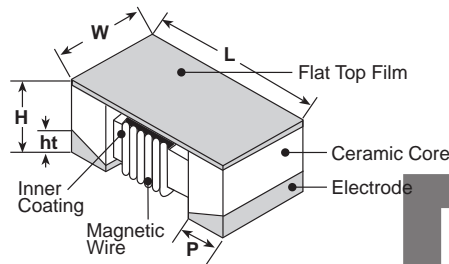


**features**

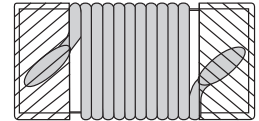
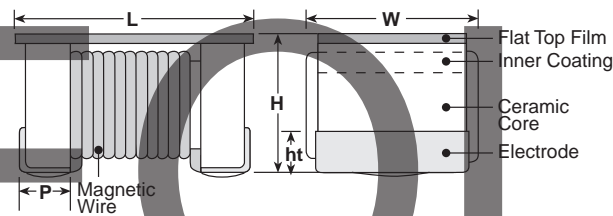
- Low DC resistance and high allowable DC current
- Low profile style 0.027 inches (0.7mm) typical
- Suitable for reflow soldering
- Products with lead-free terminations meet EU RoHS requirements

**dimensions and construction**

0402, 0603

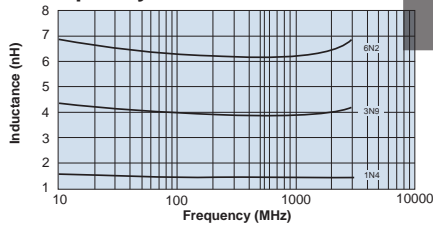


0603

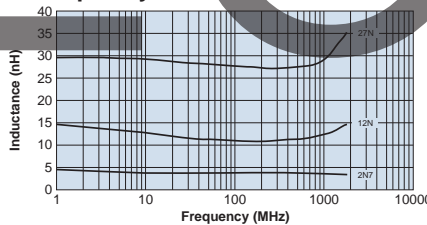


Size Code	Dimensions inches (mm)				
	L	W	H	Ht	P
0402	.039±.004 (1.0±0.1)	.020±.004 (0.5±0.1)	.022±.004 (0.55±0.1)	.006±.004 (0.15±0.1)	.008±.004 (0.2±0.1)
0603	.063±.004 (1.6±0.1)	.041±.008 (1.05±0.2)	.028±.004 (0.7±0.1)	.008±.006 (0.2±0.15)	.015±.004 (0.37±0.1)

**L-Frequency Characteristics - 0402**

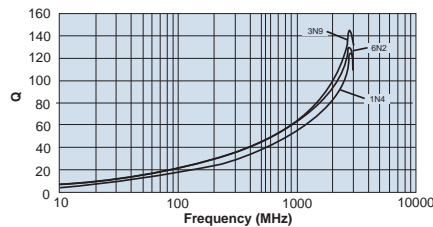


**L-Frequency Characteristics - 0603**

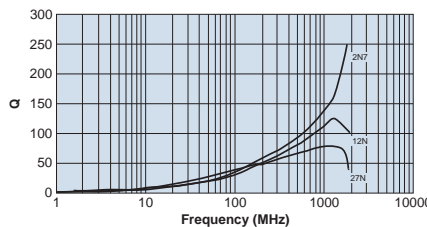


Test equipment:  
Agilent 4991 A Impedance analyzer (KQC0402)  
Agilent 4291 A Impedance analyzer (KQC0603)

**Q-Frequency Characteristics - 0402**



**Q-Frequency Characteristics - 0603**



**ordering information**

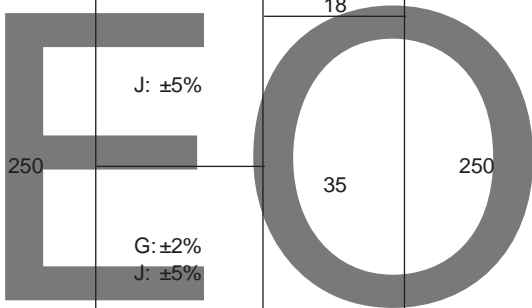
<b>KQC</b>	<b>0603</b>	<b>T</b>	<b>TE</b>	<b>12N</b>	<b>J</b>
Type	Size Code	Termination Material	Packaging	Nominal Inductance	Tolerance
	0402 0603	T: Sn	TP: 2mm pitch paper (0402: 10,000 pieces/reel) TE: 4mm pitch embossed plastic (0603: 2,000 pieces/reel) TD: 4mm pitch paper (0402: 2,000 pieces/reel)	3 digits 10N: 10nH 1N2: 1.2nH	B: ±0.1nH C: ±0.2nH G: ±2% J: ±5%

For further information on packaging, please refer to Appendix A.

Specifications given herein may be changed at any time without prior notice. Please confirm technical specifications before you order and/or use.

11/30/17

## applications and ratings

Part Designation	Nominal Inductance (nH)	L Measuring Frequency	Inductance Tolerance	Q Quality Factor Minimum	Q Measuring Frequency (MHz)	Self Resonant Frequency Minimum (GHz)	DC Resistance Maximum (Ω)	Allowable DC Current Maximum (A)			
KQC0402T**1N4*	1.4	250	B: ±0.1nH	25	250	11.0	0.019	1.40			
KQC0402T**1N5*	1.5					10.0					
KQC0402T**1N6*	1.6					9.6					
KQC0402T**1N7*	1.7					8.5					
KQC0402T**2N5*	2.5		C: ±0.2nH	27		8.0	0.028	1.20			
KQC0402T**2N7*	2.7					7.2					
KQC0402T**3N0*	3.0					6.6					
KQC0402T**3N3*	3.3					7.3					
KQC0402T**3N9*	3.9					7.0					
KQC0402T**4N3*	4.3					30			6.6	0.036	1.00
KQC0402T**4N7*	4.7		5.6								
KQC0402T**6N2*	6.2		5.6	0.045			0.90				
KQC0603TTE1N2*	1.2			J: ±5%			18	250	6.0		
KQC0603TTE2N7*	2.7					0.025			2.00		
KQC0603TTE4N7*	4.7	0.035			1.80						
KQC0603TTE5N6*	5.6	5.5			0.045	1.50					
KQC0603TTE7N5*	7.5	4.0									
KQC0603TTE8N2*	8.2	3.0			0.065	1.25					
KQC0603TTE10N*	10				0.055	1.40					
KQC0603TTE12N*	12				0.065	1.25					
KQC0603TTE15N*	15				0.090	1.20					
KQC0603TTE18N*	18	2.5			0.100	1.10					
KQC0603TTE22N*	22				0.120	1.00					
KQC0603TTE27N*	27										

\* Add tolerance character (B, C, J, G)      \*\* Add packaging character (TD, TP)  
 Operating Temperature Range: -40°C ~ +125°C  
 The operating temperature range of the coil (ambient temperature + self heating) must remain at +125°C or less

## environmental applications

### Performance Characteristics

Parameter	Requirements Maximum Δ L/L Δ Q/Q	Limit	Typical	Test Method
Resistance to Soldering Heat	No significant abnormality in appearance Δ L/L: ±5%, Δ Q/Q: ±10%	Δ L/L: ±1.2% Δ Q/Q: ±2.7%	260°C ± 5°C, 10s ± 1s	
Rapid Change of Temperature	No significant abnormality in appearance Δ L/L: ±5%, Δ Q/Q: ±10%	Δ L/L: ±1.9% Δ Q/Q: ±3.9%	-40°C (30min.) / +125°C (30min.) 100 cycles	
Low Temperature Exposure	No significant abnormality in appearance Δ L/L: ±5%, Δ Q/Q: ±10%	Δ L/L: ±2.0% Δ Q/Q: ±4.1%	-40°C ± 2°C, 1000h	
High Temperature Exposure	No significant abnormality in appearance Δ L/L: ±5%, Δ Q/Q: ±10%	Δ L/L: ±1.8% Δ Q/Q: ±3.3%	125°C ± 2°C, 1000h	
Moisture Exposure	No significant abnormality in appearance Δ L/L: ±5%, Δ Q/Q: ±10%	Δ L/L: ±1.7% Δ Q/Q: ±3.3%	40°C ± 2°C, 90%~95%RH, 1000h	
Resistance to Solvent	No damage and marking shall remain legible	—	Accordance with MIL-STD 202F Method 215	