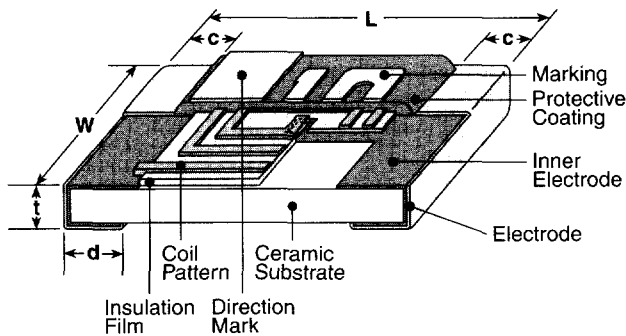


features

- 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 three-figure on blue protective coating

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 0.1)	.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 .004 (0.4 \pm 0.1)	.024 \pm .004 (0.6 \pm 0.1)

Inductors

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 - 47
2A	Ex. = 2.2 = 2.2nH	Ex. = 15 = 15nH
2B	Ex. = 2N2 = 2.2nH	Ex. = 15N = 15nH

No marking on 1E (0402)

ordering information

Old Part #	KL73	2A		TE	4N7	G
New Part #	KL73	2A	L	TE	4N7	G
	Type	Size Code	Termination Material	Packaging	Nominal Inductance	Tolerance
		1E: 0402 1J: 0603 2A: 0805 2B: 1206	L: SnPb T: Sn	TP: 7" embossed plastic 2mm pitch (1E only - 10,000 pieces/reel) TE: 7" embossed plastic (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.

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

applications and ratings

Part Designation	Inductance (nH)	Inductance Tolerance	Quality Factor Minimum (MHz)	Self Resonant Frequency Minimum (MHz)	DC Resistance Maximum (Ω)	Allowable DC Current Maximum (mA)	Measured Frequency (MHz)
KL731E*TPN56B	0.56	B: ± 0.1 nH	7	14000	0.10	700	500
KL731E*TPN68B	0.68						
KL731E*TPN82B	0.82						
KL731E*TP1N0**	1.0	C: ± 0.2 nH	10	12000	0.15	200	
KL731E*TP1N2**	1.2			10000	0.20		
KL731E*TP1N5**	1.5						
KL731E*TP1N8**	1.8			8000	0.25		
KL731E*TP2N2**	2.2						
KL731E*TP2N7**	2.7			6000	0.30		
KL731E*TP3N3**	3.3						
KL731E*TP3N9**	3.9			5000	0.50		
KL731E*TP4N7**	4.7						
KL731E*TP5N6**	5.6			G: $\pm 2\%$ J: $\pm 5\%$	7		4000
KL731E*TP6N8**	6.8	3000	450				
KL731E*TP8N2**	8.2					2500	300
KL731E*TP10N**	10	2000	250				
KL731E*TP12N**	12					1500	200
KL731E*TP15N**	15	1000	150				
KL731E*TP18N**	18					1500	150
KL731E*TP22N**	22	700	150				
KL731E*TP27N**	27					1000	150
KL731E*TP33N**	33	10	13000				
KL731J*TE1N0**	1.0			10			
KL731J*TE1N2**	1.2	15					
KL731J*TE1N5**	1.5	20	10000	0.15	450		
KL731J*TE1N8**	1.8						
KL731J*TE2N2**	2.2					8000	0.25
KL731J*TE2N7**	2.7						
KL731J*TE3N3**	3.3					6000	0.50
KL731J*TE3N9**	3.9						
KL731J*TE4N7**	4.7					5000	350
KL731J*TE5N6**	5.6						
KL731J*TE6N8**	6.8					4000	1.0
KL731J*TE8N2**	8.2						
KL731J*TE10N**	10	2500	250				
KL731J*TE12N**	12						
KL731J*TE15N**	15	2000	200				
KL731J*TE18N**	18						
KL731J*TE22N**	22	1500	200				
KL731J*TE27N**	27						
KL731J*TE33N**	33	1000	150				
KL731J*TE39N**	39						
KL731J*TE47N**	47	600	120				
KL731J*TE56N**	56						
KL731J*TE68N**	68	100	100				
KL731J*TE82N**	82						

* Add termination material character (L, T)

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

For complete environmental specifications, please refer to pages 116-117.

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

applications and ratings (continued)

Part Designation	Inductance (nH)	Inductance Tolerance	Quality Factor Minimum (MHz)	Self Resonant Frequency Minimum (MHz)	DC Resistance Maximum (Ω)	Allowable DC Current Maximum (mA)	Measured Frequency (MHz)
KL732A*TE1N0**	1.0	C: ±0.2nH	20	13000	0.25	900	500
KL732A*TE1N2**	1.2						
KL732A*TE1N5**	1.5						
KL732A*TE1N8**	1.8						
KL732A*TE2N2**	2.2						
KL732A*TE2N7**	2.7						
KL732A*TE3N3**	3.3						
KL732A*TE3N9**	3.9						
KL732A*TE4N7**	4.7						
KL732A*TE5N6**	5.6	G: ±2% J: ±5%	25	5000	0.50	700	200
KL732A*TE6N8**	6.8						
KL732A*TE8N2**	8.2						
KL732A*TE10N**	10		20	4500	1.00	500	
KL732A*TE12N**	12						
KL732A*TE15N**	15						
KL732A*TE18N**	18		15	4000	1.50	400	
KL732A*TE22N**	22						
KL732A*TE27N**	27						
KL732A*TE33N**	33		10	3000	4.00	300	
KL732A*TE39N**	39						
KL732A*TE47N**	47						
KL732A*TE56N**	56		20	800	5.00	250	
KL732A*TE68N**	68						
KL732A*TE82N**	82						
KL732B*TE2N2**	2.2	C: ±0.2nH	25	9000	0.25	1000	500
KL732B*TE2N7**	2.7						
KL732B*TE3N3**	3.3						
KL732B*TE3N9**	3.9						
KL732B*TE4N7**	4.7						
KL732B*TE5N6**	5.6						
KL732B*TE6N8**	6.8						
KL732B*TE8N2**	8.2						
KL732B*TE10N**	10						
KL732B*TE12N**	12	G: ±2% J: ±5%	35	7000	0.50	900	
KL732B*TE15N**	15						
KL732B*TE18N**	18						
KL732B*TE22N**	22		40	6000	1.00	800	
KL732B*TE27N**	27						
KL732B*TE33N**	33						
KL732B*TE39N**	39		25	5000	2.00	500	
KL732B*TE47N**	47						
KL732B*TE56N**	56						
KL732B*TE68N**	68	15	4500	2.00	400		
KL732B*TE82N**	82						
KL732B*TE100**	100						
KL732B*TE100**	100			400		200	

Inductors

* Add termination material character (L, T)

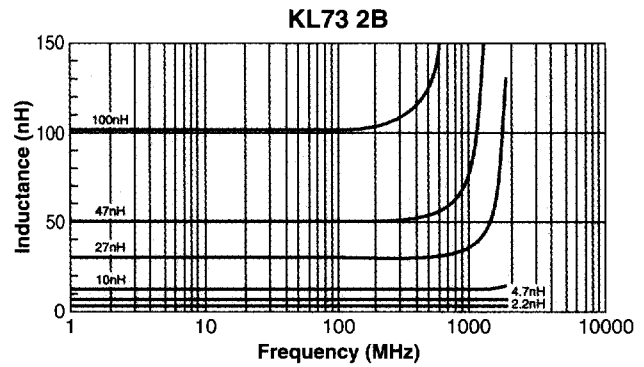
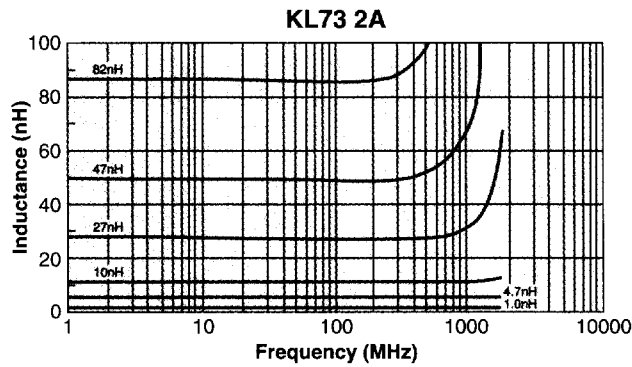
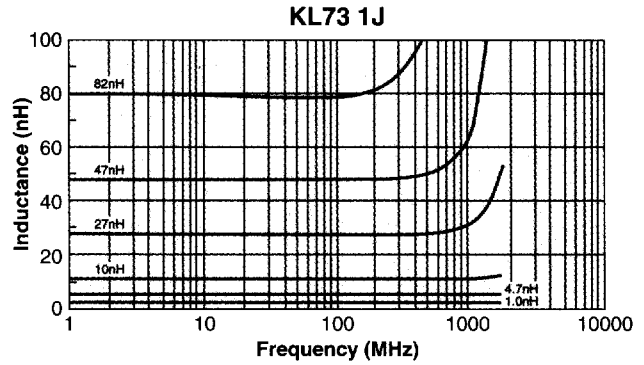
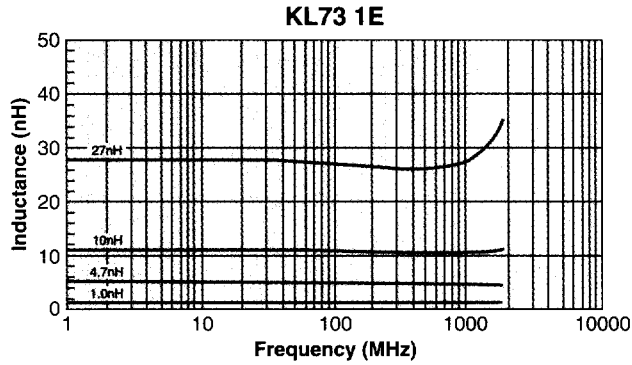
** Add tolerance character (B, C, G, J)

For complete environmental specifications, please refer to pages 116-117.

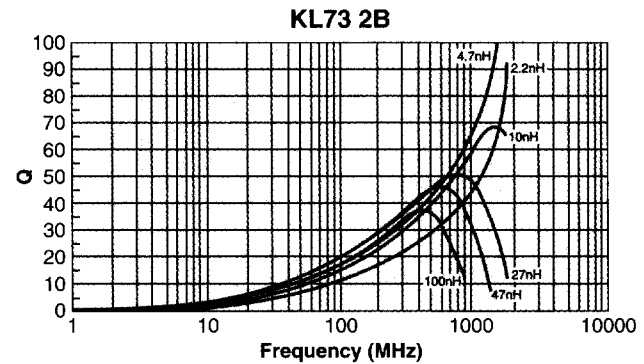
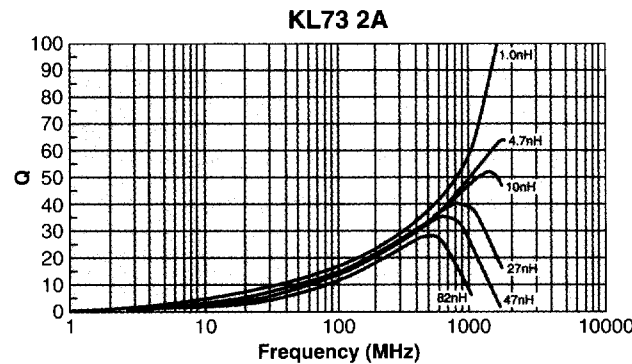
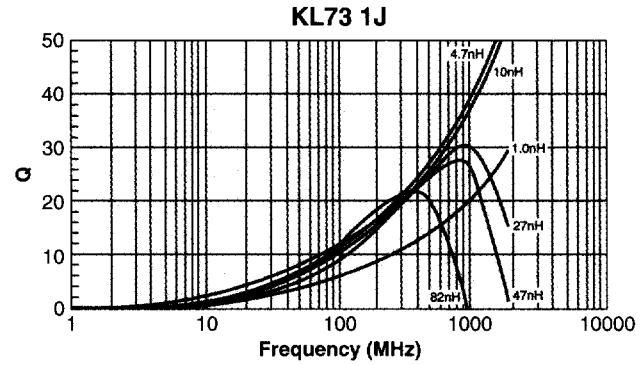
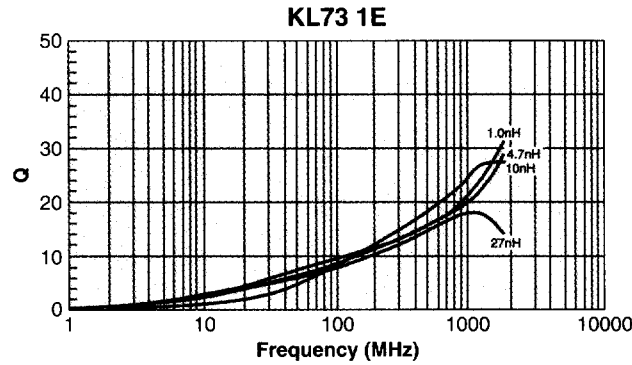
Specifications given herein may be changed at any time without prior notice. Please confirm technical specifications before you order and/or use.

environmental applications

L-Frequency Characteristics



Q-Frequency Characteristics



Test equipment: HP4291B impedance analyzer

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

environmental applications (continued)

Performance Characteristics

Parameter	Maximum ΔL	Test Method
Terminal Pull Strength	No evidence of breakdown	Terminals shall withstand a pull of 0.5Kg in a horizontal direction
Terminal Bending Strength	No evidence of breakdown $\Delta R/R \pm 1\%$, $\Delta L/L \pm 2\%$ $\Delta Q/Q \pm 20\%$	3mm deflection in either direction
Resistance to Solder Heat	No evidence of outer damage $\Delta L/L \pm 2\%$ $\Delta Q/Q \pm 20\%$	Immerse in solder (H63A) @ $260^\circ \pm 5^\circ\text{C}$ for 10 seconds ± 1 second
Solderability	95% of the terminal should be covered with new solder	Immerse in solder (H63A) @ $230^\circ \pm 5^\circ\text{C}$ for 3 seconds ± 0.5 second
Low Temperature Characteristics	$\Delta L/L \pm 2\%$ $\Delta Q/Q \pm 20\%$	Store @ $-40^\circ\text{C} \pm 3^\circ\text{C}$ for 1000 hours
Resistance to Heat	$\Delta L/L \pm 2\%$ $\Delta Q/Q \pm 20\%$	Store @ $125^\circ\text{C} \pm 2^\circ\text{C}$ for 1000 hours
Thermal Shock	$\Delta L/L \pm 2\%$ $\Delta Q/Q \pm 20\%$	-40°C for 30 minutes and $+125^\circ\text{C}$ for 30 minutes, 100 cycles
Moisture Endurance	No evidence of damage $\Delta L/L \pm 2\%$ $\Delta Q/Q \pm 20\%$	$40^\circ\text{C} \pm 2^\circ\text{C}$, 90 - 95% RH, 1000 hours
Vibration	No evidence of breakdown $\Delta L/L \pm 2\%$ $\Delta Q/Q \pm 20\%$	2 hours in each direction of X, Y, Z on PCB at a frequency range of 10 - 55 - 10Hz with 1.5mm amplitude
Dropping	No evidence of damage $\Delta L/L \pm 2\%$ $\Delta Q/Q \pm 20\%$	MIL-STD-202, Method 213, Item 4.1 condition C
Resistance to Solvents	No outer damage and markings must remain legible	MIL-STD-202, Method 215