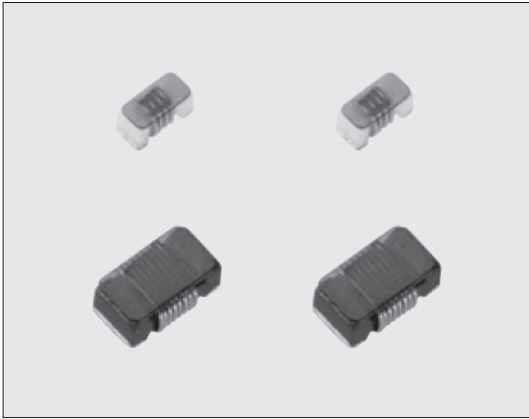


AIR CORE INDUCTORS



KQC 空芯片式电感器 (高Q值/高电流型) Air-Core Chip Inductors (High Q/High Current type)



外观颜色：白色 Body color : White (0402,0403)
 : 黑色 : Black (0603)

特点 Features

- 比起本公司原有品种，直流电阻小，允许电流大。
- 比起本公司原有品种，高Q值型。
- 对应回流焊接。
- 符合欧盟RoHS。
- Lower DC resistance and higher allowable DC current than the existing model.
- High Q than the existing model.
- Suitable for reflow soldering.
- Products meet EU-RoHS requirements.

用途 Applications

- 移动通信设备的终端、基站的高频电路和功率放大器电路。
- 对移动通信设备需要高Q的电路适用。
- Terminals of mobile communication equipment etc. and high frequency and power amp. circuits.
- Suitable for circuits that need high Q of mobile communication equipment.

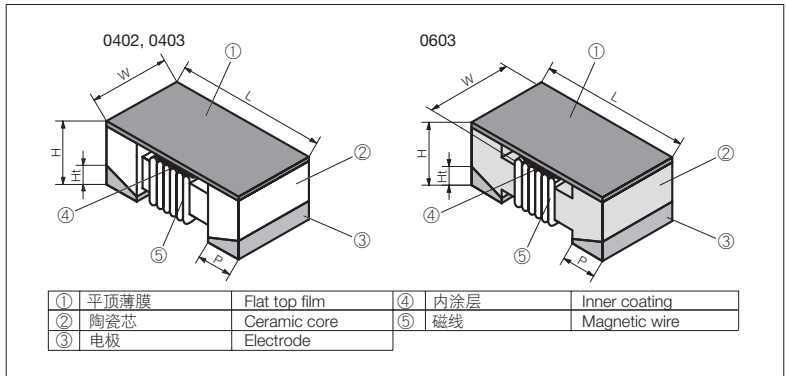
性能 Performance

试验项目 Test Items	标准值 Performance Requirements Maximum $\Delta L/L$ Maximum $\Delta Q/Q$		试验方法 Test Methods
	保证值 Limit	代表值 Typical	
耐焊接热 Resistance to soldering heat	$\Delta L/L: \pm 5\%$, $\Delta Q/Q: \pm 10\%$ 外观应无显著异常。 Without distinct damage in appearance.	$\Delta L/L: \pm 1.2\%$ $\Delta Q/Q: \pm 2.7\%$	260°C $\pm 5^\circ\text{C}$, 10s $\pm 1\text{s}$
温度突变 Rapid change of temperature	$\Delta L/L: \pm 5\%$, $\Delta Q/Q: \pm 10\%$ 外观应无显著异常。 Without distinct damage in appearance.	$\Delta L/L: \pm 1.9\%$ $\Delta Q/Q: \pm 3.9\%$	-40°C (30min.) / +125°C (30min.) 100 cycles
低温放置 Low temperature exposure	$\Delta L/L: \pm 5\%$, $\Delta Q/Q: \pm 10\%$ 外观应无显著异常。 Without distinct damage in appearance.	$\Delta L/L: \pm 2.0\%$ $\Delta Q/Q: \pm 4.1\%$	-40°C $\pm 2^\circ\text{C}$, 1000h
高温放置 High temperature exposure	$\Delta L/L: \pm 5\%$, $\Delta Q/Q: \pm 10\%$ 外观应无显著异常。 Without distinct damage in appearance.	$\Delta L/L: \pm 1.8\%$ $\Delta Q/Q: \pm 3.3\%$	125°C $\pm 2^\circ\text{C}$, 1000h
耐湿性 Moisture endurance	$\Delta L/L: \pm 5\%$, $\Delta Q/Q: \pm 10\%$ 外观应无显著异常。 Without distinct damage in appearance.	$\Delta L/L: \pm 1.7\%$ $\Delta Q/Q: \pm 3.3\%$	40°C $\pm 2^\circ\text{C}$, 90%~95%RH, 1000h
耐溶剂性 Resistance to solvent	应无表示消失等异常。 No damage and marking shall remain legible.	-	MIL-STD-202F试验法215 Accordance with MIL-STD 202F Method 215

使用注意事项 Precautions for Use

- 由于焊盘图案的大小对Q值会产生影响，因此，应在事前在实际设备上确认其特性。
- The pattern size of pad may affect Q values, so confirm the characteristics beforehand by actual machines.

结构图 Construction



外形尺寸 Dimensions

型号 Type	尺寸 Dimensions (mm)						Weight (g) (1000pcs)
	L ± 0.1	W	H ± 0.1	Ht	P ± 0.1		
KQC0402	1.0	0.5 ± 0.1	0.55	0.15 ± 0.10	0.2		1
KQC0603	1.6	1.05 ± 0.2	0.7	0.20 ± 0.15	0.37		5

品名构成 Type Designation

实例 Example	品种 Product Code	形状 Style	端子表面材质 Terminal Surface Material	二次加工 Taping	公称电感 Nominal Inductance	L值允许偏差 Inductance Tolerance
KQC	0603	T	TE	12N	J	
	0402: 1.0x0.5mm 0603: 1.6x1.0mm	T: Sn	TP: 2mm pitch paper(0402) TD: 4mm pitch paper(0402) TE: 4mm pitch plastic embossed (0603) BK: Bulk	3 digits	B: $\pm 0.1\text{nH}$ C: $\pm 0.2\text{nH}$ G: $\pm 2\%$ J: $\pm 5\%$	

欲知关于此产品含有的环境负荷物质详情(除EU-RoHS以外)，请与我们联系。
编带细节请参考卷末附录C。

Contact us when you have control request for environmental hazardous material other than the substance specified by EU-RoHS.

For further information on taping, please refer to APPENDIX C on the back pages.

■ 额定值 Ratings

使用温度范围 Operating temperature range: $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$ (包含自身的温升。Self-heating is included.)

※线圈绕组部分的温度(环境温度+自身发热)须在工作温度上限($+125^{\circ}\text{C}$)以下。

※That the operating temperature upper limit temperature of the coil winding portions (ambient temperature + self-heating) is ($+125^{\circ}\text{C}$) or less.

编带符号和包装数量/卷 Taping code and Q'ty/Reel: 0402: TP (10,000pcs) • TD (2,000pcs) , 0603: TE (2,000pcs)

型号 Type	公称电感 Nominal Inductance (nH)	L测定频率 L Measuring Frequency (MHz)	电感允许偏差 Inductance Tolerance	Q值 Quality Factor Min.	Q测定频率 Q Measuring Frequency (MHz)	自共振频率 Self Resonant Frequency (GHz)	直流电阻 DC Resistance (Ω) Max.	容许直流电流 Allowable DC Current (A) Max.	
KQC0402T□1N4B	1.4	250	B: $\pm 0.1\text{nH}$	25	250	11.0	0.019	1.40	
KQC0402T□1N5B	1.5					10.0			
KQC0402T□1N6B	1.6					9.6			
KQC0402T□1N7B	1.7					8.5			
KQC0402T□2N5C	2.5					8.0			
KQC0402T□2N7C	2.7					7.2			
KQC0402T□3N0C	3.0		C: $\pm 0.2\text{nH}$	29		6.6	0.028	1.20	
KQC0402T□3N3C	3.3					7.3			
KQC0402T□3N9C	3.9					7.0			
KQC0402T□4N3C	4.3					6.6			
KQC0402T□4N7C	4.7					5.6			
KQC0402T□6N2C	6.2					5.6			
KQC0603 TTE 1N2J	1.2	250	J: $\pm 5\%$	18	250	6.0	0.020	2.25	
KQC0603 TTE 2N7J	2.7					0.025	2.00		
KQC0603 TTE 4N7J	4.7					0.035	1.80		
KQC0603 TTE 5N6J	5.6								
KQC0603 TTE 7N5J	7.5								
KQC0603 TTE 8N2J	8.2					4.0	0.045	1.50	
KQC0603 TTE 10N□	10					35	3.0	0.065	1.25
KQC0603 TTE 12N□	12							0.055	1.40
KQC0603 TTE 15N□	15							0.065	1.25
KQC0603 TTE 18N□	18		2.5	0.090				1.20	
KQC0603 TTE 22N□	22			0.100				1.10	
KQC0603 TTE 27N□	27			0.120				1.00	

在型号□中应放入编带符号。请在品名构成栏中确认。

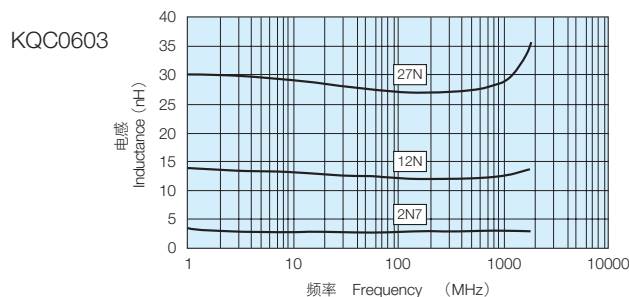
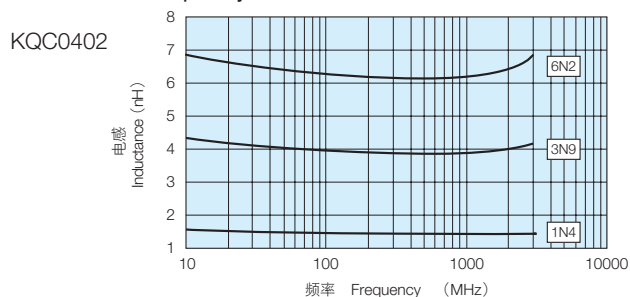
The codes for taping enter □. Please confirm the column of type designation.

型号中□放入电感允许偏差符号(G, J)。 The code for inductance tolerance (G, J) enters □.

■ 特性 Characteristics

测定器 Test equipment: Agilent 4991A Impedance analyzer (KQC0402)
Agilent 4291A Impedance analyzer (KQC0603)

L-特性 L – Frequency Characteristics



Q-特性 Q – Frequency Characteristics

