

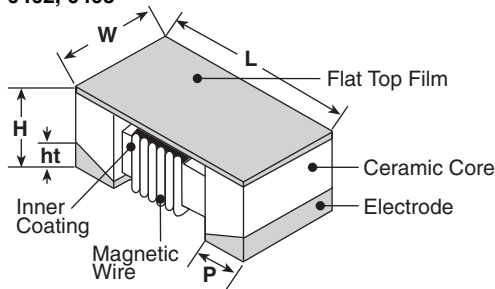
### features

- Low DC resistance and high allowable DC current
- Low profile style 0.027 inches (0.7mm) typical
- Suitable for reflow soldering
- Marking: KQC0603: Black body color with no marking  
KQC0402: White body color with no marking
- Products with lead-free terminations meet EU RoHS requirements

Inductors

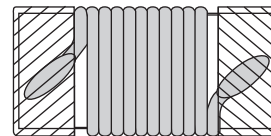
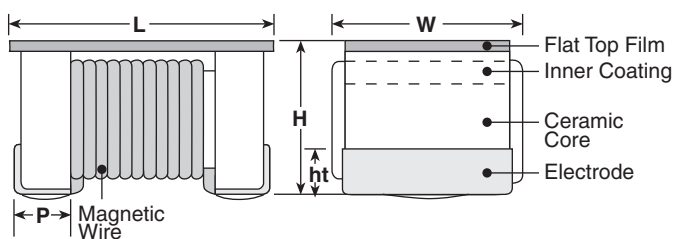
### dimensions and construction

0402, 0403



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)

0603



### ordering information

New Part #	KQC	0603	T	TE	12N	J
	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.

## 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					8.0					
KQC0402T**2N7*	2.7		C: ±0.2nH	27		7.2	0.028	1.20			
KQC0402T**3N0*	3.0					6.6					
KQC0402T**3N3*	3.3					7.3					
KQC0402T**3N9*	3.9					7.0					
KQC0402T**4N3*	4.3					30			30	6.6	0.036
KQC0402T**4N7*	4.7		5.6								
KQC0402T**6N2*	6.2		0.045	0.90							
KQC0603TTE1N2*	1.2		250	J: ±5%			18	250		0.020	
KQC0603TTE2N7*	2.7	0.025			2.00						
KQC0603TTE4N7*	4.7	5.5			0.035	1.80					
KQC0603TTE5N6*	5.6										
KQC0603TTE7N5*	7.5										
KQC0603TTE8N2*	8.2	4.0			0.045	1.50					
KQC0603TTE10N*	10										
KQC0603TTE12N*	12			3.0			0.065		1.25		
KQC0603TTE15N*	15	0.055			1.40						
KQC0603TTE18N*	18	0.065			1.25						
KQC0603TTE22N*	22	G: ±2% J: ±5%		35	2.5	0.090	1.20				
KQC0603TTE27N*	27					0.100	1.10				
							0.120		1.00		

\* 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

For complete environmental specifications, please refer to [www.koaspeer.com](http://www.koaspeer.com)

## environmental applications

### Performance Characteristics

Parameter	Requirements Maximum Limit	ΔL/L ΔQ/Q 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

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

12/01/14