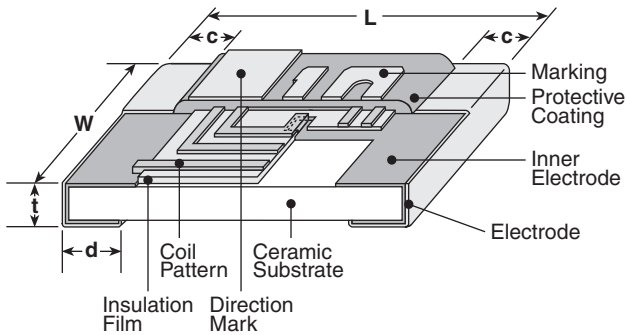


features

- 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
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	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	500					
KL731ETTP1N2*	1.2			10000	0.20							
KL731ETTP1N5*	1.5			8000	0.25							
KL731ETTP1N8*	1.8			6000	0.30							
KL731ETTP2N2*	2.2			5000	0.50							
KL731ETTP2N7*	2.7			4000	1.00							
KL731ETTP3N3*	3.3			3000	1.50							
KL731ETTP3N9*	3.9			2500	2.00							
KL731ETTP4N7*	4.7			2000	3.00							
KL731ETTP5N6*	5.6			G: $\pm 2\%$ J: $\pm 5\%$	7			1500	5.00	200	200	
KL731ETTP6N8*	6.8	1000										
KL731ETTP8N2*	8.2											
KL731ETTP10N*	10											
KL731ETTP12N*	12											
KL731ETTP15N*	15											
KL731ETTP18N*	18											
KL731ETTP22N*	22											
KL731ETTP27N*	27											
KL731ETTP33N*	33											
KL731JTTE1N0*	1.0	C: ± 0.2 nH	10	13000	0.10	650	500					
KL731JTTE1N2*	1.2		15									
KL731JTTE1N5*	1.5		20					10000				
KL731JTTE1N8*	1.8							8000	0.15			
KL731JTTE2N2*	2.2							6000	0.25			
KL731JTTE2N7*	2.7							5000	0.50			
KL731JTTE3N3*	3.3		G: $\pm 2\%$ J: $\pm 5\%$					25	4000	1.0	250	200
KL731JTTE3N9*	3.9								3000			
KL731JTTE4N7*	4.7								2500			
KL731JTTE5N6*	5.6								2000			
KL731JTTE6N8*	6.8	1500		1.50								
KL731JTTE8N2*	8.2	1000		2.50								
KL731JTTE10N*	10	10		600	4.00							
KL731JTTE12N*	12			600	4.50							
KL731JTTE15N*	15				150							
KL731JTTE18N*	18				120							
KL731JTTE22N*	22	100										
KL731JTTE27N*	27											
KL731JTTE33N*	33											
KL731JTTE39N*	39											
KL731JTTE47N*	47											
KL731JTTE56N*	56											
KL731JTTE68N*	68											

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

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	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				700		
KL732ATTE3N9*	3.9			4000						
KL732ATTE4N7*	4.7			3000						
KL732ATTE5N6*	5.6			G: $\pm 2\%$ J: $\pm 5\%$				20	2500	1.00
KL732ATTE6N8*	6.8	2000								
KL732ATTE8N2*	8.2	1500								
KL732ATTE10N*	10	15	1000		1.50	250				
KL732ATTE12N*	12		800							
KL732ATTE15N*	15	10	10		4.00	200				
KL732ATTE18N*	18						700			
KL732ATTE22N*	22						600	5.00	150	
KL732ATTE27N*	27		9000							
KL732ATTE33N*	33		7000							
KL732ATTE39N*	39		C: $\pm 0.2\text{nH}$	25		6000	0.25	1000		
KL732ATTE47N*	47	5000								
KL732ATTE56N*	56	4500								
KL732ATTE68N*	68	35		4000	0.50	900				
KL732ATTE82N*	82			3500						
KL732BTTE2N2*	2.2			3000		800				
KL732BTTE2N7*	2.7			2500						
KL732BTTE3N3*	3.3			2000						
KL732BTTE3N9*	3.9			G: $\pm 2\%$ J: $\pm 5\%$		40		1500	1.00	500
KL732BTTE4N7*	4.7							1000		
KL732BTTE5N6*	5.6	500								
KL732BTTE6N8*	6.8	25	1000		2.00	400				
KL732BTTE8N2*	8.2						500			
KL732BTTE10N*	10	15	15		400					
KL732BTTE12N*	12					400				
KL732BTTE15N*	15		500							
KL732BTTE18N*	18		400							
KL732BTTE22N*	22	100	400		5.00	200				
KL732BTTE27N*	27									
KL732BTTE33N*	33									
KL732BTTE39N*	39									
KL732BTTE47N*	47	100	400	5.00	200					
KL732BTTE56N*	56									
KL732BTTE68N*	68									
KL732BTTE82N*	82									
KL732BTTE100*	100	100	400	5.00	200					

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

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 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)