

Description: Film Type High Q RF chip inductors

PART NUMBER: BSPQ00040203 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 : 0.4 x 0.2 x 0.3 mm
- Excellent high frequency application
- Higher Q factor
- Miniaturization
- Tight tolerance

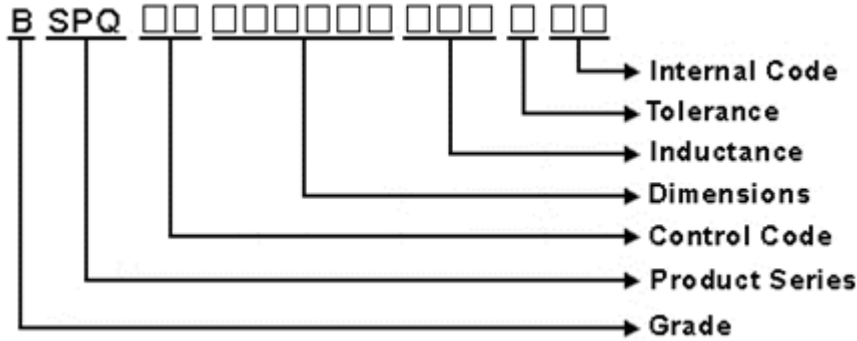
Applications

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

Description: Film Type High Q RF chip inductors

PART NUMBER: BSPQ00040203 Series

Part Numbering



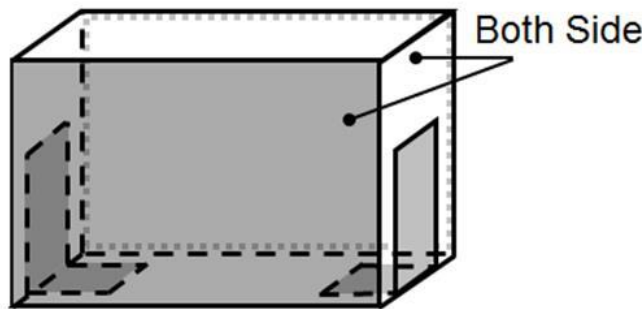
Rating

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

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

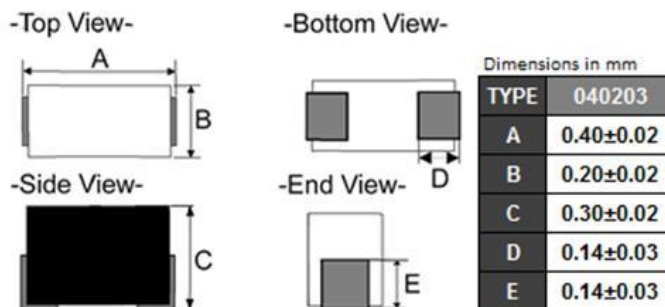
CONFIDENTIAL AND PROPRIETARY INFORMATION

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

Description: Film Type High Q RF chip inductors

PART NUMBER: BSPQ00040203 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
BSPQ000402030N2B00	0.2	500 MHz,500 mV	-	17000	0.01	1000	B=±0.1nH
BSPQ000402030N2C00	0.2	500 MHz,500 mV	-	17000	0.01	1000	C=±0.2nH
BSPQ000402030N3B00	0.3	500 MHz,500 mV	-	17000	0.02	1000	B=±0.1nH
BSPQ000402030N3C00	0.3	500 MHz,500 mV	-	17000	0.02	1000	C=±0.2nH
BSPQ000402030N4B00	0.4	500 MHz,500 mV	14	17000	0.03	1000	B=±0.1nH
BSPQ000402030N4C00	0.4	500 MHz,500 mV	14	17000	0.03	1000	C=±0.2nH
BSPQ000402030N5B00	0.5	500 MHz,500 mV	14	17000	0.04	1000	B=±0.1nH
BSPQ000402030N5C00	0.5	500 MHz,500 mV	14	17000	0.04	1000	C=±0.2nH
BSPQ000402030N6B00	0.6	500 MHz,500 mV	14	17000	0.05	950	B=±0.1nH
BSPQ000402030N6C00	0.6	500 MHz,500 mV	14	17000	0.05	950	C=±0.2nH
BSPQ000402030N7B00	0.7	500 MHz,500 mV	14	15500	0.05	900	B=±0.1nH
BSPQ000402030N7C00	0.7	500 MHz,500 mV	14	15500	0.05	900	C=±0.2nH
BSPQ000402030N8B00	0.8	500 MHz,500 mV	14	15500	0.05	900	B=±0.1nH
BSPQ000402030N8C00	0.8	500 MHz,500 mV	14	15500	0.05	900	C=±0.2nH
BSPQ000402030N9B00	0.9	500 MHz,500 mV	14	14600	0.05	900	B=±0.1nH
BSPQ000402030N9C00	0.9	500 MHz,500 mV	14	14600	0.05	900	C=±0.2nH
BSPQ000402031N0B00	1	500 MHz,500 mV	14	13200	0.05	900	B=±0.1nH
BSPQ000402031N0C00	1	500 MHz,500 mV	14	13200	0.05	900	C=±0.2nH
BSPQ000402031N1B00	1.1	500 MHz,500 mV	14	12800	0.06	850	B=±0.1nH
BSPQ000402031N1C00	1.1	500 MHz,500 mV	14	12800	0.06	850	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 : 0.11nH

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

CONFIDENTIAL AND PROPRIETARY INFORMATION

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

Description: Film Type High Q RF chip inductors
PART NUMBER: BSPQ00040203 Series
Electrical Characteristics

Part No.	Inductance (nH)	L,Q Test Freq.	Q Min.	SRF (MHz)Min.	RDC (Ω)Max.	Rated Current (mA)Max.	Tolerance
BSPQ000402031N2B00	1.2	500 MHz,500 mV	14	12800	0.06	800	B=±0.1nH
BSPQ000402031N2C00	1.2	500 MHz,500 mV	14	12800	0.06	800	C=±0.2nH
BSPQ000402031N3B00	1.3	500 MHz,500 mV	14	12700	0.08	700	B=±0.1nH
BSPQ000402031N3C00	1.3	500 MHz,500 mV	14	12700	0.08	700	C=±0.2nH
BSPQ000402031N4B00	1.4	500 MHz,500 mV	14	12700	0.08	700	B=±0.1nH
BSPQ000402031N4C00	1.4	500 MHz,500 mV	14	12700	0.08	700	C=±0.2nH
BSPQ000402031N5B00	1.5	500 MHz,500 mV	14	12700	0.08	700	B=±0.1nH
BSPQ000402031N5C00	1.5	500 MHz,500 mV	14	12700	0.08	700	C=±0.2nH
BSPQ000402031N6B00	1.6	500 MHz,500 mV	14	10700	0.08	700	B=±0.1nH
BSPQ000402031N6C00	1.6	500 MHz,500 mV	14	10700	0.08	700	C=±0.2nH
BSPQ000402031N7B00	1.7	500 MHz,500 mV	14	10700	0.08	700	B=±0.1nH
BSPQ000402031N7C00	1.7	500 MHz,500 mV	14	10700	0.08	700	C=±0.2nH
BSPQ000402031N8B00	1.8	500 MHz,500 mV	14	10200	0.08	700	B=±0.1nH
BSPQ000402031N8C00	1.8	500 MHz,500 mV	14	10200	0.08	700	C=±0.2nH
BSPQ000402031N9B00	1.9	500 MHz,500 mV	14	10200	0.08	700	B=±0.1nH
BSPQ000402031N9C00	1.9	500 MHz,500 mV	14	10200	0.08	700	C=±0.2nH
BSPQ000402032N0B00	2	500 MHz,500 mV	14	10100	0.1	700	B=±0.1nH
BSPQ000402032N0C00	2	500 MHz,500 mV	14	10100	0.1	700	C=±0.2nH
BSPQ000402032N1B00	2.1	500 MHz,500 mV	14	10100	0.1	650	B=±0.1nH
BSPQ000402032N1C00	2.1	500 MHz,500 mV	14	10100	0.1	650	C=±0.2nH
BSPQ000402032N2B00	2.2	500 MHz,500 mV	14	9800	0.2	500	B=±0.1nH
BSPQ000402032N2C00	2.2	500 MHz,500 mV	14	9800	0.2	500	C=±0.2nH
BSPQ000402032N3B00	2.3	500 MHz,500 mV	14	9800	0.2	450	B=±0.1nH
BSPQ000402032N3C00	2.3	500 MHz,500 mV	14	9800	0.2	450	C=±0.2nH
BSPQ000402032N4B00	2.4	500 MHz,500 mV	14	9500	0.2	450	B=±0.1nH
BSPQ000402032N4C00	2.4	500 MHz,500 mV	14	9500	0.2	450	C=±0.2nH
BSPQ000402032N5B00	2.5	500 MHz,500 mV	14	9500	0.2	450	B=±0.1nH
BSPQ000402032N5C00	2.5	500 MHz,500 mV	14	9500	0.2	450	C=±0.2nH
BSPQ000402032N6B00	2.6	500 MHz,500 mV	14	9500	0.2	450	B=±0.1nH
BSPQ000402032N6C00	2.6	500 MHz,500 mV	14	9500	0.2	450	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 : 0.11nH

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

CONFIDENTIAL AND PROPRIETARY INFORMATION

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

Description: Film Type High Q RF chip inductors

PART NUMBER: BSPQ00040203 Series

Electrical Characteristics

Part No.	Inductance (nH)	L,Q Test Freq.	Q Min.	SRF (MHz)Min.	RDC (Ω)Max.	Rated Current (mA)Max.	Tolerance
BSPQ000402032N7B00	2.7	500 MHz,500 mV	14	8800	0.2	450	B=±0.1nH
BSPQ000402032N7C00	2.7	500 MHz,500 mV	14	8800	0.2	450	C=±0.2nH
BSPQ000402032N8B00	2.8	500 MHz,500 mV	14	8800	0.2	450	B=±0.1nH
BSPQ000402032N8C00	2.8	500 MHz,500 mV	14	8800	0.2	450	C=±0.2nH
BSPQ000402032N9B00	2.9	500 MHz,500 mV	14	8800	0.2	450	B=±0.1nH
BSPQ000402032N9C00	2.9	500 MHz,500 mV	14	8800	0.2	450	C=±0.2nH
BSPQ000402033N0B00	3	500 MHz,500 mV	14	8500	0.2	450	B=±0.1nH
BSPQ000402033N0C00	3	500 MHz,500 mV	14	8500	0.2	450	C=±0.2nH
BSPQ000402033N1B00	3.1	500 MHz,500 mV	14	8500	0.25	400	B=±0.1nH
BSPQ000402033N1C00	3.1	500 MHz,500 mV	14	8500	0.25	400	C=±0.2nH
BSPQ000402033N2B00	3.2	500 MHz,500 mV	14	8500	0.25	400	B=±0.1nH
BSPQ000402033N2C00	3.2	500 MHz,500 mV	14	8500	0.25	400	C=±0.2nH
BSPQ000402033N3B00	3.3	500 MHz,500 mV	14	8200	0.25	400	B=±0.1nH
BSPQ000402033N3C00	3.3	500 MHz,500 mV	14	8200	0.25	400	C=±0.2nH
BSPQ000402033N4B00	3.4	500 MHz,500 mV	14	8200	0.3	400	B=±0.1nH
BSPQ000402033N4C00	3.4	500 MHz,500 mV	14	8200	0.3	400	C=±0.2nH
BSPQ000402033N5B00	3.5	500 MHz,500 mV	14	8200	0.3	350	B=±0.1nH
BSPQ000402033N5C00	3.5	500 MHz,500 mV	14	8200	0.3	350	C=±0.2nH
BSPQ000402033N6B00	3.6	500 MHz,500 mV	14	8200	0.3	350	B=±0.1nH
BSPQ000402033N6C00	3.6	500 MHz,500 mV	14	8200	0.3	350	C=±0.2nH
BSPQ000402033N7B00	3.7	500 MHz,500 mV	14	8200	0.35	350	B=±0.1nH
BSPQ000402033N7C00	3.7	500 MHz,500 mV	14	8200	0.35	350	C=±0.2nH
BSPQ000402033N8B00	3.8	500 MHz,500 mV	14	8200	0.35	350	B=±0.1nH
BSPQ000402033N8C00	3.8	500 MHz,500 mV	14	8200	0.35	350	C=±0.2nH
BSPQ000402033N9B00	3.9	500 MHz,500 mV	14	7700	0.35	350	B=±0.1nH
BSPQ000402033N9C00	3.9	500 MHz,500 mV	14	7700	0.35	350	C=±0.2nH
BSPQ000402034N0B00	4	500 MHz,500 mV	14	6900	0.35	350	B=±0.1nH
BSPQ000402034N0C00	4	500 MHz,500 mV	14	6900	0.35	350	C=±0.2nH
BSPQ000402034N1B00	4.1	500 MHz,500 mV	14	6900	0.35	350	B=±0.1nH
BSPQ000402034N1C00	4.1	500 MHz,500 mV	14	6900	0.35	350	C=±0.2nH
BSPQ000402034N2B00	4.2	500 MHz,500 mV	14	6900	0.35	350	B=±0.1nH
BSPQ000402034N2C00	4.2	500 MHz,500 mV	14	6900	0.35	350	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 : 0.11nH

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

CONFIDENTIAL AND PROPRIETARY INFORMATION

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.



Description: Film Type High Q RF chip inductors
PART NUMBER: BSPQ00040203 Series
Electrical Characteristics

Part No.	Inductance (nH)	L,Q Test Freq.	Q Min.	SRF (MHz)Min.	RDC (Ω)Max.	Rated Current (mA)Max.	Tolerance
BSPQ000402034N3H00	4.3	500 MHz,500 mV	13	6900	0.35	350	H=±3%
BSPQ000402034N3J00	4.3	500 MHz,500 mV	13	6900	0.35	350	J=±5%
BSPQ000402034N7H00	4.7	500 MHz,500 mV	13	6700	0.35	350	H=±3%
BSPQ000402034N7J00	4.7	500 MHz,500 mV	13	6700	0.35	350	J=±5%
BSPQ000402035N1H00	5.1	500 MHz,500 mV	13	6600	0.35	350	H=±3%
BSPQ000402035N1J00	5.1	500 MHz,500 mV	13	6600	0.35	350	J=±5%
BSPQ000402035N6H00	5.6	500 MHz,500 mV	13	6100	0.4	300	H=±3%
BSPQ000402035N6J00	5.6	500 MHz,500 mV	13	6100	0.4	300	J=±5%
BSPQ000402036N2H00	6.2	500 MHz,500 mV	13	6000	0.4	300	H=±3%
BSPQ000402036N2J00	6.2	500 MHz,500 mV	13	6000	0.4	300	J=±5%
BSPQ000402036N8H00	6.8	500 MHz,500 mV	13	5700	0.4	300	H=±3%
BSPQ000402036N8J00	6.8	500 MHz,500 mV	13	5700	0.4	300	J=±5%
BSPQ000402037N5H00	7.5	500 MHz,500 mV	13	5600	0.5	300	H=±3%
BSPQ000402037N5J00	7.5	500 MHz,500 mV	13	5600	0.5	300	J=±5%
BSPQ000402038N2H00	8.2	500 MHz,500 mV	13	5100	0.5	300	H=±3%
BSPQ000402038N2J00	8.2	500 MHz,500 mV	13	5100	0.5	300	J=±5%
BSPQ000402039N1H00	9.1	500 MHz,500 mV	13	4900	0.5	300	H=±3%
BSPQ000402039N1J00	9.1	500 MHz,500 mV	13	4900	0.5	300	J=±5%
BSPQ0004020310NH00	10	500 MHz,500 mV	13	4900	0.6	250	H=±3%
BSPQ0004020310NJ00	10	500 MHz,500 mV	13	4900	0.6	250	J=±5%
BSPQ0004020311NH00	11	500 MHz,500 mV	13	4000	0.8	250	H=±3%
BSPQ0004020311NJ00	11	500 MHz,500 mV	13	4000	0.8	250	J=±5%
BSPQ0004020312NH00	12	500 MHz,500 mV	13	4000	0.82	230	H=±3%
BSPQ0004020312NJ00	12	500 MHz,500 mV	13	4000	0.82	230	J=±5%
BSPQ0004020313NH00	13	500 MHz,500 mV	13	4000	0.99	210	H=±3%
BSPQ0004020313NJ00	13	500 MHz,500 mV	13	4000	0.99	210	J=±5%
BSPQ0004020314NH00	14	500 MHz,500 mV	13	4000	1.26	190	H=±3%
BSPQ0004020314NJ00	14	500 MHz,500 mV	13	4000	1.26	190	J=±5%
BSPQ0004020315NH00	15	500 MHz,500 mV	13	4000	1.53	170	H=±3%
BSPQ0004020315NJ00	15	500 MHz,500 mV	13	4000	1.53	170	J=±5%
BSPQ0004020316NH00	16	500 MHz,500 mV	13	4000	1.53	170	H=±3%
BSPQ0004020316NJ00	16	500 MHz,500 mV	13	4000	1.53	170	J=±5%
BSPQ0004020318NH00	18	500 MHz,500 mV	13	3700	1.63	160	H=±3%
BSPQ0004020318NJ00	18	500 MHz,500 mV	13	3700	1.63	160	J=±5%

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 : 0.11nH

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

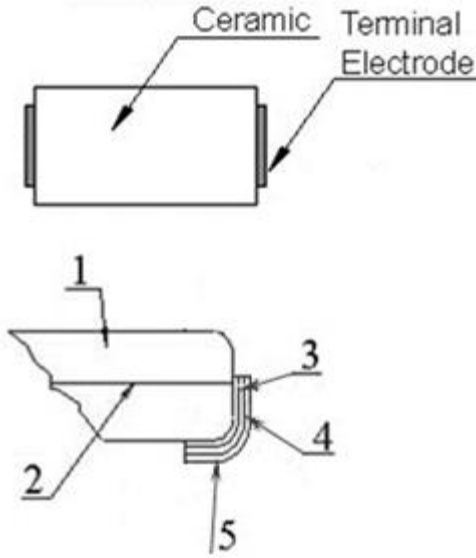
CONFIDENTIAL AND PROPRIETARY INFORMATION

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

Description: Film Type High Q RF chip inductors

PART NUMBER: BSPQ00040203 Series

Construction & Material List

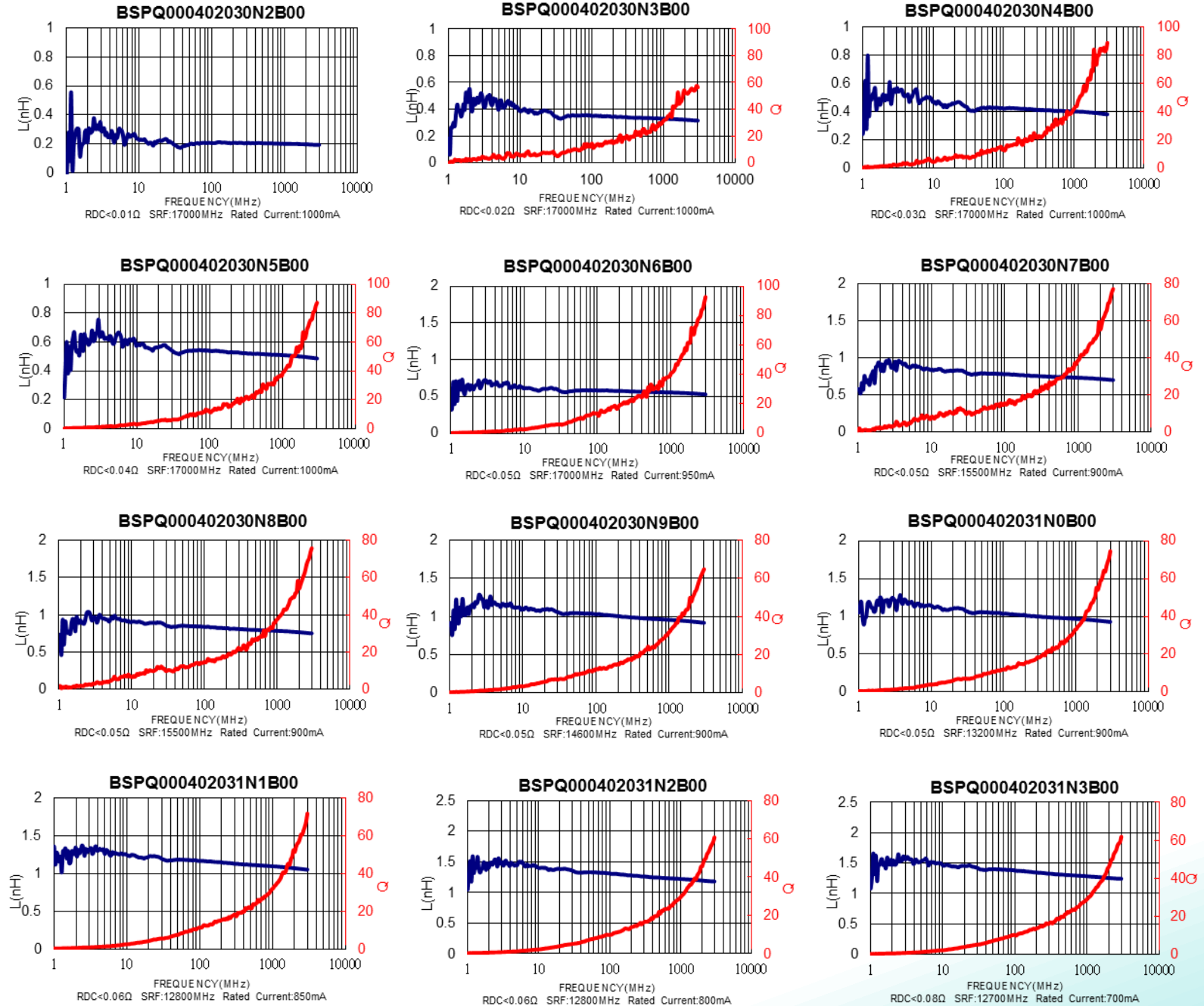


No	Part	Material
1	Main Substance	Al ₂ O ₃ -SiO ₂
2	Silver electrode	Ag
3	Silver electrode	Ag
4	Ni plating	Ni
5	Sn plating	Sn

Description: Film Type High Q RF chip inductors

PART NUMBER: BSPQ00040203 Series

Graph



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

CONFIDENTIAL AND PROPRIETARY INFORMATION

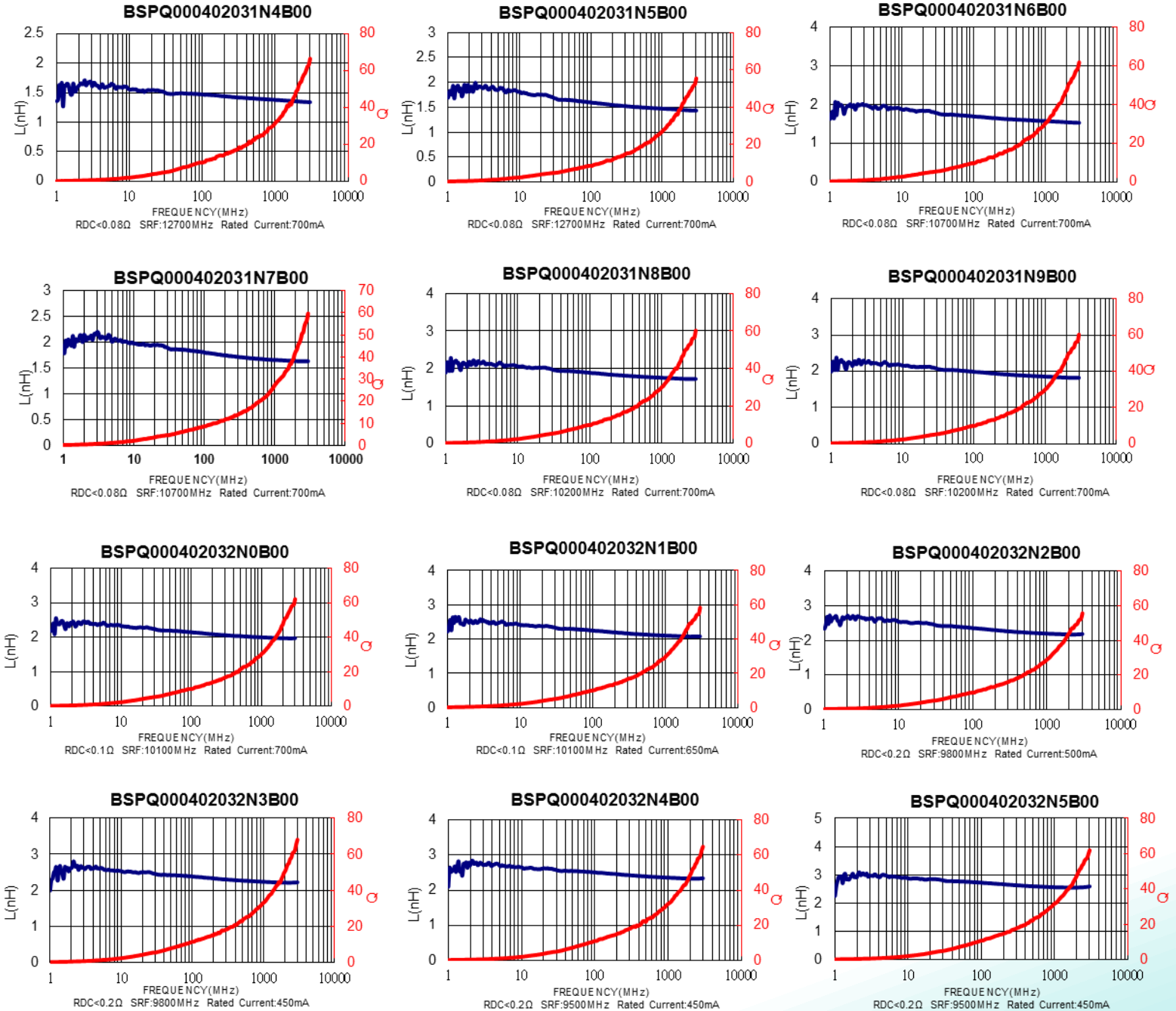
This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.



Description: Film Type High Q RF chip inductors

PART NUMBER: BSPQ00040203 Series

Graph



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

CONFIDENTIAL AND PROPRIETARY INFORMATION

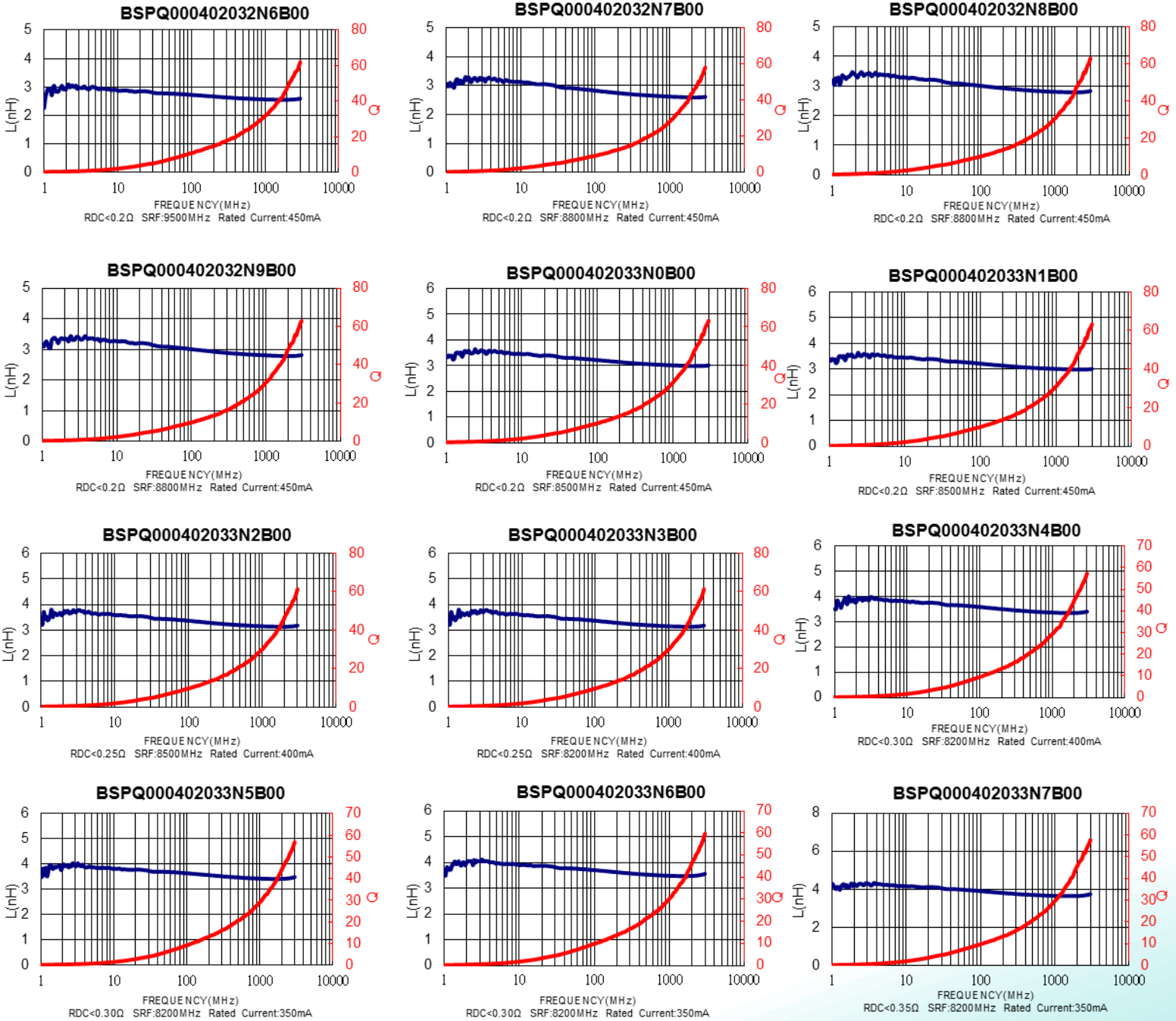
This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.



Description: Film Type High Q RF chip inductors

PART NUMBER: BSPQ00040203 Series

Graph



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

CONFIDENTIAL AND PROPRIETARY INFORMATION

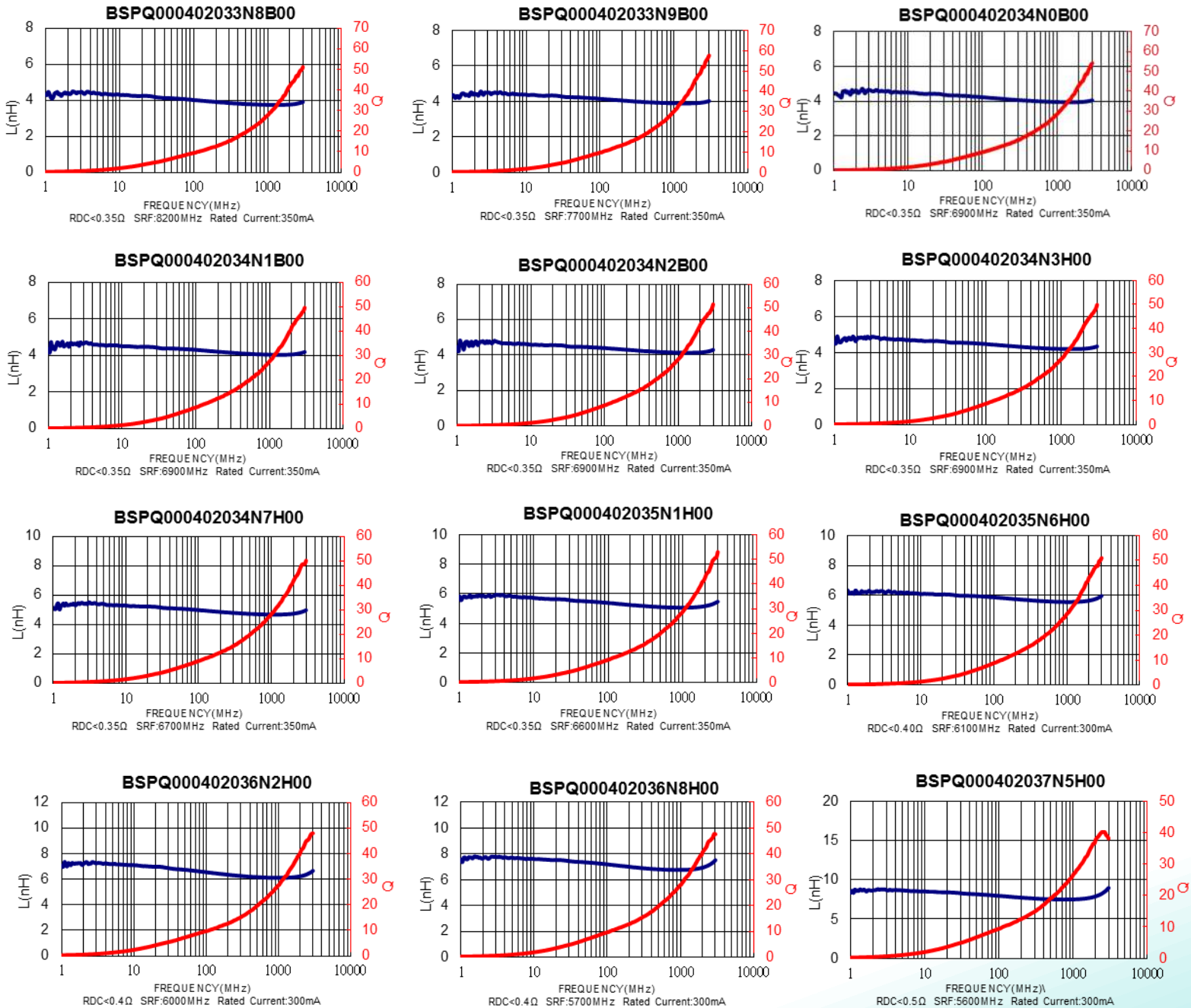
This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.



Description: Film Type High Q RF chip inductors

PART NUMBER: BSPQ00040203 Series

Graph



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

CONFIDENTIAL AND PROPRIETARY INFORMATION

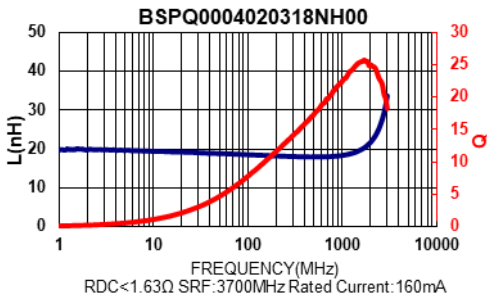
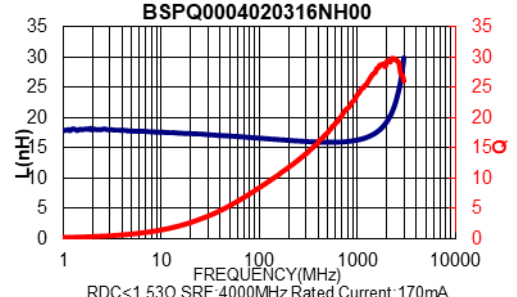
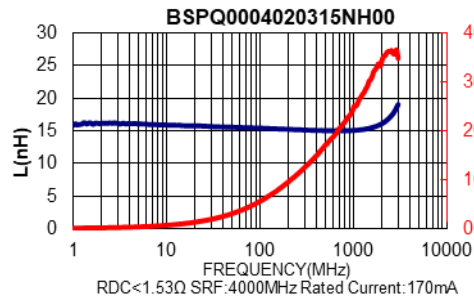
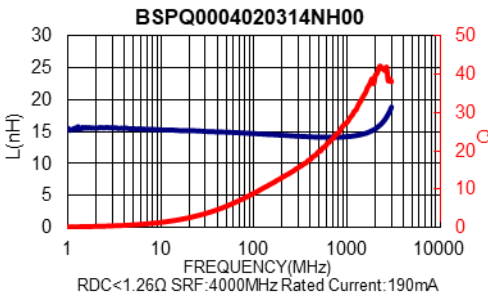
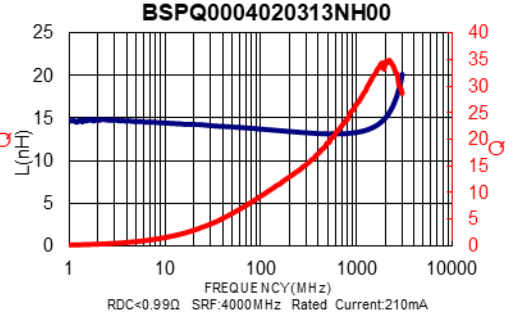
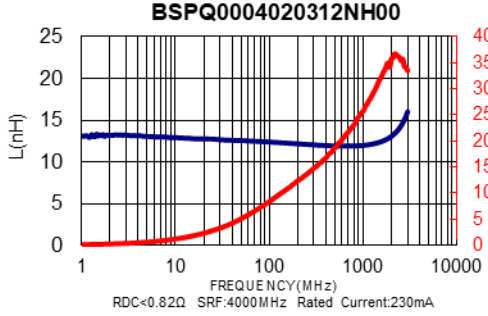
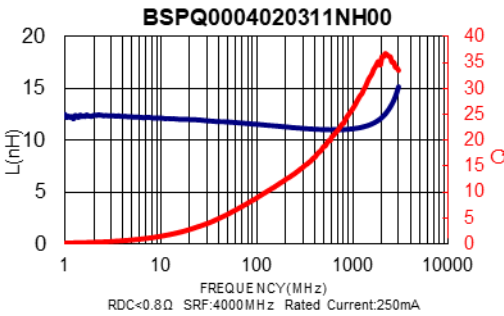
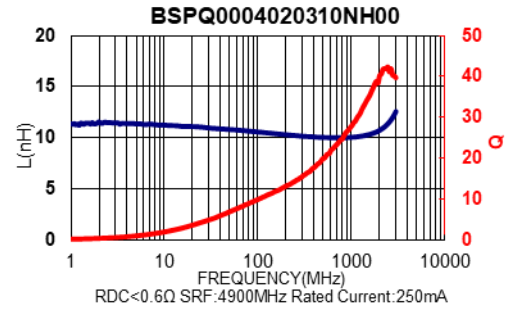
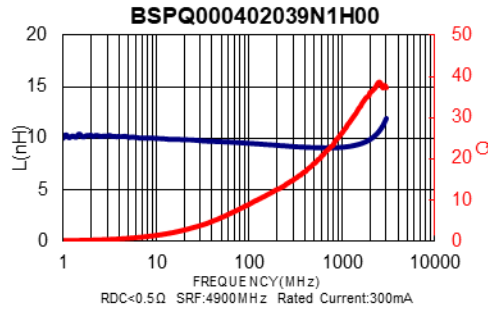
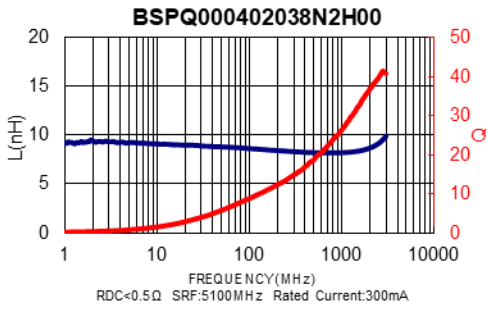
This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.



Description: Film Type High Q RF chip inductors

PART NUMBER: BSPQ00040203 Series

Graph



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

CONFIDENTIAL AND PROPRIETARY INFORMATION

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.



Description: Film Type High Q RF chip inductors**PART NUMBER: BSPQ00040203 Series****REVISION HISTORY**

Revision	Date	Description
Version 1	Apr. 01, 2022	- New issue
Version 2	Apr. 28, 2022	- Added Inductance 0N3,5N6
Version 3	Aug.10, 2022	- Added Inductance 1N7,1N8,8N2~15N
Version 4	Aug.22, 2022	- Added Inductance 16N,18N