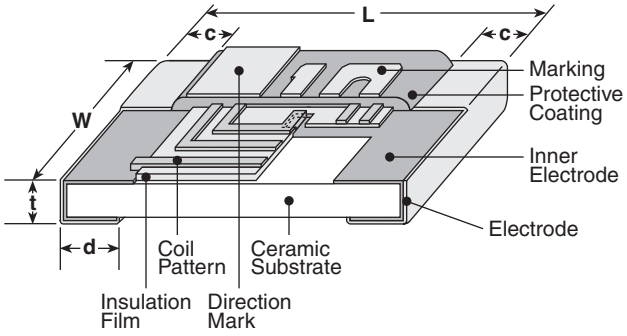
EU RoHS COMPLIANT

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 $^{+.008}_{-.004}$ (0.4 $^{+0.2}_{-0.1}$)	.024±.004 (0.6±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: ±0.1nH 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: ±0.1nH	7	14000	0.10	700	500
KL731ETTPN68B	0.68						
KL731ETTPN82B	0.82						
KL731ETTP1N0*	1.0	B: ±0.1nH C: ±0.2nH	10	12000	0.15		
KL731ETTP1N2*	1.2						
KL731ETTP1N5*	1.5			10000	0.20		
KL731ETTP1N8*	1.8						
KL731ETTP2N2*	2.2			8000	0.25	650	
KL731ETTP2N7*	2.7						
KL731ETTP3N3*	3.3			6000	0.30	600	
KL731ETTP3N9*	3.9				0.50	550	
KL731ETTP4N7*	4.7			5000		500	
KL731ETTP5N6*	5.6	G: ±2% J: ±5%			1.00	450	
KL731ETTP6N8*	6.8			4000		350	
KL731ETTP8N2*	8.2			3000			
KL731ETTP10N*	10			2500	1.50	300	
KL731ETTP12N*	12					250	
KL731ETTP15N*	15			2000	2.00	200	
KL731ETTP18N*	18		7	1500	3.00		200
KL731ETTP22N*	22				5.00	150	
KL731ETTP27N*	27						
KL731ETTP33N*	33			1000			
KL731JTTE1N0*	1.0	C: ±0.2nH	10	13000	0.10	650	500
KL731JTTE1N2*	1.2		15				
KL731JTTE1N5*	1.5		20	10000			
KL731JTTE1N8*	1.8						
KL731JTTE2N2*	2.2			8000	0.15	450	
KL731JTTE2N7*	2.7						
KL731JTTE3N3*	3.3			6000	0.25		
KL731JTTE3N9*	3.9					350	
KL731JTTE4N7*	4.7			5000	0.50		
KL731JTTE5N6*	5.6	G: ±2% J: ±5%	25				
KL731JTTE6N8*	6.8			4000			
KL731JTTE8N2*	8.2			3000			
KL731JTTE10N*	10			2500	1.0	250	
KL731JTTE12N*	12						
KL731JTTE15N*	15			2000			
KL731JTTE18N*	18		10	1500	1.50	200	200
KL731JTTE22N*	22						
KL731JTTE27N*	27			1000	2.50	150	
KL731JTTE33N*	33						
KL731JTTE39N*	39			600			
KL731JTTE47N*	47					120	
KL731JTTE56N*	56				4.00	100	
KL731JTTE68N*	68				4.50		

* 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

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		800	
KL732ATTE2N2*	2.2			8000			
KL732ATTE2N7*	2.7						
KL732ATTE3N3*	3.3			6000			
KL732ATTE3N9*	3.9						
KL732ATTE4N7*	4.7			5000	0.50	700	
KL732ATTE5N6*	5.6	G: ±2% J: ±5%		4500			
KL732ATTE6N8*	6.8			4000		500	
KL732ATTE8N2*	8.2			3000			
KL732ATTE10N*	10			2500	1.00	400	
KL732ATTE12N*	12						
KL732ATTE15N*	15			2000		300	
KL732ATTE18N*	18		20	1500			
KL732ATTE22N*	22			1000	1.50	250	
KL732ATTE27N*	27		15				200
KL732ATTE33N*	33					200	
KL732ATTE39N*	39			800			
KL732ATTE47N*	47						
KL732ATTE56N*	56		10	700	4.00	150	
KL732ATTE68N*	68				5.00		
KL732ATTE82N*	82			600			
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		900	
KL732BTTE4N7*	4.7			4500	0.50		
KL732BTTE5N6*	5.6	G: ±2% J: ±5%		4000			
KL732BTTE6N8*	6.8			3500		800	
KL732BTTE8N2*	8.2			3000			
KL732BTTE10N*	10		40	2500			
KL732BTTE12N*	12						
KL732BTTE15N*	15			2000	1.00	500	
KL732BTTE18N*	18						
KL732BTTE22N*	22			1500			
KL732BTTE27N*	27		25				200
KL732BTTE33N*	33			1000	2.00	400	
KL732BTTE39N*	39						
KL732BTTE47N*	47						
KL732BTTE56N*	56		15	500		200	
KL732BTTE68N*	68						
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

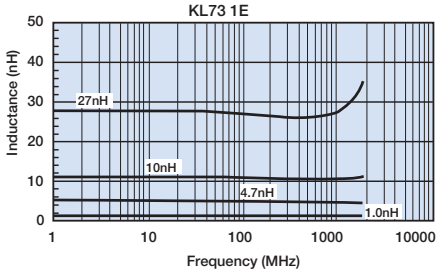
environmental applications

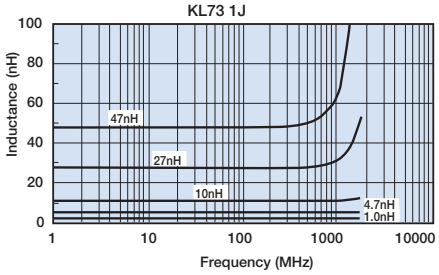
Performance Characteristics

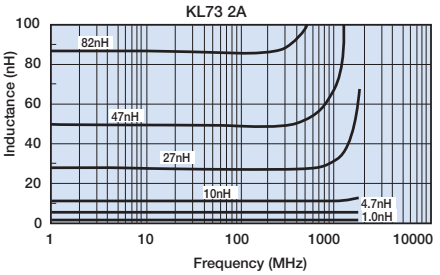
Parameter	Requirements Maximum Limit	Δ L/L Δ Q/Q Typical	Test Method
Resistance to Soldering Heat	Without distinct damage in appearance and construction Δ L/L: ±2%, Δ Q/Q: ±20%	Δ L/L: ±0.5% Δ Q/Q: ±1.5%	260°C ± 5°C, 10s ± 1s
Rapid Change of Temperature	Without distinct damage in appearance and construction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

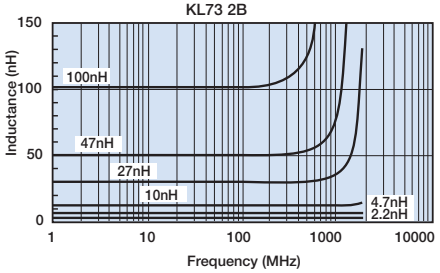
Frequency Characteristics Test equipment: HP4291B impedance analyzer (1E, 1J, 2A, 2B)

L - Frequency Characteristics

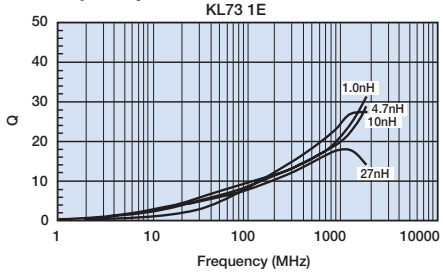


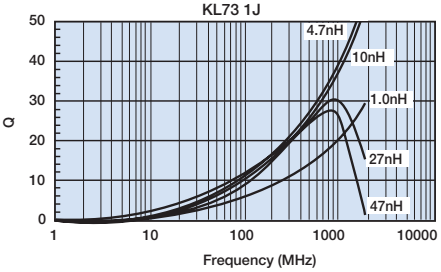


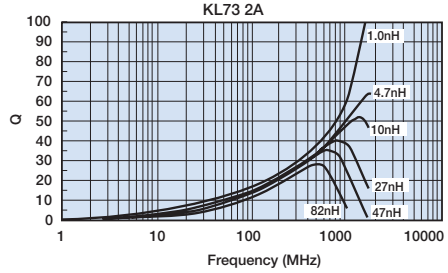


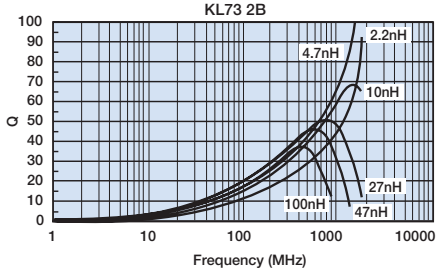


Q - Frequency Characteristics









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