

# Multilayer Ceramic Chip Inductor

## 積層式陶瓷晶片電感

### HBLS Series for High Frequency

HBLS 系列適用於高頻率產品

#### Electrical Characteristics 電氣特性

Part Number 產品料號	Inductance 感值 (nH) Tolerance 公差	Q 品質 係數 Min.	Test Frequency 測試頻率 (MHz)	Self-resonant Frequency 共振頻率 (GHz) Min.	DC Resistance 直流電阻 (Ω) Max.	Rated Current 額定電流 (mA) Max.	Thickness 厚度 (mm)
HBLS0603-1N0S	1.0±0.3nH	4	100	10	0.14	250	0.33 Max.
HBLS0603-1N2S	1.2±0.3nH	4	100	10	0.14	250	0.33 Max.
HBLS0603-1N5S	1.5±0.3nH	4	100	10	0.18	230	0.33 Max.
HBLS0603-1N8S	1.8±0.3nH	4	100	10	0.19	200	0.33 Max.
HBLS0603-2N2S	2.2±0.3nH	4	100	8.8	0.22	200	0.33 Max.
HBLS0603-2N7S	2.7±0.3nH	5	100	7.7	0.25	200	0.33 Max.
HBLS0603-3N3S	3.3±0.3nH	5	100	6.7	0.30	180	0.33 Max.
HBLS0603-3N9S	3.9±0.3nH	5	100	6.0	0.30	170	0.33 Max.
HBLS0603-4N7S	4.7±0.3nH	5	100	5.3	0.40	150	0.33 Max.
HBLS0603-5N1S	5.1±0.3nH	5	100	4.7	0.40	150	0.33 Max.
HBLS0603-5N6S	5.6±0.3nH	5	100	4.2	0.40	150	0.33 Max.
HBLS0603-6N8J	6.8±5%	5	100	3.5	0.50	150	0.33 Max.
HBLS0603-8N2J	8.2±5%	5	100	3.2	0.55	150	0.33 Max.
HBLS0603-10NJ	10±5%	5	100	2.8	0.65	150	0.33 Max.
HBLS0603-12NJ	12±5%	5	100	2.4	0.70	100	0.33 Max.
HBLS0603-15NJ	15±5%	5	100	2.2	0.80	100	0.33 Max.
HBLS0603-18NJ	18±5%	5	100	2.1	0.90	100	0.33 Max.
HBLS0603-22NJ	22±5%	5	100	1.8	1.20	100	0.33 Max.
HBLS0603-27NJ	27±5%	4	100	1.8	1.80	50	0.33 Max.
HBLS0603-33NJ	33±5%	4	100	1.7	2.10	50	0.33 Max.
HBLS0603-39NJ	39±5%	4	100	1.5	2.40	50	0.33 Max.

\* TEST EQUIPMENT: E4991A IMPEDANCE ANALYZER

量測儀器：E4991A 阻抗分析儀

# Multilayer Ceramic Chip Inductor

積層式陶瓷晶片電感

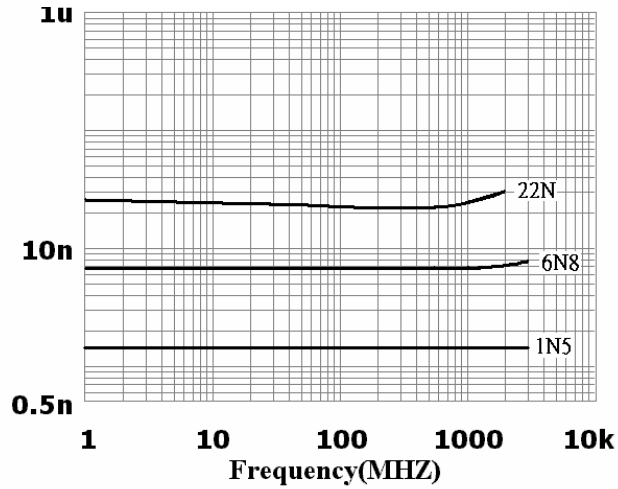
HBL5 Series for High Frequency

HBL5 系列適用於高頻率產品

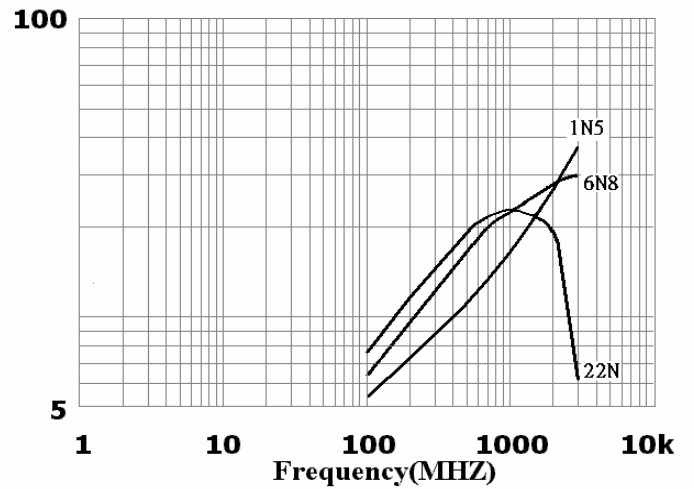
Electrical Characteristics 電氣特性

Size (尺寸): 0603 (0201)

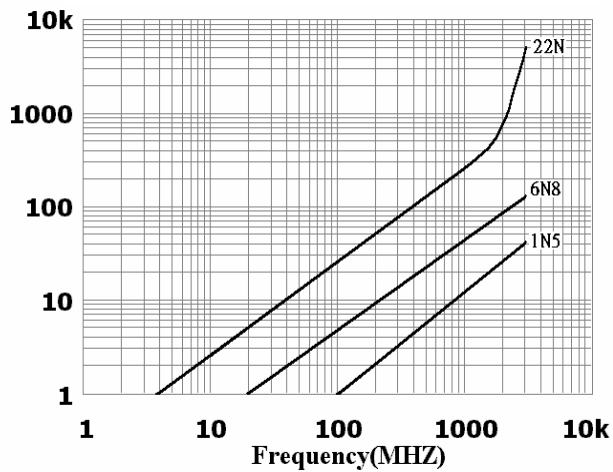
## INDUCTANCE vs. FREQUENCY



## Q vs. FREQUENCY



## IMPEDANCE vs. FREQUENCY



# Multilayer Ceramic Chip Inductor

## 積層式陶瓷晶片電感

### HBLS Series for High Frequency

### HBLS 系列適用於高頻率產品

#### Electrical Characteristics 電氣特性

Part Number 產品料號	Inductance 感值 (nH) Tolerance 公差	Q 品質 係數 Min.	Test Frequency 測試頻率 (MHz)	Self-resonant Frequency 共振頻率 (GHz) Min.	DC Resistance 直流電阻 (Ω) Max.	Rated Current 額定電流 (mA) Max.	Thickness 厚度 (mm)
HBLS1005-1N0S	1.0±0.3nH	8	100	10	0.08	300	0.5±0.05
HBLS1005-1N2S	1.2±0.3nH	8	100	10	0.09	300	0.5±0.05
HBLS1005-1N5S	1.5±0.3nH	8	100	6	0.10	300	0.5±0.05
HBLS1005-1N8S	1.8±0.3nH	8	100	6	0.12	300	0.5±0.05
HBLS1005-2N0S	2.0±0.3nH	8	100	6	0.12	300	0.5±0.05
HBLS1005-2N2S	2.2±0.3nH	8	100	6	0.13	300	0.5±0.05
HBLS1005-2N4S	2.4±0.3nH	8	100	6	0.13	300	0.5±0.05
HBLS1005-2N7S	2.7±0.3nH	8	100	6	0.13	300	0.5±0.05
HBLS1005-3N0S	3.0±0.3nH	8	100	6	0.16	300	0.5±0.05
HBLS1005-3N3S	3.3±0.3nH	8	100	6	0.16	300	0.5±0.05
HBLS1005-3N9S	3.9±0.3nH	8	100	4	0.21	300	0.5±0.05
HBLS1005-4N7S	4.7±0.3nH	8	100	4	0.21	300	0.5±0.05
HBLS1005-5N6S	5.6±0.3nH	8	100	4	0.23	300	0.5±0.05
HBLS1005-6N8J	6.8±5%	8	100	3.9	0.25	300	0.5±0.05
HBLS1005-8N2J	8.2±5%	8	100	3.6	0.28	300	0.5±0.05
HBLS1005-10NJ	10±5%	8	100	3.2	0.31	300	0.5±0.05
HBLS1005-12NJ	12±5%	8	100	2.7	0.40	300	0.5±0.05
HBLS1005-15NJ	15±5%	8	100	2.3	0.46	300	0.5±0.05
HBLS1005-18NJ	18±5%	8	100	2.1	0.55	300	0.5±0.05
HBLS1005-22NJ	22±5%	8	100	1.9	0.60	300	0.5±0.05
HBLS1005-27NJ	27±5%	8	100	1.6	0.70	300	0.5±0.05
HBLS1005-33NJ	33±5%	8	100	1.3	0.80	200	0.5±0.05
HBLS1005-39NJ	39±5%	8	100	1.2	0.90	200	0.5±0.05
HBLS1005-47NJ	47±5%	8	100	1.0	1.00	200	0.5±0.05

\* TEST EQUIPMENT: E4991A IMPEDANCE ANALYZER

量測儀器：E4991A 阻抗分析儀

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## 積層式陶瓷晶片電感

### HBLS Series for High Frequency

HBLS 系列適用於高頻率產品

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Part Number 產品料號	Inductance 感值 (nH) Tolerance 公差	Q 品質 係數 Min.	Test Frequency 測試頻率 (MHz)	Self-resonant Frequency 共振頻率 (GHz) Min.	DC Resistance 直流電阻 ( $\Omega$ ) Max.	Rated Current 額定電流 (mA) Max.	Thickness 厚度 (mm)
HBLS1005-56NJ	56 $\pm$ 5%	8	100	0.75	1.00	200	0.5 $\pm$ 0.05
HBLS1005-68NJ	68 $\pm$ 5%	8	100	0.75	1.20	180	0.5 $\pm$ 0.05
HBLS1005-82NJ	82 $\pm$ 5%	8	100	0.60	1.30	150	0.5 $\pm$ 0.05
HBLS1005-R10J	100 $\pm$ 5%	8	100	0.60	1.50	150	0.5 $\pm$ 0.05
HBLS1005-R12J	120 $\pm$ 5%	8	100	0.60	1.60	150	0.5 $\pm$ 0.05

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量測儀器：E4991A 阻抗分析儀

# Multilayer Ceramic Chip Inductor

積層式陶瓷晶片電感

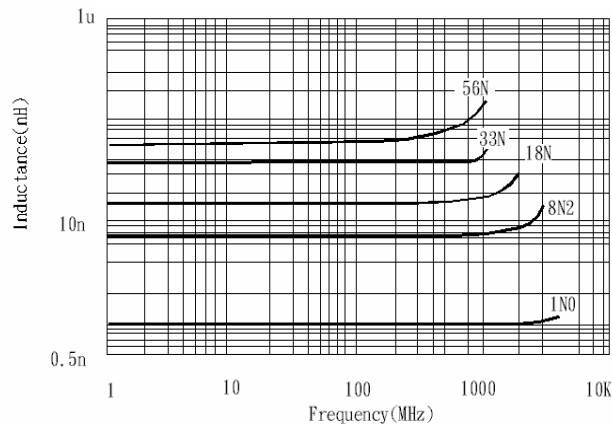
HBLS Series for High Frequency

HBLS 系列適用於高頻率產品

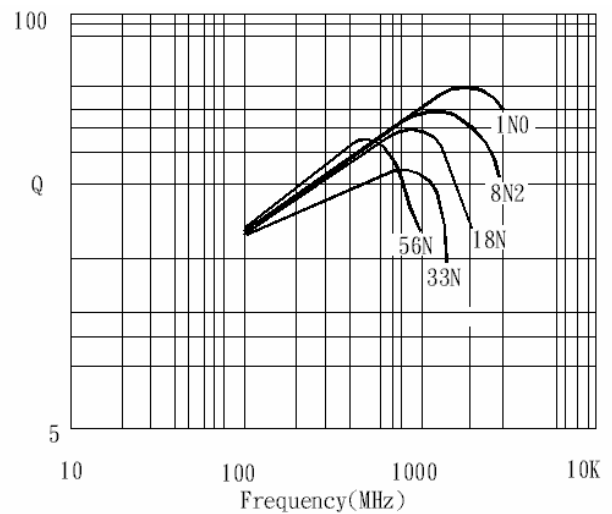
Electrical Characteristics 電氣特性

Size (尺寸): 1005 (0402)

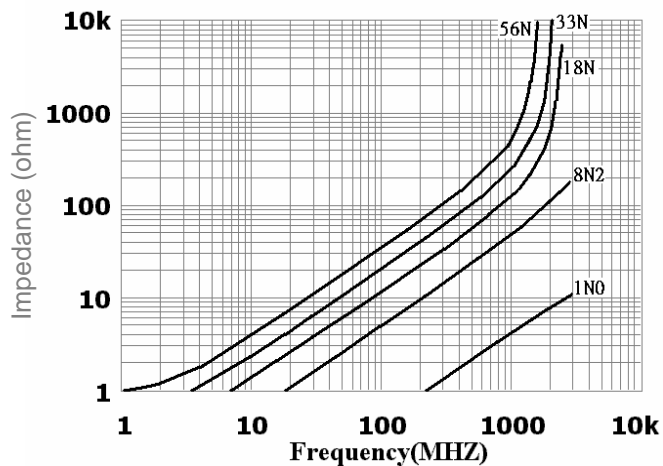
## INDUCTANCE vs. FREQUENCY



## Q vs. FREQUENCY



## IMPEDANCE vs. FREQUENCY



# Multilayer Ceramic Chip Inductor

## 積層式陶瓷晶片電感

### HBLS Series for High Frequency

HBLS 系列適用於高頻率產品

#### Electrical Characteristics 電氣特性

Part Number 產品料號	Inductance 感值 (nH) Tolerance 公差	Q 品質 係數 Min.	Test Frequency 測試頻率 (MHz)	Self-resonant Frequency 共振頻率 (GHz) Min.	DC Resistance 直流電阻 (Ω) Max.	Rated Current 額定電流 (mA) Max.	Thickness 厚度 (mm)
HBLS1608-1N0S	1.0±0.3nH	8	100	10	0.05	300	0.8±0.15
HBLS1608-1N2S	1.2±0.3nH	8	100	10	0.05	300	0.8±0.15
HBLS1608-1N5S	1.5±0.3nH	8	100	6.0	0.10	300	0.8±0.15
HBLS1608-1N8S	1.8±0.3nH	8	100	6.0	0.10	300	0.8±0.15
HBLS1608-2N2S	2.2±0.3nH	8	100	6.0	0.10	300	0.8±0.15
HBLS1608-2N7S	2.7±0.3nH	10	100	6.0	0.10	300	0.8±0.15
HBLS1608-3N3S	3.3±0.3nH	10	100	6.0	0.12	300	0.8±0.15
HBLS1608-3N9S	3.9±0.3nH	10	100	6.0	0.14	300	0.8±0.15
HBLS1608-4N7S	4.7±0.3nH	10	100	4.0	0.16	300	0.8±0.15
HBLS1608-5N6S	5.6±0.3nH	10	100	4.0	0.18	300	0.8±0.15
HBLS1608-6N8J	6.8±5%	10	100	4.0	0.22	300	0.8±0.15
HBLS1608-8N2J	8.2±5%	10	100	3.5	0.24	300	0.8±0.15
HBLS1608-10NJ	10±5%	12	100	3.4	0.26	300	0.8±0.15
HBLS1608-12NJ	12±5%	12	100	2.6	0.28	300	0.8±0.15
HBLS1608-15NJ	15±5%	12	100	2.3	0.32	300	0.8±0.15
HBLS1608-18NJ	18±5%	12	100	2.0	0.35	300	0.8±0.15
HBLS1608-22NJ	22±5%	12	100	1.6	0.40	300	0.8±0.15
HBLS1608-27NJ	27±5%	12	100	1.4	0.45	300	0.8±0.15
HBLS1608-33NJ	33±5%	12	100	1.2	0.55	300	0.8±0.15
HBLS1608-39NJ	39±5%	12	100	1.1	0.60	300	0.8±0.15
HBLS1608-47NJ	47±5%	12	100	0.9	0.70	300	0.8±0.15
HBLS1608-56NJ	56±5%	12	100	0.9	0.75	300	0.8±0.15
HBLS1608-68NJ	68±5%	12	100	0.7	0.85	300	0.8±0.15
HBLS1608-82NJ	82±5%	12	100	0.6	0.95	300	0.8±0.15

\* TEST EQUIPMENT: E4991A IMPEDANCE ANALYZER

量測儀器：E4991A 阻抗分析儀

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HBLS1608-R10J	100 $\pm$ 5%	12	100	0.6	1.00	300	0.8 $\pm$ 0.15
HBLS1608-R12J	120 $\pm$ 5%	8	50	0.5	1.20	300	0.8 $\pm$ 0.15
HBLS1608-R15J	150 $\pm$ 5%	8	50	0.5	1.20	300	0.8 $\pm$ 0.15
HBLS1608-R18J	180 $\pm$ 5%	8	50	0.4	1.30	300	0.8 $\pm$ 0.15
HBLS1608-R22J	220 $\pm$ 5%	8	50	0.4	1.50	300	0.8 $\pm$ 0.15

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量測儀器：E4991A 阻抗分析儀

# Multilayer Ceramic Chip Inductor

積層式陶瓷晶片電感

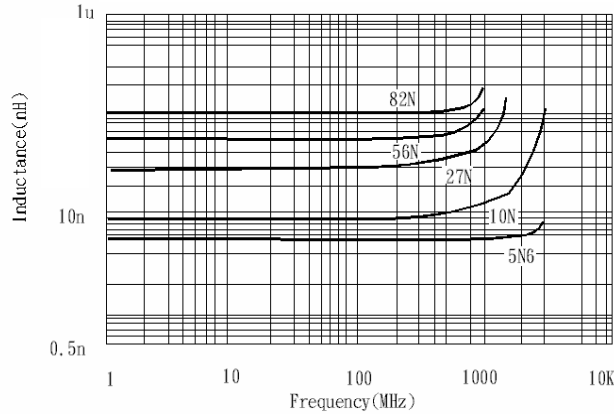
HBL5 Series for High Frequency

HBL5 系列適用於高頻率產品

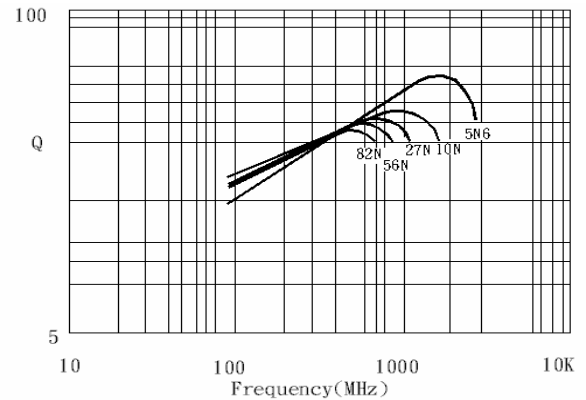
Electrical Characteristics 電氣特性

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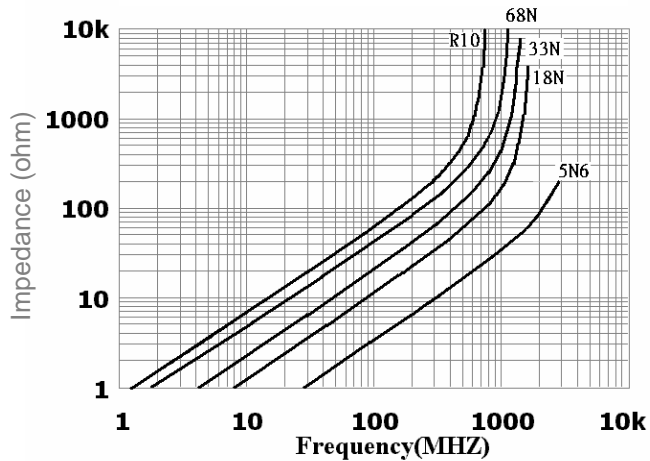
## INDUCTANCE vs. FREQUENCY



## Q vs. FREQUENCY



## IMPEDANCE vs. FREQUENCY





# Multilayer Ceramic Chip Inductor

## 積層式陶瓷晶片電感

### HBLS Series for High Frequency

HBLS 系列適用於高頻率產品

#### Electrical Characteristics 電氣特性

Part Number 產品料號	Inductance 感值 (nH) Tolerance 公差	Q 品質 係數 Min.	Test Frequency 測試頻率 (MHz)	Self-resonant Frequency 共振頻率 (GHz) Min.	DC Resistance 直流電阻 ( $\Omega$ ) Max.	Rated Current 額定電流 (mA) Max.	Thickness 厚度 (mm)
HBLS2012-1N0S	1.0 $\pm$ 0.3nH	10	100	10	0.10	300	0.85 $\pm$ 0.2
HBLS2012-1N2S	1.2 $\pm$ 0.3nH	10	100	10	0.10	300	0.85 $\pm$ 0.2
HBLS2012-1N5S	1.5 $\pm$ 0.3nH	10	100	4.0	0.10	300	0.85 $\pm$ 0.2
HBLS2012-1N8S	1.8 $\pm$ 0.3nH	10	100	4.0	0.10	300	0.85 $\pm$ 0.2
HBLS2012-2N2S	2.2 $\pm$ 0.3nH	10	100	4.0	0.10	300	0.85 $\pm$ 0.2
HBLS2012-2N7S	2.7 $\pm$ 0.3nH	12	100	4.0	0.10	300	0.85 $\pm$ 0.2
HBLS2012-3N3S	3.3 $\pm$ 0.3nH	12	100	4.0	0.13	300	0.85 $\pm$ 0.2
HBLS2012-3N9S	3.9 $\pm$ 0.3nH	12	100	4.0	0.15	300	0.85 $\pm$ 0.2
HBLS2012-4N7S	4.7 $\pm$ 0.3nH	12	100	3.5	0.20	300	0.85 $\pm$ 0.2
HBLS2012-5N6S	5.6 $\pm$ 0.3nH	15	100	3.2	0.23	300	0.85 $\pm$ 0.2
HBLS2012-6N8J	6.8 $\pm$ 5%	15	100	2.8	0.25	300	0.85 $\pm$ 0.2
HBLS2012-8N2J	8.2 $\pm$ 5%	15	100	2.4	0.28	300	0.85 $\pm$ 0.2
HBLS2012-10NJ	10 $\pm$ 5%	15	100	2.1	0.30	300	0.85 $\pm$ 0.2
HBLS2012-12NJ	12 $\pm$ 5%	15	100	1.9	0.35	300	0.85 $\pm$ 0.2
HBLS2012-15NJ	15 $\pm$ 5%	15	100	1.6	0.40	300	0.85 $\pm$ 0.2
HBLS2012-18NJ	18 $\pm$ 5%	15	100	1.5	0.45	300	0.85 $\pm$ 0.2
HBLS2012-22NJ	22 $\pm$ 5%	18	100	1.4	0.50	300	0.85 $\pm$ 0.2
HBLS2012-27NJ	27 $\pm$ 5%	18	100	1.3	0.55	300	0.85 $\pm$ 0.2
HBLS2012-33NJ	33 $\pm$ 5%	18	100	1.2	0.60	300	0.85 $\pm$ 0.2
HBLS2012-39NJ	39 $\pm$ 5%	18	100	1.0	0.65	300	0.85 $\pm$ 0.2
HBLS2012-47NJ	47 $\pm$ 5%	18	100	0.9	0.70	300	0.85 $\pm$ 0.2
HBLS2012-56NJ	56 $\pm$ 5%	18	100	0.8	0.75	300	0.85 $\pm$ 0.2
HBLS2012-68NJ	68 $\pm$ 5%	18	100	0.7	0.80	300	0.85 $\pm$ 0.2
HBLS2012-82NJ	82 $\pm$ 5%	18	100	0.6	0.90	300	0.85 $\pm$ 0.2

\* TEST EQUIPMENT: E4991A IMPEDANCE ANALYZER

量測儀器：E4991A 阻抗分析儀

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HBLS2012-R10J	100 $\pm$ 5%	18	100	0.6	0.90	300	0.85 $\pm$ 0.2
HBLS2012-R12J	120 $\pm$ 5%	13	50	0.5	0.95	300	0.85 $\pm$ 0.2
HBLS2012-R15J	150 $\pm$ 5%	13	50	0.5	1.00	300	1.25 $\pm$ 0.2
HBLS2012-R18J	180 $\pm$ 5%	13	50	0.4	1.10	300	1.25 $\pm$ 0.2
HBLS2012-R22J	220 $\pm$ 5%	12	50	0.35	1.20	300	1.25 $\pm$ 0.2
HBLS2012-R27J	270 $\pm$ 5%	12	50	0.3	1.30	300	1.25 $\pm$ 0.2
HBLS2012-R33J	330 $\pm$ 5%	12	50	0.25	1.40	300	1.25 $\pm$ 0.2
HBLS2012-R39J	390 $\pm$ 5%	10	50	0.25	1.40	300	1.25 $\pm$ 0.2
HBLS2012-R47J	470 $\pm$ 5%	10	50	0.20	4.00	200	1.25 $\pm$ 0.2
HBLS2012-R56J	560 $\pm$ 5%	10	25	0.18	5.00	50	1.25 $\pm$ 0.2
HBLS2012-R68J	680 $\pm$ 5%	10	25	0.16	5.50	50	1.25 $\pm$ 0.2

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量測儀器：E4991A 阻抗分析儀

# Multilayer Ceramic Chip Inductor

積層式陶瓷晶片電感

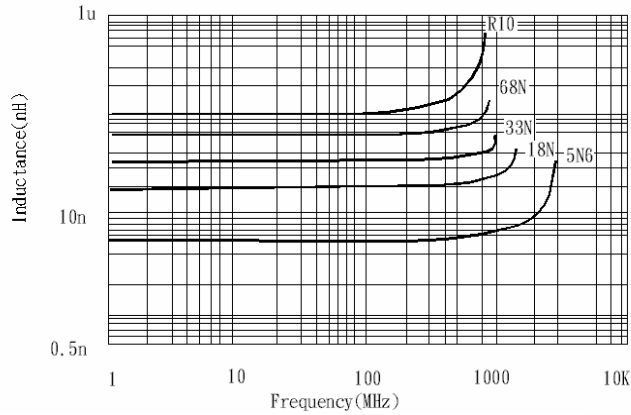
HBLS Series for High Frequency

HBLS 系列適用於高頻率產品

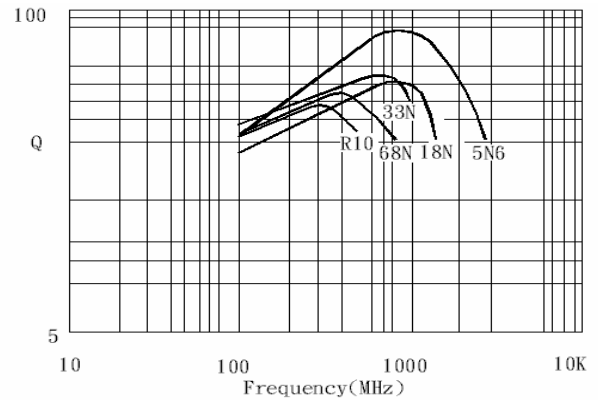
Electrical Characteristics 電氣特性

Size (尺寸): 2012 (0805)

## INDUCTANCE vs. FREQUENCY



## Q vs. FREQUENCY



## IMPEDANCE vs. FREQUENCY

