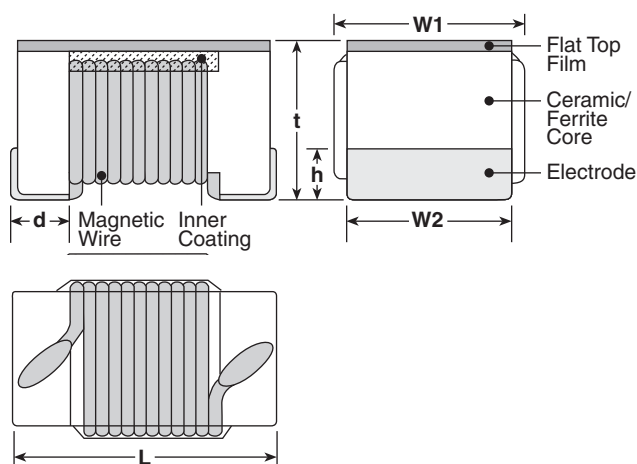


features

- 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)	.053±.004 (1.35±0.1)	.051±.008 (1.3±0.2)	.016±.006 (0.40±0.15)	.018±.004 (0.45±0.1)
		.063±.008 (1.6±0.2) (470nH-820nH)				
KQ1008	.098±.008 (2.5±0.2)	.087±.008 (2.2±0.2)	.079±.004 (2.0±0.1)	.071 ^{+.008} ₋₀ (1.8 ^{+.02} ₋₀)	.018±.006 (0.45±0.15)	.018±.004 (0.45±0.1)

ordering information

New Part #	KQ	1008	T	TE	10N	J
Type	KQ KQT	Size Code 0402 0603 0805 1008	Termination Material T: Sn	Packaging 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)	Nominal Inductance 3 digits: 10N: 10nH R10: 0.1μH 1R0: 1.0μH	Tolerance 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 (MHz)	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*										
KQT0402T**2N0*										
KQT0402T**2N2*										
KQT0402T**2N4*										
KQT0402T**2N7*										
KQT0402T**3N3*				3.3	H: ±3% J: ±5% K: ±10%	19		9600	0.070	1040
KQT0402T**3N6*				3.6						
KQT0402T**3N9*				3.9						
KQT0402T**4N3*				4.3						
KQT0402T**4N7*				4.7						
KQT0402T**5N1*				5.1						
KQT0402T**5N6*				5.6						
KQT0402T**6N2*				6.2						
KQT0402T**6N8*				6.8						
KQT0402T**7N5*				7.5						
KQT0402T**8N2*				8.2						
KQT0402T**8N7*				8.7						
KQT0402T**9N0*				9.0						
KQT0402T**9N5*				9.5						
KQT0402T**10N*				10						
KQT0402T**11N*				11						
KQT0402T**12N*				12						
KQT0402T**13N*				13						
KQT0402T**15N*				15						
KQT0402T**16N*				16						
KQT0402T**18N*				18						
KQT0402T**19N*				19						
KQT0402T**20N*				20						
KQT0402T**22N*				22						
KQT0402T**23N*				23						
KQT0402T**24N*				24						
KQT0402T**27N*				27						
KQT0402T**30N*				30						
KQT0402T**33N*				33						
KQT0402T**34N*				34						
KQT0402T**36N*				36						
KQT0402T**39N*				39						
KQT0402T**40N*				40						
KQT0402T**43N*				43						
KQT0402T**47N*				47						
KQT0402T**51N*				51						
KQT0402T**56N*				56						
KQT0402T**68N*				68						
KQT0402T**82N*				82						
KQT0402T**R10*				100						
KQT0402T**R12*				120						

* Add tolerancing 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.

12/01/14

applications and ratings (continued)

Part Designation	Marking	Nominal Inductance (nH)	L Measuring Frequency (MHz)	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			27			0.115			
KQ0603TTE6N8*	2	6.8			4800		0.11				
KQ0603TTE7N5*	H	7.5					28			0.106	
KQ0603TTE8N2*	A	8.2		G: ±2% J: ±5% K: ±10%			4600	0.12			
KQ0603TTE8N7*	J	8.7					4800	0.109			
KQ0603TTE9N5*	B	9.5		31			4800	0.125			
KQ0603TTE10N*	3	10						0.13			
KQ0603TTE11N*	K	11		33	4000		0.086				
KQ0603TTE12N*	4	12		35			0.13				
KQ0603TTE15N*	5	15		3300	0.17						
KQ0603TTE16N*	L	16			34		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	200		37	2250	0.144				
KQ0603TTE33N*	9	33			40	200	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			38				0.30		
KQ0603TTE51N*	T	51			37	1900	0.31				
KQ0603TTE56N*	2	56				1700	0.34	400			
KQ0603TTE68N*	3	68			150		150		0.49		
KQ0603TTE72N*	4	72	150				1400	0.54			
KQ0603TTE82N*	5	82	32		1350	0.58					
KQ0603TTER10*	6	100			1300	0.65	300				
KQ0603TTER11*	7	110	25		1400	1.4		160			
KQ0603TTER12*	8	120	100	1300	2.2	140					
KQ0603TTER15*	9	150		100		1200		2.3	130		
KQ0603TTER18*	0	180						2.5	120		
KQ0603TTER20*	U	200				24		1000		2.4	
KQ0603TTER21*	V	210						900	2.3	170	
KQ0603TTER22*	1	220				24		840	3.17	110	
KQ0603TTER25*	W	250						800	3.0	100	
KQ0603TTER27*	2	270	30			50	700	3.7	80		
KQ0603TTER30*	X	300					640	1.21	190		
KQ0603TTER33*	3	330		50				610	1.26	170	
KQ0603TTER39*	4	390						560	2.09	130	
KQ0603TTER47*	5	470		J: ±5% K: ±10%			590	1.89	150		
KQ0603TTER51*	V	510									
KQ0603TTER56*	6	560									
KQ0603TTER62*	W	620									

* Add tolerance character (B, 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.

12/01/14

applications and ratings (continued)

	Part Designation	Marking	Nominal Inductance (nH)	L Measuring Frequency (MHz)	Inductance Tolerance	Q Quality Factor Minimum	Q Measuring Frequency (MHz)	Self Resonant Frequency Minimum (MHz)	DC Resistance Maximum (Ω)	Allowable DC Current Maximum (mA)		
NEW	KQ0603TTER68*	7	680	50	J: ±5% K: ±10%	30	50	540	1.97	140		
	KQ0603TTER72*	C	720					530	2.04	130		
KQ0603TTER75*	X	750	490					3.09	110			
KQ0603TTER82*	8	820	480					2.95	120			
KQ0603TTER91*	Y	910	440					5.13	90			
KQ0603TTE1R0*	9	1000	400					5.45	80			
KQ0603TTE1R2*	0	1200										
KQ0805TTE3N3*	0	3.3	250						50	1500	6000	0.08
KQ0805TTE6N8*	1	6.8		1000	5500	0.11						
KQ0805TTE8N2*	2	8.2		4700	0.12							
KQ0805TTE12N*	3	12		4000	0.15							
KQ0805TTE15N*	4	15		500	3400	0.17	500					
KQ0805TTE18N*	5	18			3300	0.20						
KQ0805TTE20N*	Y	20			55	2600			0.22			
KQ0805TTE22N*	6	22				2500			0.25			
KQ0805TTE27N*	7	27	2050			0.27						
KQ0805TTE33N*	8	33	2000			0.29						
KQ0805TTE39N*	9	39	60			1650		0.34	500			
KQ0805TTE43N*	4	43				1550		0.34				
KQ0805TTE47N*	0	47		1450		0.38						
KQ0805TTE56N*	1	56		1300		0.42						
KQ0805TTE68N*	2	68	150	G: ±2% J: ±5% K: ±10%	65	1200	0.46	400				
KQ0805TTE82N*	3	82				1100	0.51					
KQ0805TTER10*	4	100				920	0.56					
KQ0805TTER12*	5	120				870	0.64					
KQ0805TTER15*	6	150	100		50	250	850	0.70	350			
KQ0805TTER16*	H	160					48	650		1.0		
KQ0805TTER17*	J	170						600		1.4		
KQ0805TTER18*	7	180						560		1.5		
KQ0805TTER19*	D	190			375	1.76						
KQ0805TTER20*	E	200			23	50	340	1.9				
KQ0805TTER21*	F	210					188	2.2				
KQ0805TTER22*	8	220					215	2.35				
KQ0805TTER23*	K	230										
KQ0805TTER24*	L	240	50	J: ±5% K: ±10%	33	100	4100	0.08	1000			
KQ0805TTER25*	G	250					3300	0.09				
KQ0805TTER27*	9	270					3000	0.10				
KQ0805TTER33*	0	330					2500	0.11				
KQ0805TTER39*	1	390	55	350	2400	0.12						
KQ0805TTER47*	2	470			1600	0.13						
KQ0805TTER56*	3	560			1600	0.14						
KQ0805TTER68*	4	680			1500	0.15						
KQ0805TTER82*	5	820	25		65		0.16					
KQ1008TTE10N*	10N	10					50	J: ±5% K: ±10% M: ±20%		50	500	
KQ1008TTE12N*	12N	12										
KQ1008TTE15N*	15N	15										
KQ1008TTE18N*	18N	18										
KQ1008TTE22N*	22N	22	55	350								
KQ1008TTE27N*	27N	27										
KQ1008TTE33N*	33N	33										
KQ1008TTE39N*	39N	39										
KQ1008TTE47N*	47N	47										

* 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.

12/01/14

applications and ratings (continued)

Part Designation	Marking	Nominal Inductance (nH)	L Measuring Frequency (MHz)	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			60		1000	0.20		
KQ1008TTE82N*	82N	82						0.22		
KQ1008TTER10*	R10	100	25		45	100	1000	0.56	650	
KQ1008TTER12*	R12	120					950	0.63		
KQ1008TTER15*	R15	150					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
KQ1008TTE1R0*	1R0	1000	290		1.75	370				
KQ1008TTE1R2*	1R2	1200	250		1.6	310				
KQ1008TTE1R5*	1R5	1500	28		50	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		230	
KQ1008TTE3R3*	3R3	3300				110	2.7			
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

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 Limit	Δ L/L Δ Q/Q 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

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

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

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](#) [KQ0805TTE2N8J](#) [KQ0603TTE82NJ](#)
[KQ0603TTER15J](#) [KQ0603TTER18J](#) [KQ0805TTE82NJ](#) [KQ0805TTER56J](#) [KQT0402TTD2N0C](#) [KQ0805TTER22K](#)
[KQT0402TK001-KIT](#) [KQT0402LTD56NJ](#) [KQT0402LTD9N0J](#) [KQ0603TTE8N2G](#)