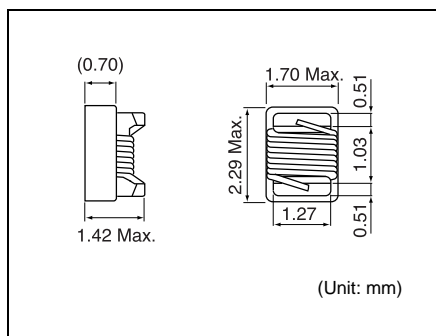
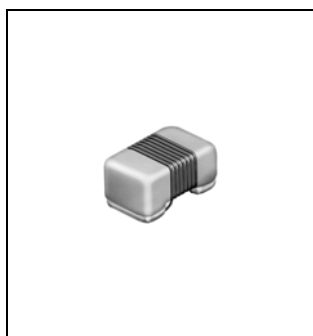
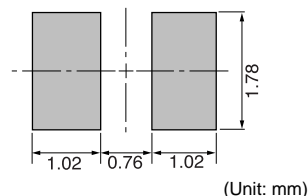


## LLQ2012 Series

Inductance Range: 3.0~820nH



### Recommended patterns 推荐焊盘尺寸



### FEATURES 特点

- High frequency surface-mounted wire-wound type small chip inductors (Size: 2.29×1.70mm Max square, 1.42Max height.).
- The wire is wound directly on the ceramic core at a precision pitch, realizing high-Q, self-resonant frequency characteristics with little random variation.
- Wide inductance range, and tight tolerance of  $\pm 2\%$  of the inductance value.
- The top face is coated with resin, enabling the inductor to be held firmly when being mounted.
- RoHS compliant.

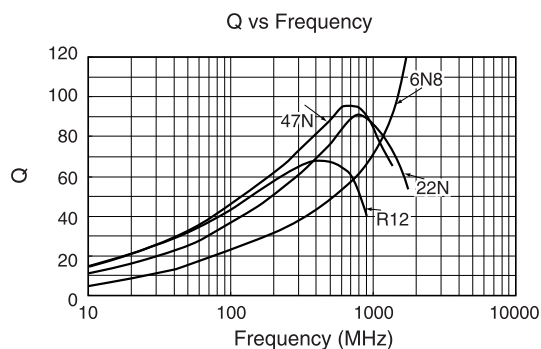
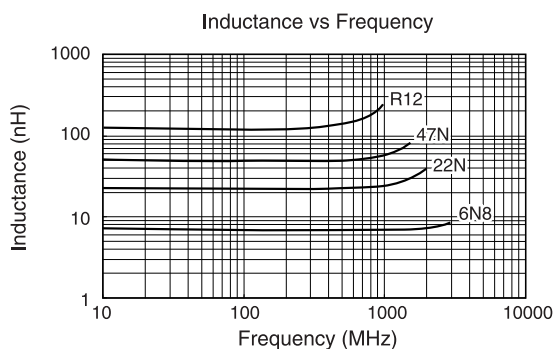
- 高频率表面贴装绕线小型电感器。  
(尺寸: 最大2.29×1.70毫米的平面、最高1.42毫米。)
- 线圈直接绕在瓷芯上, 有一个精确间距, 实现高Q值, 很小的随机变化的自振频率。
- 宽泛的电感值范围, 电感值限制在公差2%。
- 顶部覆盖树脂使电感器稳固安置。
- 符合RoHS指令。

### ELECTRICAL CHARACTERISTICS 电气特性

- Inductance Range 3.0~820nH
- Inductance Tolerance G ;  $\pm 2\%$  (8.2~390nH)  
J ;  $\pm 5\%$  (3.0~820nH)  
K ;  $\pm 10\%$  (3.0~820nH)
- S.R.F.(for reference only) 200~8,000MHz
- Rated DC current 180~800mA
- Operating Temperature Range -40°C~+125°C
- Storage Temperature Range -40°C~+125°C  
(In case of taping used) (0°C~+60°C)

- 电感值范围 3.0~820nH
- 电感值公差 G;  $\pm 2\%$  (8.2~390nH)  
J;  $\pm 5\%$  (3.0~820nH)  
K;  $\pm 10\%$  (3.0~820nH)
- 自谐振频率(参考值) 200~8,000MHz
- 额定直流电流 180~800mA
- 工作温度范围 -40°C~+125°C
- 储存温度范围 -40°C~+125°C  
(使用编带包装时) (0°C~+60°C)

### EXAMPLES OF CHARACTERISTICS 特性范例



continued from previous page 接上页

### TOKO STANDARD PART NUMBERS 东光标准零件号码

#### TYPE LLQ2012 Series (Quantity/reel; 3,000 PCS)

东光零件号码	电感值 <sup>(1)</sup>	公差	电感值测试频率	最小Q <sup>(1)</sup>	Q测试频率	最小自谐振频率 <sup>(2)</sup>	最大直流电阻 <sup>(3)</sup>	最大额定直流电流 <sup>(4)</sup>
TOKO part number	Inductance <sup>(1)</sup> Lo (nH)	Tolerance	Inductance Test Frequency (MHz)	Q <sup>(1)</sup> Min.	Q Test Frequency (MHz)	S.R.F. <sup>(2)</sup> (MHz) Min.	R <sub>DC</sub> <sup>(3)</sup> (Ω) Max.	Rated DC Current <sup>(4)</sup> (mA) Max.
LLQ2012-F3N0□	3.0	J,K	250	65	1500	7900	0.06	800
LLQ2012-F5N6□	5.6	J,K	250	65	1000	5500	0.08	600
LLQ2012-F6N8□	6.8	J,K	250	50	1000	5500	0.11	600
LLQ2012-F7N5□	7.5	J,K	250	50	1000	4500	0.14	600
LLQ2012-F8N2□	8.2	G,J,K	250	50	1000	4700	0.12	600
LLQ2012-F10N□	10	G,J,K	250	60	500	4200	0.10	600
LLQ2012-F12N□	12	G,J,K	250	50	500	4000	0.15	600
LLQ2012-F15N□	15	G,J,K	250	50	500	3400	0.17	600
LLQ2012-F18N□	18	G,J,K	250	50	500	3300	0.20	600
LLQ2012-F22N□	22	G,J,K	250	55	500	2600	0.22	500
LLQ2012-F24N□	24	G,J,K	250	50	500	2000	0.22	500
LLQ2012-F27N□	27	G,J,K	250	55	500	2500	0.25	500
LLQ2012-F33N□	33	G,J,K	250	60	500	2050	0.27	500
LLQ2012-F36N□	36	G,J,K	250	55	500	2000	0.27	500
LLQ2012-F39N□	39	G,J,K	250	60	500	1700	0.29	500
LLQ2012-F43N□	43	G,J,K	200	60	500	1650	0.34	500
LLQ2012-F47N□	47	G,J,K	200	60	500	1650	0.31	500
LLQ2012-F56N□	56	G,J,K	200	60	500	1550	0.34	500
LLQ2012-F68N□	68	G,J,K	200	60	500	1450	0.38	500
LLQ2012-F82N□	82	G,J,K	150	65	500	1300	0.42	400
LLQ2012-F91N□	91	G,J,K	150	65	500	1200	0.48	400
LLQ2012-FR10□	100	G,J,K	150	65	500	1200	0.46	400
LLQ2012-FR11□	110	G,J,K	150	50	250	1000	0.48	400
LLQ2012-FR12□	120	G,J,K	150	50	250	1100	0.51	400
LLQ2012-FR15□	150	G,J,K	100	50	250	920	0.56	400
LLQ2012-FR18□	180	G,J,K	100	50	250	870	0.64	400
LLQ2012-FR22□	220	G,J,K	100	50	250	850	0.70	400
LLQ2012-FR24□	240	G,J,K	100	44	250	690	1.00	350
LLQ2012-FR27□	270	G,J,K	100	48	250	650	1.00	350
LLQ2012-FR33□	330	G,J,K	100	48	250	600	1.40	310
LLQ2012-FR39□	390	G,J,K	100	48	250	560	1.50	290
LLQ2012-FR47□	470	J,K	50	33	100	375	1.76	250
LLQ2012-FR56□	560	J,K	25	23	50	340	1.90	230
LLQ2012-FR68□	680	J,K	25	23	50	188	2.20	190
LLQ2012-FR82□	820	J,K	25	23	50	215	2.35	180

Add the tolerance of inductance to within the □ of the part Number as follows: G=±2%, J=±5%, K=±10%

□添加电感值公差至品名如：G=±2%，J=±5%，K=±10%

- (1) Inductance and Q is measured with a RF LCR meter 4287A (Agilent Technologies) or equivalent.
- (2) Self resonant frequency is measured with a network analyzer 8720ES (Agilent Technologies) or equivalent.
- (3) DC resistance is measured with a micro ohm meter 34420A (Agilent Technologies) or equivalent.
- (4) Rated DC current is coil temperature to rise by 20°C. (Reference ambient temperature 20°C)

- (1) 使用LCR仪表4287A (Agilent 技术) 或者功能相同的仪器测量电感值和Q值。
- (2) 使用网络分析仪8720ES(Agilent 技术) 或者功能相同的工具测量自谐振频率。
- (3) 使用微欧姆表34420A(Agilent 技术)或者功能相同的工具测量直流电阻。
- (4) 额定直流电流是线圈温度上升20°C。(参考周围环境温度20°C)