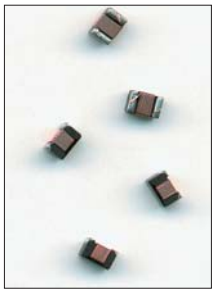
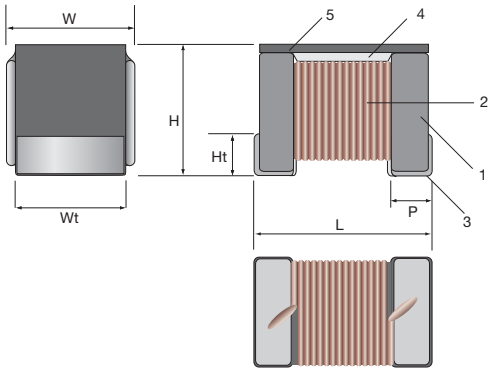
AIR CORE
WIREWOUND CHIP INDUCTOR HIGH CURRENT TYPE KQC





STRUCTURE

1 Ceramic core
2 Winding wire
3 Electrode
4 Inner coat
5 Flat top film

IDENTIFICATION

PRODUCT CODE	BODY COLOR	MARKING
KQC 0402, KQC 0403	White	None
KQC 0603	Black	

All these products have Pb-free terminations and meet RoHS requirements

TYPE DESIGNATION (HOW TO ORDER)

KQC	0603	T	TE	12N	J
PRODUCT CODE	SIZE 0402, 0403, 0603	TERMINATION SURFACE MATERIAL T: Sn	TAPING* TD: 0402 TE: 0403, 0603 BK: Bulk *Please see "PACKAGING"	NOMINAL INDUCTANCE 3 digit code (see rating table)	INDUCTANCE TOLERANCE B: ±0.1nH C: ±0.2nH G: ±2% J: ±5%

FEATURES

- Small chip inductors of air-core (wirewound type)
- Lower DC resistance and higher allowable DC current than the standard KQ-series
- High Q and high self-resonant frequency
- Excellent mountability, solderability and high reliablity
- Flat top suitable for high speed mounting
- Suitable for high-frequency circuits in telecommunication equipment, mobile phones and power amplification circuit
- Operating temperature range: - 40° C ... + 125° C
- Suitable for reflow soldering

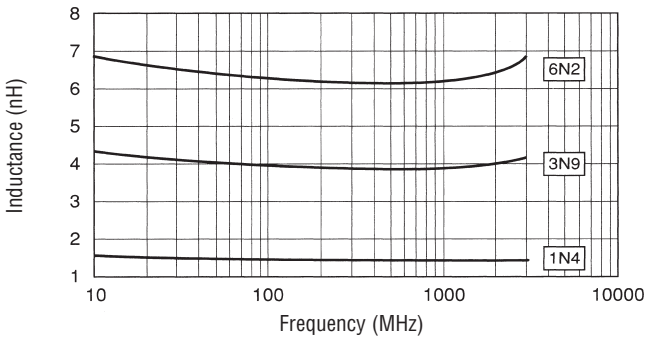
DIMENSIONS (mm)

PRODUCT CODE	L	W	H	Ht	P
KQC 0402	1.0 ± 0.1	0.5 ± 0.1	0.55 ± 0.1	0.15 ± 0.10	0.2 ± 0.1
KQC 0403	1.0 ± 0.1	0.75 ± 0.1	0.80 ± 0.1	0.15 ± 0.10	0.2 ± 0.1
KQC 0603	1.6 ± 0.1	1.05 ± 0.2	0.70 ± 0.1	0.20 ± 0.15	0.37 ± 0.1

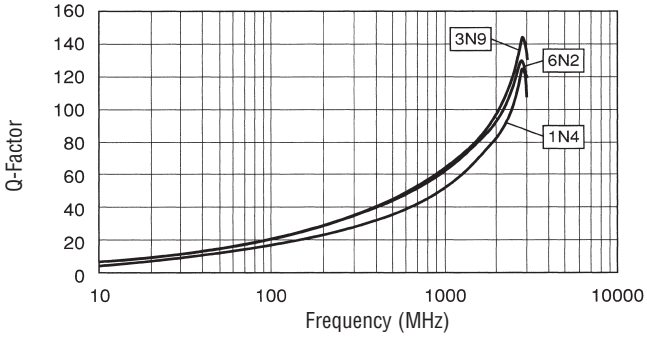
TYPICAL FREQUENCY CHARACTERISTICS

Test equipment: Agilent 4991A impedance analyzer (KQC 0402); Agilent 4291A impedance analyzer (KQC 0603)

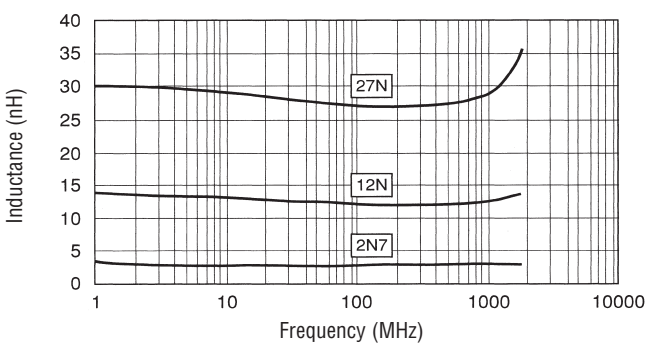
INDUCTANCE vs. FREQUENCY KQC 0402



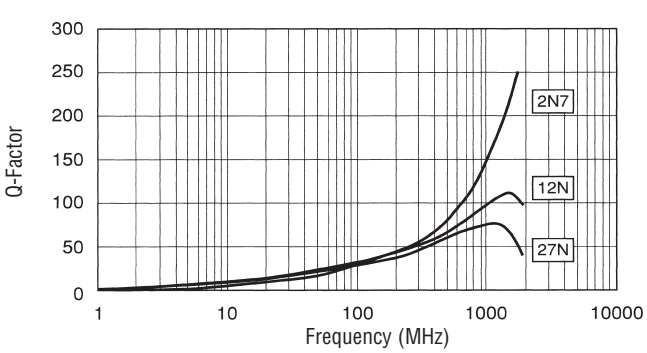
Q-FACTOR vs. FREQUENCY KQC 0402



INDUCTANCE vs. FREQUENCY KQC 0603



Q-FACTOR vs. FREQUENCY KQC 0603



AIR CORE
WIREWOUND
CHIP INDUCTOR
HIGH CURRENT TYPE
KQC

RATING

TYPE	INDUCTANCE			QUALITY FACTOR		SELF-RESONANT FREQUENCY (MIN.)	DC RESISTANCE (MAX.)	ALLOWABLE DC CURRENT (MAX.)
	NOMINAL INDUCTANCE	MEASURING FREQUENCY	TOLERANCE	Q (MIN.)	MEASURING FREQUENCY			
KQC 0402 T TD 1N4 B*	1.4 nH	250 Mhz	B (±0.1 nH)	25	250 MHz	11.0 GHz	0.019 mΩ	1.40 A
KQC 0402 T TD 1N5 B*	1.5 nH							
KQC 0402 T TD 1N6 B*	1.6 nH					10.0 GHz		
KQC 0402 T TD 1N7 B*	1.7 nH					9.6 GHz		
KQC 0402 T TD 2N5 C*	2.5 nH		C (±0.2 nH)	27		8.5 GHz	0.028 mΩ	1.20 A
KQC 0402 T TD 2N7 C*	2.7 nH					8.0 GHz		
KQC 0402 T TD 3N0 C*	3.0 nH					7.2 GHz		
KQC 0402 T TD 3N3 C*	3.3 nH			29		6.6 GHz		
KQC 0402 T TD 3N9 C*	3.9 nH					7.3 GHz	0.036 mΩ	1.00 A
KQC 0402 T TD 4N3 C*	4.3 nH			30		7.0 GHz		
KQC 0402 T TD 4N7 C*	4.7 nH					6.6 GHz		
KQC 0402 T TD 6N2 C*	6.2 nH					5.6 GHz	0.045 mΩ	0.90 A
KQC 0403 T TE 1N0 J*	1.0 nH	250 Mhz	J (±5%)	25	250 MHz	16.0 GHz	0.020 mΩ	1.80 A
KQC 0403 T TE 2N4 J*	2.4 nH					14.0 GHz	0.030 mΩ	1.50 A
KQC 0403 T TE 3N6 J*	3.6 nH			30		10.0 GHz	0.040 mΩ	1.40 A
KQC 0403 T TE 3N9 J*	3.9 nH					8.0 GHz	0.035 mΩ	1.60 A
KQC 0403 T TE 4N3 J*	4.3 nH					6.0 GHz		
KQC 0403 T TE 5N6 J*	5.6 nH					5.8 GHz	0.050 mΩ	1.30 A
KQC 0403 T TE 6N8 J*	6.8 nH			35		5.5 GHz	0.045 mΩ	1.50 A
KQC 0403 T TE 8N5 J*	8.5 nH					5.0 GHz	0.055 mΩ	1.20 A
KQC 0403 T TE 10N J*	10 nH			30		4.5 GHz	0.065 mΩ	1.00 A
KQC 0403 T TE 12N J*	12 nH					4.2 GHz	0.090 mΩ	0.80 A
KQC 0403 T TE 15N J*	15 nH					3.8 GHz	0.100 mΩ	0.50 A
KQC 0403 T TE 18N J*	18 nH					3.5 GHz	0.120 mΩ	0.40 A
KQC 0603 T TE 1N2 J	1.2 nH	250 MHz	J (±5%)	18	250MHz	6.0 GHz	20 mΩ	2.25 A
KQC 0603 T TE 2N7 J	2.7 nH			35			25 mΩ	2.00 A
KQC 0603 T TE 4N7 J	4.7 nH						35 mΩ	1.80 A
KQC 0603 T TE 5N6 J	5.6 nH					5.5 GHz		
KQC 0603 T TE 7N5 J	7.5 nH						45 mΩ	1.50 A
KQC 0603 T TE 8N2 J	8.2 nH					4.0 GHz		
KQC 0603 T TE 10N □	10 nH		G (±2%) J (±5%)			3.0 GHz	65 mΩ	1.25 A
KQC 0603 T TE 12N □	12 nH						55 mΩ	1.40 A
KQC 0603 T TE 15N □	15 nH						65 mΩ	1.25 A
KQC 0603 T TE 18N □	18 nH					2.5 GHz	90 mΩ	1.20 A
KQC 0603 T TE 22N □	22 nH						100 mΩ	1.10 A
KQC 0603 T TE 27N □	27 nH						120 mΩ	1.00 A

□ Enter the code for inductance tolerance (G, J)
* Under development (samples Jan. 2006)

TD: 4mm pitch papaer (0402)
TE: 4mm pitch plastic embossed (0403, 0603)