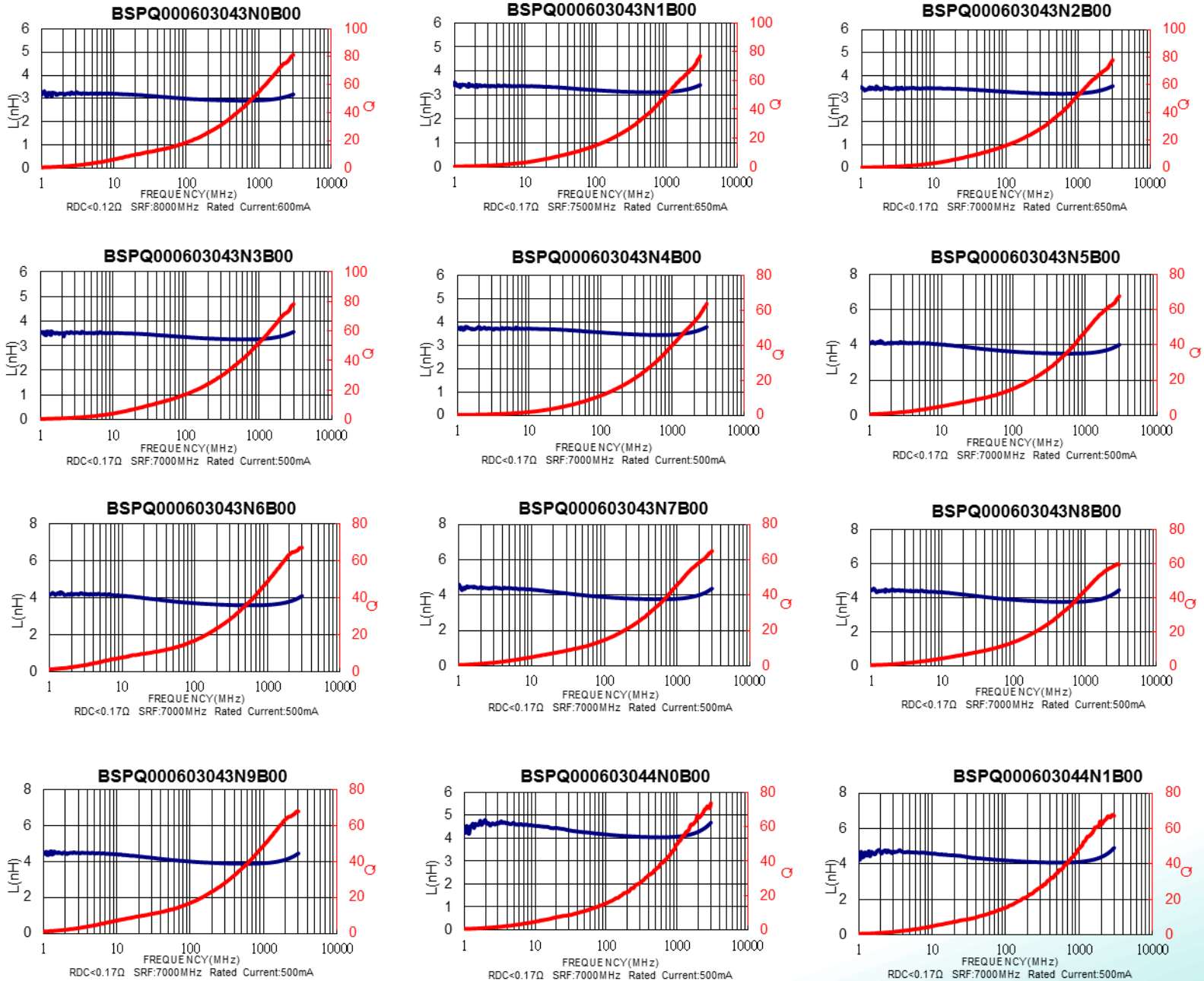
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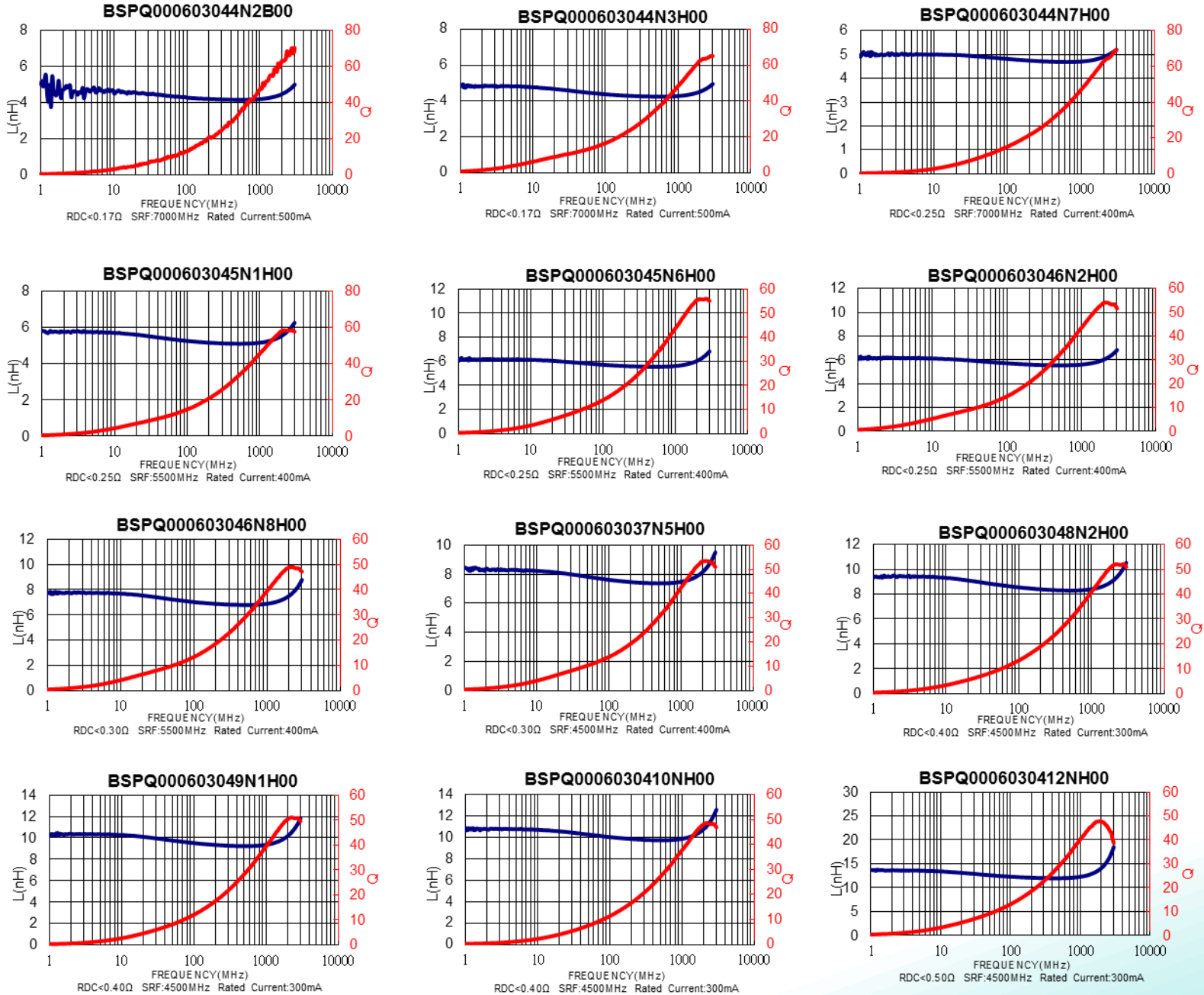
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Description: Film Type High Q RF chip inductors

PART NUMBER: BSPQ00060304 Series

Graph



In the effort to improve our products, we reserve the right to make changes judged to be necessary.

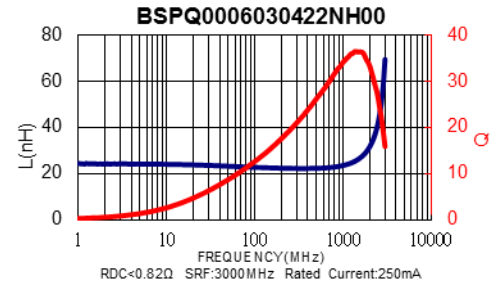
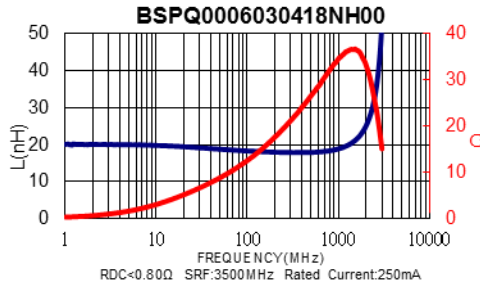
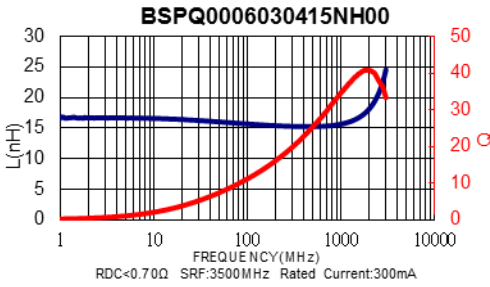
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Description: Film Type High Q RF chip inductors**PART NUMBER: BSPQ00060304 Series****REVISION HISTORY**

<u>Revision</u>	<u>Date</u>	<u>Description</u>
Version 1	Mar. 23, 2022	- New issue
Version 2	Aug. 09, 2022	- Updated electrical characteristics.