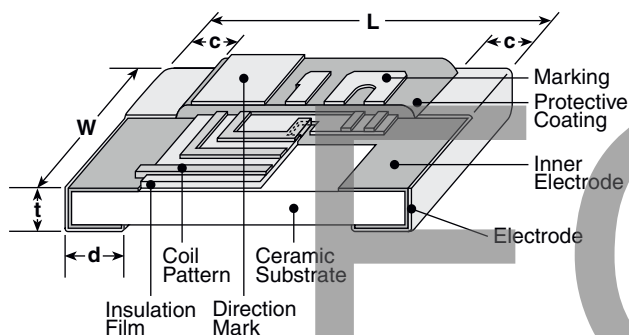


features

- Excellent for high frequency applications
- Low DC resistance and high Q
- Operating temperature: -40°C ~ +125°C
- Low tolerance $\pm 2\%$ 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 $\pm$.004 (1.0 $\pm$ 0.1)	.02 $\pm$.002 (0.5 $\pm$ 0.05)	.006 $\pm$.004 (0.15 $\pm$ 0.1)	.01 $\pm$.004 (0.25 $\pm$ 0.1)	.014 $\pm$.002 (0.35 $\pm$ 0.05)
1J (0603)	.063 $\pm$.008 (1.6 $\pm$ 0.2)	.031 $\pm$.004 (0.8 $\pm$ 0.1)	.012 $\pm$.004 (0.3 $\pm$ 0.1)	.012 $\pm$.004 (0.3 $\pm$ 0.1)	.02 $\pm$.004 (0.5 $\pm$ 0.1)
2A (0805)	.079 $\pm$.008 (2.0 $\pm$ 0.2)	.049 $\pm$.008 (1.25 $\pm$ 0.2)	.016 $\pm$.008 (0.4 $\pm$ 0.2)	.012 $\pm$.004 (0.3 $\pm$ 0.2)	.02 $\pm$.004 (0.5 $\pm$ 0.1)
2B (1206)	.126 $\pm$.008 (3.2 $\pm$ 0.2)	.063 $\pm$.008 (1.6 $\pm$ 0.2)	.02 $\pm$.008 (0.5 $\pm$ 0.2)	.016 $\pm$.008 (0.4 $\pm$ 0.2)	.024 $\pm$.004 (0.6 $\pm$ 0.1)

Inductance Marking

Part 1J (nH)	Marking
1.0	L1
1.2	L2
1.5	L3
1.8	L4
2.2	22
2.7	27
3.3	33
3.9	39
4.7	47
5.6	56
6.8	68
8.2	82

Part 1J (nH)	Marking
10	10
12	12
15	15
18	H1
22	H2
27	H3
33	H4
39	H5
47	H6
56	H7
68	H8
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	Termination Material	Packaging	Nominal Inductance	Tolerance
		1E: 0402 1J: 0603 2A: 0805 2B: 1206	T: Sn	TP: 7" paper 2mm pitch (1E only - 10,000 pieces/reel) TE: 7" embossed plastic 4mm pitch (1J, 2A, 2B - 4,000 pieces/reel)	4N7: 4.7nH 47N: 47nH	B: ± 0.1 nH C: ± 0.2 nH G: $\pm 2\%$ J: $\pm 5\%$

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	650		
KL731ETTP1N2*	1.2			10000	0.20			
KL731ETTP1N5*	1.5				600			
KL731ETTP1N8*	1.8			8000				0.25
KL731ETTP2N2*	2.2			6000	0.30	600		
KL731ETTP2N7*	2.7				0.50	550		
KL731ETTP3N3*	3.3			5000	1.00	500		
KL731ETTP3N9*	3.9					450		
KL731ETTP4N7*	4.7			4000	1.50	350		
KL731ETTP5N6*	5.6					3000		
KL731ETTP6N8*	6.8	G: $\pm 2\%$ J: $\pm 5\%$	7	2500	1.50	300		
KL731ETTP8N2*	8.2			2000	2.00			
KL731ETTP10N*	10				200			
KL731ETTP12N*	12			1500	3.00			
KL731ETTP15N*	15				150			
KL731ETTP18N*	18			1000	5.00			
KL731ETTP22N*	22				200			
KL731ETTP27N*	27			1000	150			
KL731ETTP33N*	33			1000	150			
KL731JTTE1N0*	1.0			C: ± 0.2 nH	20	13000	0.10	650
KL731JTTE1N2*	1.2	10000	0.15					
KL731JTTE1N5*	1.5		450					
KL731JTTE1N8*	1.8	8000	0.25			350		
KL731JTTE2N2*	2.2		0.50					
KL731JTTE2N7*	2.7	6000	1.0			250		
KL731JTTE3N3*	3.3		2500					
KL731JTTE3N9*	3.9	5000	4.00			150		
KL731JTTE4N7*	4.7		3000					
KL731JTTE5N6*	5.6	G: $\pm 2\%$ J: $\pm 5\%$	25			2500	1.50	200
KL731JTTE6N8*	6.8			1000	2.50			
KL731JTTE8N2*	8.2				600	4.00	100	
KL731JTTE10N*	10			1500		4.50		
KL731JTTE12N*	12				1000	1.50	200	
KL731JTTE15N*	15			600		2.50		
KL731JTTE18N*	18				1500	4.00	100	
KL731JTTE22N*	22			1000		4.50		
KL731JTTE27N*	27				600	1.50	200	
KL731JTTE33N*	33			1500		2.50		
KL731JTTE39N*	39	600	4.00					
KL731JTTE47N*	47		1500	4.50				
KL731JTTE56N*	56	600		1.50				
KL731JTTE68N*	68		1500	2.50				

* 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.

12/01/14

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: ±0.2nH	20	13000	0.25	900	500	
KL732ATTE1N2*	1.2							
KL732ATTE1N5*	1.5			10000				
KL732ATTE1N8*	1.8		25	9000	0.50	800		
KL732ATTE2N2*	2.2			8000				
KL732ATTE2N7*	2.7			6000				
KL732ATTE3N3*	3.3			5000				
KL732ATTE3N9*	3.9			4500				
KL732ATTE4N7*	4.7			4000				
KL732ATTE5N6*	5.6			3000				
KL732ATTE6N8*	6.8	G: ±2% J: ±5%	20	2500	1.00	400		
KL732ATTE8N2*	8.2			2000		300		
KL732ATTE10N*	10			1500				
KL732ATTE12N*	12		15	1000	1.50	250		
KL732ATTE15N*	15			800		200		
KL732ATTE18N*	18			700		4.00	150	
KL732ATTE22N*	22			600				
KL732ATTE27N*	27							
KL732ATTE33N*	33		10		5.00			
KL732ATTE39N*	39							
KL732ATTE47N*	47	G: ±2% J: ±5%	25	9000	0.25	1000	500	
KL732BTTE2N2*	2.2			7000				
KL732BTTE2N7*	2.7			6000				
KL732BTTE3N3*	3.3		35	5000		900		
KL732BTTE3N9*	3.9			4500				
KL732BTTE4N7*	4.7			4000				
KL732BTTE5N6*	5.6			3500		800		
KL732BTTE6N8*	6.8		40	3000				
KL732BTTE8N2*	8.2			2500	1.00			
KL732BTTE10N*	10			2000	500			
KL732BTTE12N*	12			1500				
KL732BTTE15N*	15		25	1000	2.00	400	200	
KL732BTTE18N*	18			500				
KL732BTTE22N*	22			400				
KL732BTTE27N*	27							
KL732BTTE33N*	33							
KL732BTTE39N*	39							
KL732BTTE47N*	47							
KL732BTTE56N*	56							
KL732BTTE68N*	68	15	500	200				
KL732BTTE82N*	82		400					
KL732BTTE100*	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 L-Frequency and Q-Frequency Characteristics, see Environmental Applications at www.koaspeer.com

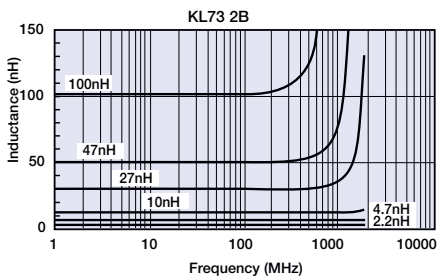
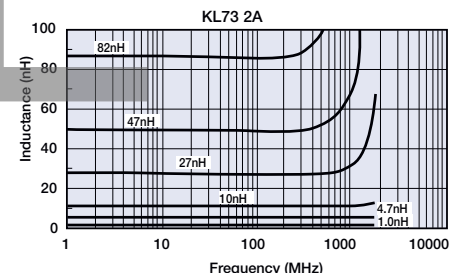
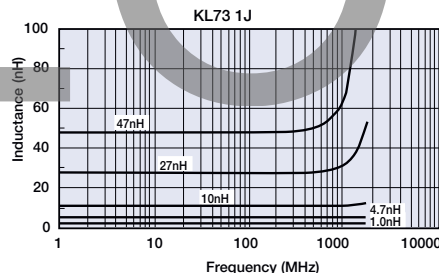
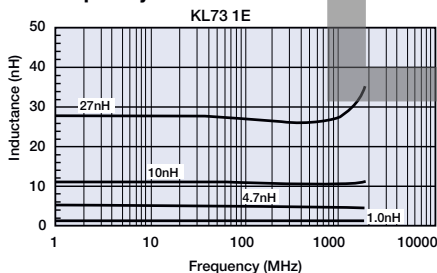
environmental applications

Performance Characteristics

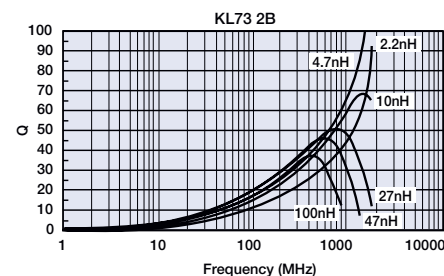
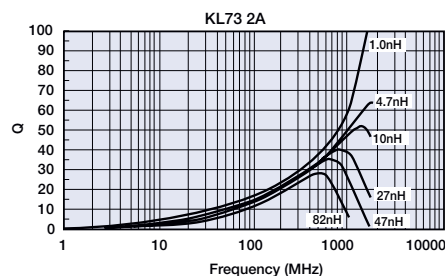
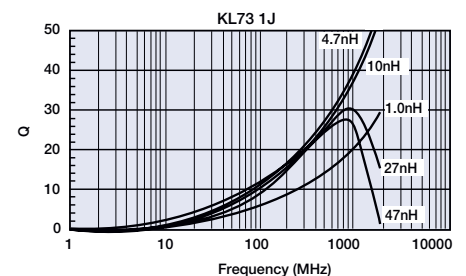
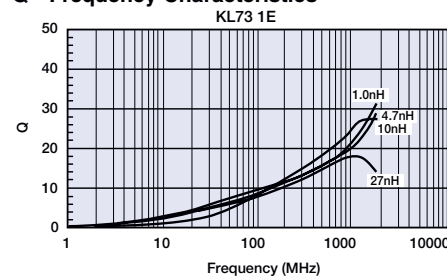
Parameter	Requirements Maximum Limit	$\Delta L/L$ $\Delta Q/Q$ Typical	Test Method
Resistance to Soldering Heat	Without distinct damage in appearance and construction $\Delta L/L: \pm 2\%$, $\Delta Q/Q: \pm 20\%$	$\Delta L/L: \pm 0.5\%$ $\Delta Q/Q: \pm 1.5\%$	260°C $\pm$ 5°C, 10s $\pm$ 1s
Rapid Change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

11/21/14