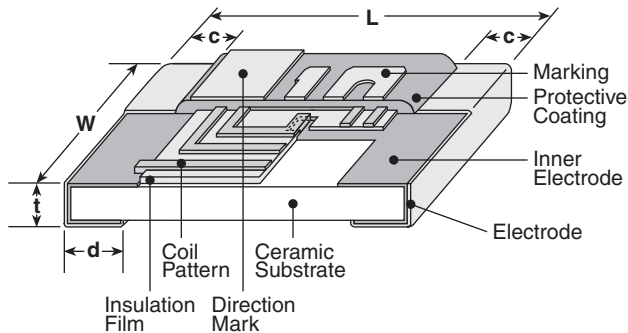


features

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

* 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		800						
KL732ATTE1N8*	1.8		8000									
KL732ATTE2N2*	2.2		6000	0.50	700							
KL732ATTE2N7*	2.7		5000		500							
KL732ATTE3N3*	3.3		4500		1.00	400						
KL732ATTE3N9*	3.9		4000			300						
KL732ATTE4N7*	4.7		3000	1.50		250						
KL732ATTE5N6*	5.6		2500			200						
KL732ATTE6N8*	6.8	2000	4.00		150							
KL732ATTE8N2*	8.2	1500			5.00	150						
KL732ATTE10N*	10	1000										
KL732ATTE12N*	12	800										
KL732ATTE15N*	15	700										
KL732ATTE18N*	18	G: $\pm 2\%$ J: $\pm 5\%$	20	600	1.00	300	200					
KL732ATTE22N*	22		15	250				1.50	250			
KL732ATTE27N*	27			1000						2.00	200	
KL732ATTE33N*	33		800	3.00								150
KL732ATTE39N*	39		10		700	4.00						
KL732ATTE47N*	47				600			5.00	150			
KL732ATTE56N*	56		25		2500					0.25	1000	
KL732ATTE68N*	68			1500	0.50							900
KL732ATTE82N*	82			1000		1.00						
KL732BTTE2N2*	2.2			700				2.00	400			
KL732BTTE2N7*	2.7	600	2.00	200								
KL732BTTE3N3*	3.3	500			2.00		200					
KL732BTTE3N9*	3.9	400				2.00				200		
KL732BTTE4N7*	4.7	300						2.00	200			
KL732BTTE5N6*	5.6	200	2.00	200								
KL732BTTE6N8*	6.8	150			2.00		200					
KL732BTTE8N2*	8.2	100				2.00				200		
KL732BTTE10N*	10	70						2.00	200			
KL732BTTE12N*	12	60	2.00	200								
KL732BTTE15N*	15	50			2.00		200					
KL732BTTE18N*	18	40				2.00				200		
KL732BTTE22N*	22	30						2.00	200			
KL732BTTE27N*	27	20	2.00	200								
KL732BTTE33N*	33	15			2.00		200					
KL732BTTE39N*	39	10				2.00				200		
KL732BTTE47N*	47	7						2.00	200			
KL732BTTE56N*	56	5	2.00	200								
KL732BTTE68N*	68	3			2.00		200					
KL732BTTE82N*	82	2				2.00				200		
KL732BTTE100*	100	1						2.00	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)