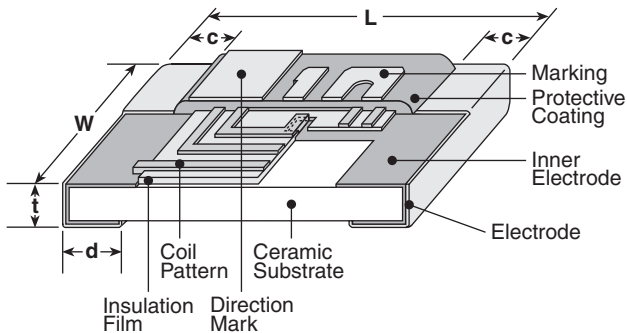


features

- Excellent for high frequency applications
- Low DC resistance and high Q
- Suitable for reflow and wave soldering
- 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

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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	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	G: $\pm 2\%$ J: $\pm 5\%$	7	2500	2.00	300	200					
KL731ETTP4N7*	4.7			2000	3.00							
KL731ETTP5N6*	5.6			1500	5.00							
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		25					4000	3000	1.0	250	200
KL731JTTE3N9*	3.9							2500				
KL731JTTE4N7*	4.7							2000				
KL731JTTE5N6*	5.6							1500				
KL731JTTE6N8*	6.8	1000		2.50								
KL731JTTE8N2*	8.2	600		4.00								
KL731JTTE10N*	10	G: $\pm 2\%$ J: $\pm 5\%$	10	2500	4.50	100	200					
KL731JTTE12N*	12			2000								
KL731JTTE15N*	15											
KL731JTTE18N*	18											
KL731JTTE22N*	22											
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 pages 216.

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				1.00	700			
KL732ATTE3N9*	3.9			4000					500			
KL732ATTE4N7*	4.7			3000					400			
KL732ATTE5N6*	5.6			G: $\pm 2\%$ J: $\pm 5\%$				20	2500	1.50	300	200
KL732ATTE6N8*	6.8	1500										
KL732ATTE8N2*	8.2	1000										
KL732ATTE10N*	10	15	800		4.00	200						
KL732ATTE12N*	12		700									
KL732ATTE15N*	15		600			150						
KL732ATTE18N*	18	C: $\pm 0.2\text{nH}$	25		9000	0.25	1000	500				
KL732ATTE22N*	22				7000							
KL732ATTE27N*	27				6000							
KL732ATTE33N*	33		35		5000		0.50		900			
KL732ATTE39N*	39			4500								
KL732ATTE47N*	47			4000	800							
KL732ATTE56N*	56			3500								
KL732ATTE68N*	68			3000								
KL732ATTE82N*	82			G: $\pm 2\%$ J: $\pm 5\%$	40				2500	2.00	500	200
KL732ATTE100*	100								2000			
		1500										
		25	1000		400							
			500									
			400									
		15	500		200							
			400									

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

For complete environmental specifications, please refer to pages 216.

Specifications given herein may be changed at any time without prior notice. Please confirm technical specifications before you order and/or use.

1/10/06

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)