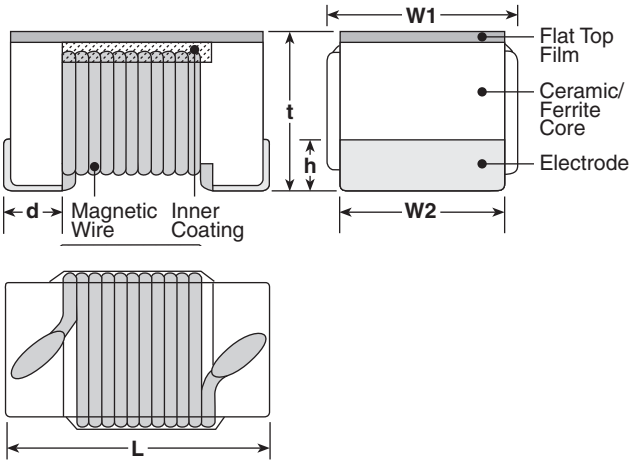
features

- Surface mount
- Operating temperature: -40°C ~ +125°C
- Flat top suitable for high speed pick-and-place components
- Excellent high frequency applications
- High Q factors and self-resonant frequency values
- Marking: White body color with no marking (0402)
  Black body color with white marking (0603, 0805, 1008)
- Products with lead-free terminations meet EU RoHS requirements
- AEC-Q200 Qualified

dimensions and construction



Size Code	Dimensions inches (mm)					
	L	W1	W2	t	h	d
KQT0402	.039±.004 (1.0±0.1)	.02±.004 (0.5±0.1)	.02±.004 (0.5±0.1)	.022±.004 (0.55±0.1)	.006±.004 (0.15±0.1)	.01±.004 (0.25±0.1)
KQ0603	.063±.004 (1.6±0.1)	.039±.004 (1.0±0.1)	.033±.004 (0.85±0.1)	.035±.004 (0.9±0.1)	.01±.006 (0.25±0.15)	.014±.004 (0.35±0.1)
KQ0805	.079±.008 (2.0±0.2)	.059±.008 (1.5±0.2) (3.3nH-390nH) .063±.008 (1.6±0.2) (470nH-820nH)	.053±.004 (1.35±0.1)	.051±.008 (1.3±0.2)	.016±.006 (0.40±0.15)	.018±.004 (0.45±0.1)
KQ1008	.098±.008 (2.5±0.2)	.087±.008 (2.2±0.2)	.079±.004 (2.0±0.1)	.071 $^{+.008}_{-0}$ (1.8 $^{+0.2}_{-0}$)	.018±.006 (0.45±0.15)	.018±.004 (0.45±0.1)

ordering information

New Part #

KQ	1008	T	TE	10N	J
Type	**Size Code**	**Termination Material**	**Packaging**	**Nominal Inductance**	**Tolerance**
KQ KQT	0402 0603 0805 1008	T: Sn	TP: 2mm pitch paper (0402: 10,000 pieces/reel) TD: 7" paper tape (0402: 2,000 pieces/reel) TE: 7" embossed plastic (0603, 0805, 1008: 2,000 pieces/reel)	3 digits: 10N: 10nH R10: 0.1µH 1R0: 1.0µH	B: ±0.1nH C: 0.2nH G: ±2% H: ±3% J: ±5% K: ±10% M: ±20%

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

applications and ratings

Part Designation	Marking	Nominal Inductance (nH)	L Measuring Frequency	Inductance Tolerance	Q Quality Factor Minimum	Q Measuring Frequency (MHz)	Self Resonant Frequency Minimum (MHz)	DC Resistance Maximum (Ω)	Allowable DC Current Maximum (mA)
KQT0402T**1N0*	—	1.0	250	B: ±0.1nH C: ±0.2nH	16	250	11000	0.045	1360
KQT0402T**1N9*		1.9					9600	0.070	1040
KQT0402T**2N0*		2.0			19				
KQT0402T**2N2*		2.2							960
KQT0402T**2N4*		2.4			18		8000	0.068	
KQT0402T**2N7*		2.7			17			0.120	700
KQT0402T**3N3*		3.3		H: ±3% J: ±5% K: ±10%	19		7200	0.066	840
KQT0402T**3N6*		3.6							
KQT0402T**3N9*		3.9							
KQT0402T**4N3*		4.3			18		6000	0.091	800
KQT0402T**4N7*		4.7							
KQT0402T**5N1*		5.1			20		5800	0.083	
KQT0402T**5N6*		5.6							760
KQT0402T**6N2*		6.2							
KQT0402T**6N8*		6.8					4800	0.086	680
KQT0402T**7N5*		7.5			22		5800	0.104	
KQT0402T**8N2*		8.2					4400		
KQT0402T**8N7*		8.7			20		4200	0.150	650
KQT0402T**9N0*		9.0			22		4160	0.104	680
KQT0402T**9N5*		9.5			20		4000	0.150	650
KQT0402T**10N*		10			21		3900	0.195	480
KQT0402T**11N*		11			24		3680	0.120	640
KQT0402T**12N*		12					3600		
KQT0402T**13N*		13					3450	0.180	560
KQT0402T**15N*		15					3280	0.172	
KQT0402T**16N*		16					3100	0.200	
KQT0402T**18N*		18			25			0.230	500
KQT0402T**19N*		19			24		3040	0.202	480
KQT0402T**20N*		20			25		3000	0.250	450
KQT0402T**22N*		22					2800	0.323	400
KQT0402T**23N*		23			24		2720	0.214	
KQT0402T**24N*		24			25		2700	0.322	
KQT0402T**27N*		27			24		2480	0.298	
KQT0402T**30N*		30			25		2400	0.354	
KQT0402T**33N*		33			24			0.393	
KQT0402T**34N*		34						0.550	340
KQT0402T**36N*		36					2320	0.560	320
KQT0402T**39N*		39			25		2300	0.550	300
KQT0402T**40N*		40			24		2240	0.620	320
KQT0402T**43N*		43			25		2200	0.810	300
KQT0402T**47N*		47			20		2100	0.830	150
KQT0402T**51N*		51			25			0.835	240
KQT0402T**56N*		56					2800	1.170	200
KQT0402T**68N*		68			22		2000	1.120	
KQT0402T**82N*		82					1800	1.810	140
KQT0402T**R10*		100					1600	2.090	130
KQT0402T**R12*		120					1500	2.320	120

* Add tolerance character (B, C, G, H, J, K, M)
** Add packaging code

For complete environmental specifications, please refer to www.koaspeer.com

Specifications given herein may be changed at any time without prior notice. Please confirm technical specifications before you order and/or use. 12/16/11

applications and ratings (continued)

Part Designation	Marking	Nominal Inductance (nH)	L Measuring Frequency	Inductance Tolerance	Q Quality Factor Minimum	Q Measuring Frequency (MHz)	Self Resonant Frequency Minimum (MHz)	DC Resistance Maximum (Ω)	Allowable DC Current Maximum (mA)
KQ0603TTE1N6*	C	1.6	250	J: ±5% K: ±10%	24	250	12500	0.03	700
KQ0603TTE1N8*	0	1.8			16			0.045	
KQ0603TTE3N3*	X	3.3			22		6900	0.055	
KQ0603TTE3N6*	E	3.6						0.063	
KQ0603TTE3N9*	1	3.9						0.08	
KQ0603TTE4N3*	F	4.3					5900	0.063	
KQ0603TTE4N7*	G	4.7			20		5800	0.116	
KQ0603TTE5N1*	Y	5.1						0.115	
KQ0603TTE6N8*	2	6.8		G: ±2% J: ±5% K: ±10%	27			0.11	
KQ0603TTE7N5*	H	7.5			28		4800	0.106	
KQ0603TTE8N2*	A	8.2						0.12	
KQ0603TTE8N7*	J	8.7					4600	0.109	
KQ0603TTE9N5*	B	9.5					4800	0.125	
KQ0603TTE10N*	3	10			31			0.13	
KQ0603TTE11N*	K	11			33		4000	0.086	
KQ0603TTE12N*	4	12			35			0.13	
KQ0603TTE15N*	5	15						0.17	
KQ0603TTE16N*	L	16			34		3300	0.104	
KQ0603TTE18N*	6	18			35		3100	0.17	
KQ0603TTE22N*	7	22			38		3000	0.19	
KQ0603TTE23N*	S	23			37		2700	0.15	
KQ0603TTE24N*	M	24					2650	0.135	
KQ0603TTE27N*	8	27			40		2800	0.22	600
KQ0603TTE30N*	N	30			37		2250	0.144	
KQ0603TTE33N*	9	33			40		2300	0.22	
KQ0603TTE36N*	P	36			38		2080	0.25	
KQ0603TTE39N*	0	39			40		2200		
KQ0603TTE43N*	Q	43			39		2000	0.28	
KQ0603TTE47N*	1	47	200		38	200	1900	0.30	
KQ0603TTE51N*	T	51						0.31	
KQ0603TTE56N*	2	56							
KQ0603TTE68N*	3	68			37		1700	0.34	
KQ0603TTE72N*	4	72	150		34	150		0.49	400
KQ0603TTE82N*	5	82						0.54	
KQ0603TTER10*	6	100					1400	0.58	
KQ0603TTER11*	7	110			32		1350	0.61	300
KQ0603TTER12*	8	120					1300	0.65	
KQ0603TTER15*	9	150					1400	1.4	160
KQ0603TTER18*	0	180	100		25	100	1300	2.2	140
KQ0603TTER20*	U	200					1200	2.3	130
KQ0603TTER21*	V	210							
KQ0603TTER22*	1	220						2.5	120
KQ0603TTER25*	W	250			24		1000	2.4	
KQ0603TTER27*	2	270					900	2.3	170
KQ0603TTER30*	X	300					840	3.17	110
KQ0603TTER33*	3	330			30		800	3.0	100
KQ0603TTER39*	4	390					700	3.7	80
KQ0603TTER47*	5	470	50	J: ±5% K: ±10%		50	640	1.21	190
KQ0603TTER51*	V	510					610	1.26	170
KQ0603TTER56*	6	560					560	2.09	130

* Add tolerance character (B, C, G, H, J, K, M)

For complete environmental specifications, please refer to www.koaspeer.com

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applications and ratings (continued)

Part Designation	Marking	Nominal Inductance (nH)	L Measuring Frequency	Inductance Tolerance	Q Quality Factor Minimum	Q Measuring Frequency (MHz)	Self Resonant Frequency Minimum (MHz)	DC Resistance Maximum (Ω)	Allowable DC Current Maximum (mA)
KQ0603TTER62*	W	620	50	J: ±5% K: ±10%	30	50	590	1.89	150
KQ0603TTER68*	7	680					540	1.97	140
KQ0603TTER75*	X	750					530	2.04	130
KQ0603TTER82*	8	820					490	3.09	110
KQ0603TTER91*	Y	910					480	2.95	120
KQ0603TTE1R0*	9	1000					440	5.13	90
KQ0603TTE1R2*	0	1200					400	5.45	80
KQ0805TTE3N3*	0	3.3	250		50	1500	6000	0.08	600
KQ0805TTE6N8*	1	6.8				1000	5500	0.11	
KQ0805TTE8N2*	2	8.2					4700	0.12	
KQ0805TTE12N*	3	12		G: ±2% J: ±5% K: ±10%		500	4000	0.15	
KQ0805TTE15N*	4	15					3400	0.17	
KQ0805TTE18N*	5	18					3300	0.20	
KQ0805TTE20N*	Y	20			55		2600	0.22	500
KQ0805TTE22N*	6	22							
KQ0805TTE27N*	7	27					2500	0.25	
KQ0805TTE33N*	8	33			60		2050	0.27	
KQ0805TTE39N*	9	39					2000	0.29	
KQ0805TTE43N*	4	43	200				1650	0.34	
KQ0805TTE47N*	0	47						0.31	
KQ0805TTE56N*	1	56					1550	0.34	
KQ0805TTE68N*	2	68					1450	0.38	
KQ0805TTE82N*	3	82	150		65		1300	0.42	400
KQ0805TTER10*	4	100					1200	0.46	
KQ0805TTER12*	5	120			50	250	1100	0.51	
KQ0805TTER15*	6	150	100				920	0.56	
KQ0805TTER16*	H	160					870	0.64	
KQ0805TTER17*	J	170							
KQ0805TTER18*	7	180							
KQ0805TTER19*	D	190					850	0.70	
KQ0805TTER20*	E	200							
KQ0805TTER21*	F	210							
KQ0805TTER22*	8	220							
KQ0805TTER23*	K	230			48		650	1.0	350
KQ0805TTER24*	L	240							
KQ0805TTER25*	G	250							
KQ0805TTER27*	9	270							
KQ0805TTER33*	0	330					600	1.4	310
KQ0805TTER39*	1	390					560	1.5	290
KQ0805TTER47*	2	470	50	J: ±5% K: ±10%	33	100	375	1.76	250
KQ0805TTER56*	3	560	25		23	50	340	1.9	230
KQ0805TTER68*	4	680					188	2.2	190
KQ0805TTER82*	5	820					215	2.35	180
KQ1008TTE10N*	10N	10	50	J: ±5% K: ±10% M: ±20%	50	500	4100	0.08	1000
KQ1008TTE12N*	12N	12					3300	0.09	
KQ1008TTE15N*	15N	15					3000	0.10	
KQ1008TTE18N*	18N	18				350	2500	0.11	
KQ1008TTE22N*	22N	22			55		2400	0.12	
KQ1008TTE27N*	27N	27					1600	0.13	
KQ1008TTE33N*	33N	33			60		1600	0.14	
KQ1008TTE39N*	39N	39					1500	0.15	
KQ1008TTE47N*	47N	47			65			0.16	

* Add tolerance character (C, G, H, J, K, M) For complete environmental specifications, please refer to www.koaspeer.com

Specifications given herein may be changed at any time without prior notice. Please confirm technical specifications before you order and/or use. 12/31/10

applications and ratings (continued)

Part Designation	Marking	Nominal Inductance (nH)	L Measuring Frequency	Inductance Tolerance	Q Quality Factor Minimum	Q Measuring Frequency (MHz)	Self Resonant Frequency Minimum (MHz)	DC Resistance Maximum (Ω)	Allowable DC Current Maximum (mA)
KQ1008TTE56N*	56N	56	50	G: ±2% J: ±5% K: ±10%	65	350	1300	0.18	1000
KQ1008TTE68N*	68N	68						0.20	
KQ1008TTE82N*	82N	82			60		1000	0.22	
KQ1008TTER10*	R10	100	25					0.56	650
KQ1008TTER12*	R12	120					950	0.63	
KQ1008TTER15*	R15	150			45	100	850	0.70	580
KQ1008TTER18*	R18	180					750	0.77	620
KQ1008TTER22*	R22	220					700	0.84	500
KQ1008TTER27*	R27	270					600	0.91	500
KQ1008TTER33*	R33	330					570	1.05	450
KQ1008TTER39*	R39	390					500	1.12	470
KQ1008TTER47*	R47	470					450	1.19	
KQ1008TTER56*	R56	560					415	1.33	400
KQ1008TTER62*	R62	620					375	1.40	300
KQ1008TTER68*	R68	680						1.47	400
KQ1008TTER75*	R75	750					360	1.54	360
KQ1008TTER82*	R82	820					350	1.61	400
KQ1008TTER91*	R91	910			35	50	320	1.68	380
KQ1008TTE1R0*	1R0	1000					290	1.75	370
KQ1008TTE1R2*	1R2	1200	7.9				250	1.6	310
KQ1008TTE1R5*	1R5	1500			28		200	1.7	300
KQ1008TTE1R8*	1R8	1800					160	1.9	270
KQ1008TTE2R2*	2R2	2200						2.2	250
KQ1008TTE2R7*	2R7	2700			22	25	140	2.3	
KQ1008TTE3R3*	3R3	3300					110	2.7	230
KQ1008TTE3R9*	3R9	3900			20		100	2.8	
KQ1008TTE4R7*	4R7	4700					90	3.1	210
KQ1008TTE5R6*	5R6	5600			15	7.9	80	2.5	240
KQ1008TTE6R8*	6R8	6800					70	2.8	200
KQ1008TTE8R2*	8R2	8200					65	3.0	170
KQ1008TTE100*	100	10000					60	3.4	150

* Add tolerance character (C, G, H, J, K, M)

Operating Temperature Range: -40°C ~ +125°C (Self-heating is included). That the operating temperature upper limit temperature of the coil winding portions (ambient temperature + self-heating) is (+125°C) or less.

environmental applications

Performance Characteristics

Parameter	Requirements Maximum Δ L/L Limit	Typical	Test Method
Resistance to Soldering Heat	No significant abnormality in appearance Δ L/L: ±5%, Δ Q/Q: ±10%	Δ L/L: ±2.7% Δ Q/Q: ±6.6%	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: ±2.1% Δ Q/Q: ±5.3%	-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: ±1.8% Δ Q/Q: ±2.8%	-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: ±5.3%	125°C ± 2°C, 1000h
Moisture Exposure	No significant abnormality in appearance Δ L/L: ±5%, Δ Q/Q: ±10%	Δ L/L: ±0.9% Δ Q/Q: ±6.9%	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

For complete environmental specifications, please refer to www.koaspeer.com

1/02/14

Mouser Electronics

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KOA Speer:

KQT0402TTD36NJ KQ0603TTE6N8G KQ1008TTE15NJ KQT0402TTD3N6J KQ1008TTE27NJ KQT0402TTD3N9J KQ1008TTER47G KQT0402TTD3N3J KQ1008TTER82G KQ1008TTER68G KQ0603TTE7N5G KQ1008TTER62G KQ0603TTE72NG KQ1008TTER22G KQ0603TTE68NG KQ1008TTER27G KQ1008TTE2R2G KQ1008TTER15G KQ1008TTE22NJ KQ1008TTER12G KQ1008TTER18G KQ1008TTER10G KQ1008TTE2R7G KQ1008TTE10NJ KQ1008TTE100G KQ1008TTER91G KQ1008TTE18NJ KQ1008TTER56G KQT0402TTD27NJ KQ1008TTER33G KQ1008TTER39G KQ1008TTE1R2G KQ1008TTE1R8G KQ1008TTE1R0G KQ1008TTE1R5G KQ1008TTE12NJ KQ1008TTER75G KQT0402TTD23NJ KQ1008TTE6R8G KQ0603TTE30NG KQ0805TTE56NG KQ0603TTE10NG KQ0603TTER15G KQ0603TTER11G KQ0603TTER10G KQ0603TTER18G KQ0603TTER12G KQ0603TTE22NG KQ0603TTE18NJ KQ0603TTE18NG KQ1008TTE82NG KQ1008TTE8R2G KQ0603TTE24NG KQ0603TTE36NG KQ0603TTE12NG KQ0603TTE12NJ KQ0603TTE3N6J KQ1008TTE68NG KQ0603TTE3N9J KQ0603TTE1N8J KQ0603TTE1N6J KQ0603TTER33G KQ0603TTER39G KQ0603TTE16NG KQ0603TTE33NG KQ0603TTE82NG KQ0603TTER27G KQ0603TTER22G KQT0402TTD8N2J KQ0603TTE8N7G KQ0603TTE39NG KQT0402TTD9N0J KQ0805TTE47NJ KQ0805TTER82G KQ0603TTE27NG KQ1008TTE47NJ KQT0402TTD5N6J KQ0603TTE15NJ KQ0603TTE15NG KQT0402TTD40NJ KQ0603TTE11NG KQ0805TTE15NJ KQ0805TTER47G KQ0805TTE27NJ KQ0805TTE39NJ KQ1008TTE39NJ KQT0402TTD7N5J KQ0603LTE3N3J KQ0603LTE9N5G KQ0805TTE2N8J KQT0402LTD39NJ KQ0603TTE82NJ KQ0603TTER15J KQ0603TTER18J KQ0805TTE82NJ KQ0805TTER56J KQT0402TTD2N0C KQ0805TTER22K KQT0402TK001-KIT KQ0805LTE82NG