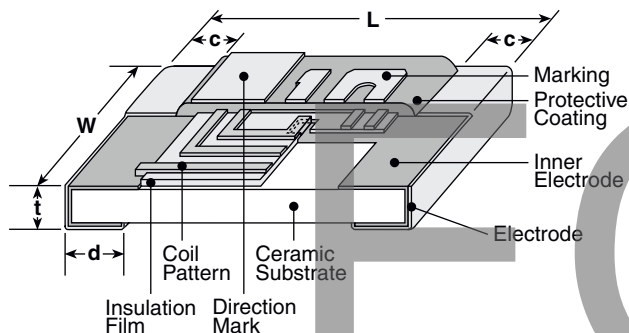


features

- 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	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	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	700		500		
KL731ETTP1N2*	1.2			10000	0.20					
KL731ETTP1N5*	1.5				650					
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	200			
KL731ETTP8N2*	8.2			2000	2.00	250				
KL731ETTP10N*	10				3.00	200				
KL731ETTP12N*	12			1500	5.00	150				
KL731ETTP15N*	15									
KL731ETTP18N*	18			1000						
KL731ETTP22N*	22			10	13000	0.10		650	500	
KL731ETTP27N*	27			15	10000					
KL731ETTP33N*	33			C: ± 0.2 nH	20	8000		0.15		450
KL731JTTE1N0*	1.0					5000		0.25		350
KL731JTTE1N2*	1.2	6000	0.25							
KL731JTTE1N5*	1.5	25	5000			0.50		250		
KL731JTTE1N8*	1.8									4000
KL731JTTE2N2*	2.2		3000			2500	250			
KL731JTTE2N7*	2.7		2000			1500	200			
KL731JTTE3N3*	3.3	G: $\pm 2\%$ J: $\pm 5\%$	10			1000	2.50	150		200
KL731JTTE3N9*	3.9					600	4.00	100		
KL731JTTE4N7*	4.7									
KL731JTTE5N6*	5.6			1500	1.50	200				
KL731JTTE6N8*	6.8						1000	2.50	150	
KL731JTTE8N2*	8.2			600	4.00	100				
KL731JTTE10N*	10						600	4.50	100	
KL731JTTE12N*	12			600	4.50	100				
KL731JTTE15N*	15						600	4.50	100	
KL731JTTE18N*	18			600	4.50	100				
KL731JTTE22N*	22	600	4.50				100			
KL731JTTE27N*	27			600	4.50	100				
KL731JTTE33N*	33	600	4.50				100			
KL731JTTE39N*	39			600	4.50	100				
KL731JTTE47N*	47	600	4.50				100			
KL731JTTE56N*	56			600	4.50	100				
KL731JTTE68N*	68	600	4.50				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: ±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	2500	500				
KL732ATTE8N2*	8.2	2000					
KL732ATTE10N*	10	G: ±2% J: ±5%	20	2000	1.50	400	200
KL732ATTE12N*	12			1500		300	
KL732ATTE15N*	15			1000		250	
KL732ATTE18N*	18		15	800	4.00	150	
KL732ATTE22N*	22			700			
KL732ATTE27N*	27			600			
KL732ATTE33N*	33						
KL732ATTE39N*	39						
KL732ATTE47N*	47		10		5.00		
KL732ATTE56N*	56						
KL732ATTE68N*	68						
KL732ATTE82N*	82						
KL732BTTE2N2*	2.2	C: ±0.2nH	25	9000	0.25	1000	500
KL732BTTE2N7*	2.7			7000			
KL732BTTE3N3*	3.3			6000			
KL732BTTE3N9*	3.9		35	5000	0.50	900	
KL732BTTE4N7*	4.7			4500			
KL732BTTE5N6*	5.6			4000			
KL732BTTE6N8*	6.8			3500			
KL732BTTE8N2*	8.2			3000			
KL732BTTE10N*	10		40	2500	1.00	500	
KL732BTTE12N*	12			2000			
KL732BTTE15N*	15	1500					
KL732BTTE18N*	18						
KL732BTTE22N*	22	G: ±2% J: ±5%	25	1000	2.00	400	200
KL732BTTE27N*	27			500			
KL732BTTE33N*	33			400			
KL732BTTE39N*	39						
KL732BTTE47N*	47		15				
KL732BTTE56N*	56						
KL732BTTE68N*	68						
KL732BTTE82N*	82						
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

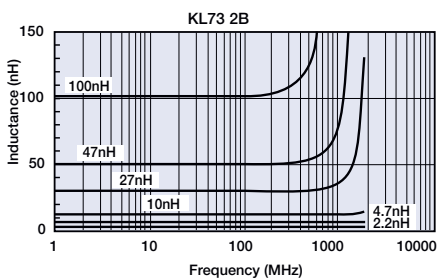
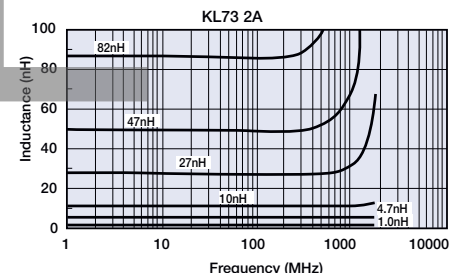
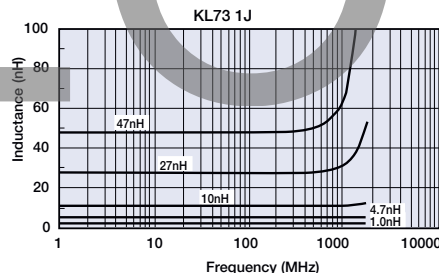
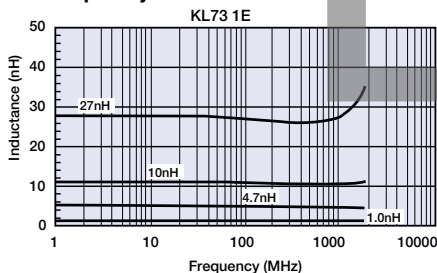
environmental applications

Performance Characteristics

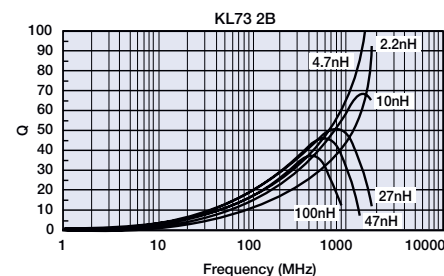
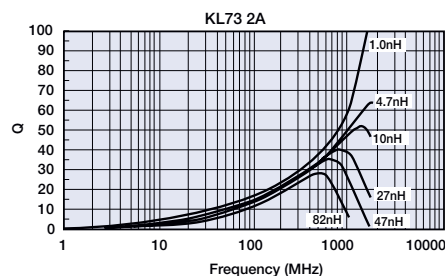
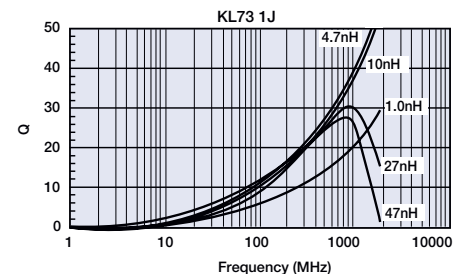
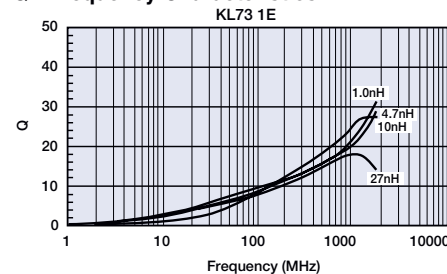
Parameter	Requirements Maximum Limit	Δ L/L Δ Q/Q Typical	Test Method
Resistance to Soldering Heat	Without distinct damage in appearance and construction Δ L/L: $\pm 2\%$, Δ Q/Q: $\pm 20\%$	Δ L/L: $\pm 0.5\%$ Δ Q/Q: $\pm 1.5\%$	260°C $\pm$ 5°C, 10s $\pm$ 1s
Rapid Change of Temperature	Without distinct 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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