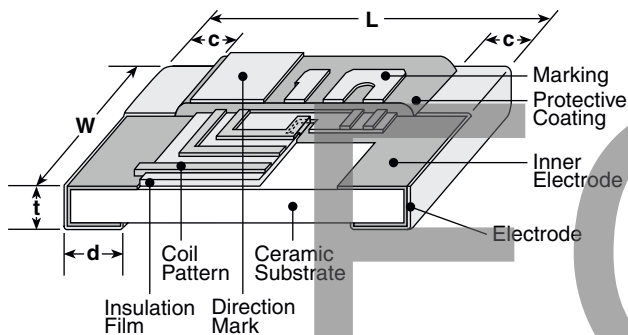


features

- Excellent for high frequency applications
- Low DC resistance and high Q
- Operating temperature: -40°C ~ +125°C
- Low tolerance ±2% available
- Small size allows for high density mounting (1E, 1J, 2A, 2B)
- Marking: Yellow marking on blue protective coating (1E, 1J, 2A, 2B)
- Products with lead-free terminations meet EU RoHS and China RoHS requirements
- AEC-Q200 Qualified

dimensions and construction



Type (Inch Size Code)	Dimensions inches (mm)				
	L	W	c	d	t
1E (0402)	.039±.004 (1.0±0.1)	.02±.002 (0.5±0.05)	.006±.004 (0.15±0.1)	.01±.004 (0.25±0.1)	.014±.002 (0.35±0.05)
1J (0603)	.063±.008 (1.6±0.2)	.031±.004 (0.8±0.1)	.012±.004 (0.3±0.1)	.012±.004 (0.3±0.1)	.02±.004 (0.5±0.1)
2A (0805)	.079±.008 (2.0±0.2)	.049±.008 (1.25±0.2)	.016±.008 (0.4±0.2)	.012±.004 (0.3±0.2)	.02±.004 (0.5±0.1)
2B (1206)	.126±.008 (3.2±0.2)	.063±.008 (1.6±0.2)	.02±.008 (0.5±0.2)	.016 ^{+0.008} _{-.004} (0.4 ^{+0.2} _{-.1})	.024±.004 (0.6±0.1)

Inductance Marking

Part 1J (nH)	Marking	Part 1J (nH)	Marking
1.0	L1	10	10
1.2	L2	12	12
1.5	L3	15	15
1.8	L4	18	H1
2.2	22	22	H2
2.7	27	27	H3
3.3	33	33	H4
3.9	39	39	H5
4.7	47	47	H6
5.6	56	56	H7
6.8	68	68	H8
8.2	82	82	H9

Part Marking	Value (nH) 2.2 - 8.2	Value (nH) 10 and higher
2A	Ex. = 2.2 = 2.2nH	Ex. = 15 = 15nH
2B	Ex. = 2N2 = 2.2nH	Ex. = 15N = 15nH

No marking on 1E (0402)

ordering information

New Part #	KL73	2A	T	TE	4N7	G
Type						
Size Code		1E: 0402 1J: 0603 2A: 0805 2B: 1206				
Termination Material			T: Sn			
Packaging				TP: 7" paper 2mm pitch (1E only - 10,000 pieces/reel) TE: 7" embossed plastic 4mm pitch (1J, 2A, 2B - 4,000 pieces/reel)		
Nominal Inductance					4N7: 4.7nH 47N: 47nH	
Tolerance						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)	Inductance Tolerance	Quality Factor Minimum	Self Resonant Frequency Minimum (MHz)	DC Resistance Maximum (Ω)	Allowable DC Current Maximum (mA)	Measured Frequency (MHz)**		
KL731ETTPN56B	0.56	B: ± 0.1 nH	7	14000	0.10	700	500		
KL731ETTPN68B	0.68								
KL731ETTPN82B	0.82								
KL731ETTP1N0*	1.0	B: ± 0.1 nH C: ± 0.2 nH	10	12000	0.15	500			
KL731ETTP1N2*	1.2			10000	0.20				
KL731ETTP1N5*	1.5			8000	0.25			650	
KL731ETTP1N8*	1.8			6000	0.30			600	
KL731ETTP2N2*	2.2			5000	0.50			550	
KL731ETTP2N7*	2.7			4000	1.00			500	
KL731ETTP3N3*	3.3			3000	1.50			450	
KL731ETTP3N9*	3.9			2500			300		
KL731ETTP4N7*	4.7			G: $\pm 2\%$ J: $\pm 5\%$	7		2000	2.00	200
KL731ETTP5N6*	5.6						1500	3.00	
KL731ETTP6N8*	6.8	C: ± 0.2 nH	20	1000	5.00	500			
KL731ETTP8N2*	8.2			13000	0.10		650		
KL731ETTP10N*	10			10000					
KL731ETTP12N*	12			8000	0.15		450		
KL731ETTP15N*	15			6000	0.25		350		
KL731ETTP18N*	18			5000	0.50				
KL731ETTP22N*	22			4000			1.0	250	
KL731ETTP27N*	27			3000	1.50				
KL731ETTP33N*	33			2500			2.50	150	
KL731JTTE1N0*	1.0			G: $\pm 2\%$ J: $\pm 5\%$	25				2000
KL731JTTE1N2*	1.2	1500	1.50						
KL731JTTE1N5*	1.5	1000				2.50			
KL731JTTE1N8*	1.8	600	4.00				120		
KL731JTTE2N2*	2.2	8000				4.50			
KL731JTTE2N7*	2.7	6000	100						
KL731JTTE3N3*	3.3	5000				100			
KL731JTTE3N9*	3.9	4000	100						
KL731JTTE4N7*	4.7	3000				100			
KL731JTTE5N6*	5.6	2500	100						
KL731JTTE6N8*	6.8	2000		100					
KL731JTTE8N2*	8.2	1500	100						
KL731JTTE10N*	10	1000		100					
KL731JTTE12N*	12	600	100						
KL731JTTE15N*	15	600		100					
KL731JTTE18N*	18	600	100						
KL731JTTE22N*	22	600		100					
KL731JTTE27N*	27	600	100						
KL731JTTE33N*	33	600		100					
KL731JTTE39N*	39	600	100						
KL731JTTE47N*	47	600		100					
KL731JTTE56N*	56	600	100						
KL731JTTE68N*	68	600		100					

* Add tolerance character (B, C, G, J)

** 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

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

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applications and ratings (continued)

Part Designation	Nominal Inductance (nH)	Inductance Tolerance	Quality Factor Minimum	Self Resonant Frequency Minimum (MHz)	DC Resistance Maximum (Ω)	Allowable DC Current Maximum (mA)	Measured Frequency (MHz)**		
KL732ATTE1N0*	1.0	C: $\pm 0.2\text{nH}$	20	13000	0.25	900	500		
KL732ATTE1N2*	1.2			10000					
KL732ATTE1N5*	1.5			9000					
KL732ATTE1N8*	1.8		25	8000		0.50		800	
KL732ATTE2N2*	2.2			6000					
KL732ATTE2N7*	2.7			5000					
KL732ATTE3N3*	3.3			4500				1.00	700
KL732ATTE3N9*	3.9			4000					500
KL732ATTE4N7*	4.7			3000					400
KL732ATTE5N6*	5.6			G: $\pm 2\%$ J: $\pm 5\%$				20	2500
KL732ATTE12N*	12	2000							
KL732ATTE15N*	15	1500							
KL732ATTE18N*	18	15	1000		4.00	250			
KL732ATTE22N*	22		800						
KL732ATTE27N*	27		800						
KL732ATTE33N*	33		700			5.00	150		
KL732ATTE39N*	39		600						
KL732ATTE47N*	47		600						
KL732ATTE56N*	56		C: $\pm 0.2\text{nH}$			25	9000	0.25	1000
KL732ATTE68N*	68	7000							
KL732ATTE82N*	82	6000							
KL732BTTE2N2*	2.2	35		5000	0.50	900			
KL732BTTE2N7*	2.7			4500					
KL732BTTE3N3*	3.3			4000					
KL732BTTE3N9*	3.9			3500		1.00	800		
KL732BTTE4N7*	4.7			3000					
KL732BTTE5N6*	5.6			2500					
KL732BTTE6N8*	6.8			2000					
KL732BTTE8N2*	8.2	40	1500	2.00	500	200			
KL732BTTE10N*	10		1000						
KL732BTTE12N*	12		1000						
KL732BTTE15N*	15		500						
KL732BTTE18N*	18		15		500		200		
KL732BTTE22N*	22				400				
KL732BTTE27N*	27				400				
KL732BTTE33N*	33	400							
KL732BTTE39N*	39	25	1000	2.00	400	200			
KL732BTTE47N*	47		500						
KL732BTTE56N*	56		500						
KL732BTTE68N*	68		400						
KL732BTTE82N*	82	15	400	2.00	200				
KL732BTTE100*	100		400						

* Add tolerance character (B, C, G, J)

** The operating temperature range of the coil (ambient temperature + self heating) must remain at +125°C or less

For L-Frequency and Q-Frequency Characteristics, see Environmental Applications at www.koaspeer.com

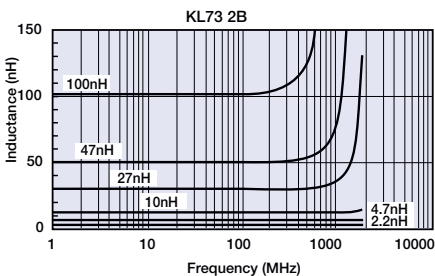
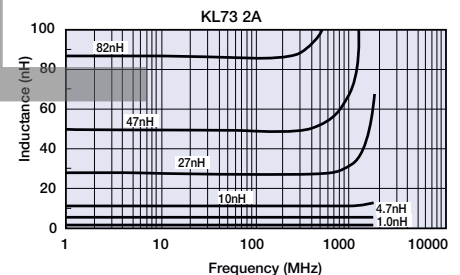
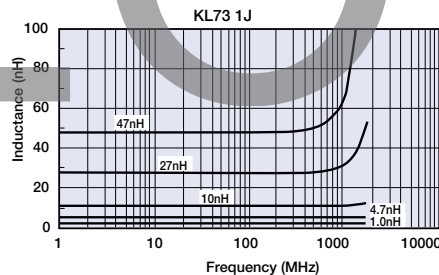
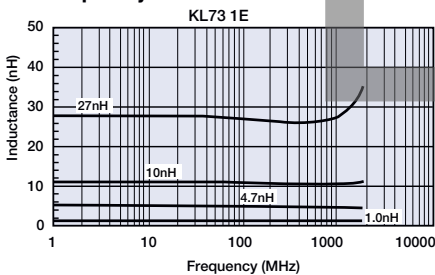
environmental applications

Performance Characteristics

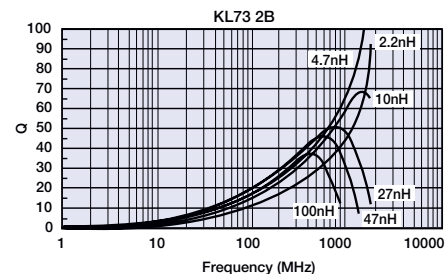
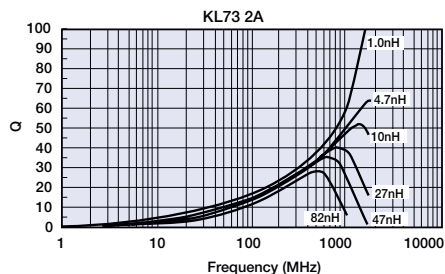
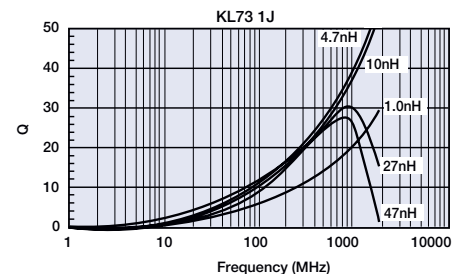
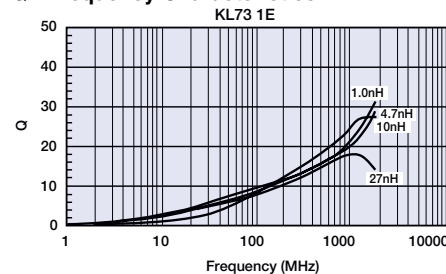
Parameter	Requirements Maximum Limit	Δ L/L Δ Q/Q Typical	Test Method
Resistance to Soldering Heat	Without distinct damage in appearance and construction Δ L/L: $\pm 2\%$, Δ Q/Q: $\pm 20\%$	Δ L/L: $\pm 0.5\%$ Δ Q/Q: $\pm 1.5\%$	260°C \pm 5°C, 10s \pm 1s
Rapid Change of Temperature	Without distinct damage in appearance and construction Δ L/L: $\pm 2\%$, Δ Q/Q: $\pm 20\%$	Δ L/L: $\pm 0.5\%$ Δ Q/Q: $\pm 1.6\%$	-40°C (30min.)/ +125°C (30min.) 100 cycles
Low Temperature Exposure	Without distinct damage in appearance and construction Δ L/L: $\pm 2\%$, Δ Q/Q: $\pm 20\%$	Δ L/L: $\pm 0.7\%$ Δ Q/Q: $\pm 1.2\%$	-40°C \pm 3°C, 1000h
High Temperature Exposure	Without distinct damage in appearance and construction Δ L/L: $\pm 2\%$, Δ Q/Q: $\pm 20\%$	Δ L/L: $\pm 0.4\%$ Δ Q/Q: $\pm 1.3\%$	125°C \pm 2°C, 1000h
Moisture Exposure	Without distinct damage in appearance and construction Insulation resistance: 50M Ω or more Δ L/L: $\pm 2\%$, Δ Q/Q: $\pm 20\%$	Δ L/L: $\pm 0.4\%$ Δ Q/Q: $\pm 1.4\%$	40°C \pm 2°C, 90%~95%RH, 1000h
Resistance to Solvent	Without distinct damage in appearance, construction and marking Δ L/L: $\pm 2\%$, Δ Q/Q: $\pm 20\%$	Δ L/L: $\pm 0.6\%$ Δ Q/Q: $\pm 1.2\%$	Immerse the inductors for 30s \pm 5s in the reagent (20°C ~ 25°C) of JIS K8839 (1995)

Frequency Characteristics Test equipment: HP4291B impedance analyzer (1E, 1J, 2A, 2B)

L - Frequency Characteristics



Q - Frequency Characteristics



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

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