

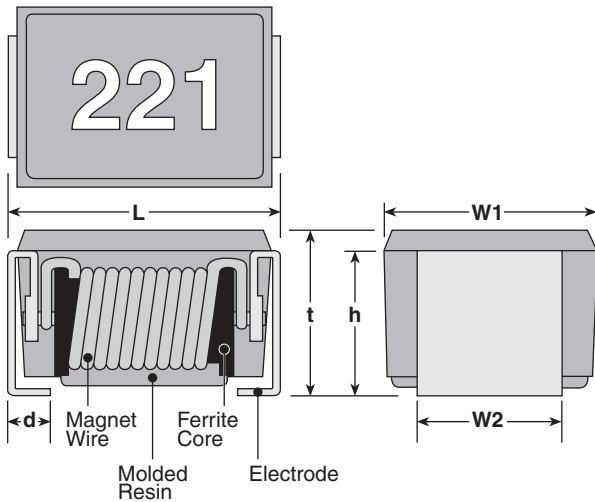


features

- UL94V0 molded epoxy case
- Suitable for reflow and wave soldering
- 1210 size - surface mount style
- High Q value achieved by wirewound structure
- Marking: Black body color with white marking

Inductors

dimensions and construction



Type	Dimensions inches (mm)					
	L	W1	W2	t	h	d
KL32	.126±.008 (3.2±0.2)	.098±.008 (2.5±0.2)	.067±.004 (1.7±0.1)	.087±.008 (2.2±0.2)	.075±.004 (1.9±0.1)	.02 nominal (.5 nominal)

Inductance Marking

Value	Code
0.005μH - 0.082μH	005 - 082
0.10μH - 8.2μH	R10 - 8R2 R indicates decimal point.
10μH - 330μH	100 - 331 1st two figures are significant, the last figure indicates the number of zeros to follow.

ordering information

New Part #	KL	32	C	TE	101	J
Type		Size	Termination Material	Packaging	Nominal Inductance	Tolerance
		1210 size	C: SnCu L: SnPb	TE: 7" embossed plastic TED: 10" embossed plastic (TE: 2,000 pieces/reel) (TED: 4,000 pieces/reel)	Reference inductance marking chart	J: ±5% K: ±10% M: ±20%

For further information on packaging, please refer to Appendix A.

applications and ratings

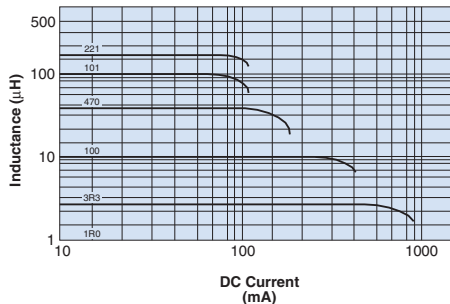
Part Designation	Inductance (μH)	Inductance Tolerance	Quality Factor Minimum	Self Resonant Frequency Minimum (MHz)	DC Resistance Maximum (Ω)	Allowable DC Current Maximum (mA)	Measured Frequency (MHz)
KL32*TE005**	0.005	M: ±20%	11	2700	0.12	450	100
KL32*TE010**	0.010	K: ±10% M: ±20%	15	2500	0.13		
KL32*TE012**	0.012		17	2300	0.14		
KL32*TE015**	0.015		19	2100	0.16		
KL32*TE018**	0.018		21	1900	0.18		
KL32*TE022**	0.022		23	1700	0.20		
KL32*TE027**	0.027			1500	0.22		
KL32*TE033**	0.033	J: ±5% K: ±10% M: ±20%	25	1400	0.24		
KL32*TE039**	0.039			1300	0.27		
KL32*TE047**	0.047			1200	0.30		
KL32*TE056**	0.056		26	1100	0.33		
KL32*TE068**	0.068			1000	0.36		
KL32*TE082**	0.082		27	900	0.40		
KL32*TER10**	0.10			700	0.44		
KL32*TER12**	0.12		28	500	0.22		
KL32*TER15**	0.15			450	0.25		
KL32*TER18**	0.18			400	0.28		
KL32*TER22**	0.22			350	0.32		
KL32*TER27**	0.27			320	0.36		
KL32*TER33**	0.33			300	0.40		
KL32*TER39**	0.39			250	0.45		
KL32*TER47**	0.47			220	0.50		
KL32*TER56**	0.56	180		0.55			
KL32*TER68**	0.68	160		0.60			
KL32*TER82**	0.82	140		0.65			
KL32*TE1R0**	1.0	30		120	0.70	400	7.96
KL32*TE1R2**	1.2			100	0.75	390	
KL32*TE1R5**	1.5			85	0.85	370	
KL32*TE1R8**	1.8			80	0.90	350	
KL32*TE2R2**	2.2		75	1.0	320		
KL32*TE2R7**	2.7		70	1.1	290		
KL32*TE3R3**	3.3		60	1.2	260		
KL32*TE3R9**	3.9		55	1.3	250		
KL32*TE4R7**	4.7		50	1.5	220		
KL32*TE5R6**	5.6		47	1.6	200		
KL32*TE6R8**	6.8		43	1.8	180		
KL32*TE8R2**	8.2		40	2.0	170		
KL32*TE100**	10		36	2.1	150	2.52	
KL32*TE120**	12		33	2.5	140		
KL32*TE150**	15		30	2.8	130		
KL32*TE180**	18	27	3.3	120			
KL32*TE220**	22	25	3.7	110			
KL32*TE270**	27	20	5.0	80			
KL32*TE330**	33	17	5.6	70			
KL32*TE390**	39	16	6.4	65			
KL32*TE470**	47	15	7.0	60			
KL32*TE560**	56	13	8.0	55			
KL32*TE680**	68	12	9.0	50			
KL32*TE820**	82	11		45			
KL32*TE101**	100	20	10	10	40		0.796
KL32*TE121**	120		10	11	70		
KL32*TE151**	150		8	15	65		
KL32*TE181**	180			17	60		
KL32*TE221**	220		7	21			
KL32*TE271**	270		6	28	50		
KL32*TE331**	330		5	34			

* Add termination material character (C, L)
 ** Add tolerance character (J, K, M)

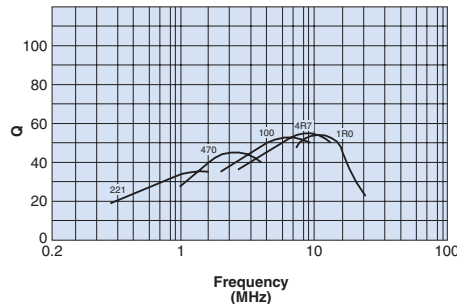
For complete environmental specifications, please refer to page 166.

environmental applications

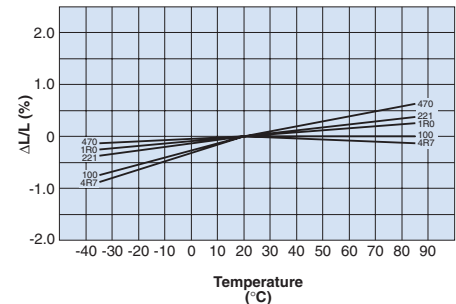
DC Current Characteristics



Q-Frequency Characteristics



Temperature Characteristics



Performance Characteristics

Parameter	Maximum Δ L	Test Method
Low Temperature Characteristics	No evidence of damage Δ L/L within ±5% Δ Q/Q within ±20%	Store @ -40°C ± 2°C for 1000 hours
Resistance to Heat	No evidence of damage Δ L/L within ±5% Δ Q/Q within ±30%	Store @ +100°C ± 2°C for 1000 hours
Thermal Shock	No evidence of damage Δ L/L within ±5%	100 cycles between -25°C/hour and +100°C/hour
Temperature Characteristics	Δ L/L within ±10%	Δ L/L to be measured at the temperatures between -25°C and +85°C, reference to the inductance @ 25°C
Moisture Endurance	No evidence of damage Δ L/L within ±5% Δ Q/Q within ±30%	40°C ± 2°C, 90 - 95% RH, 1000 hours
Resistance to Solvents	No damage and markings must remain legible	MIL-STD-202, Method 215
Terminal Pull Strength	No evidence of damage	Terminals shall withstand a pull of 4.9N in a horizontal direction
Terminal Bending Strength	No evidence of breakdown	Specimen shall be soldered and force applied to the opposite side to cause a 3mm deflection
Vibration	Δ L/L within ±3%	2 hours in each direction of X, Y, Z on PCB at a frequency range of 10 - 55 - 10Hz with 1.5mm amplitude
Resistance to Solder Heat	No evidence of outer damage Δ L/L within ±3%	Immerse in solder @ 260° ± 5°C for 10 seconds ± 1 second
Solderability	95% of the terminal should be covered with new solder	Immerse in solder @ 230° ± 5°C for 3 seconds ± 0.5 second
DC Superimposition	Δ L/L within ±10%	When the allowable current is applied, inductance to be measured by LCR - meter
Dielectric Withstanding Voltage	No evidence of flaming, fuming or breakdown	5 seconds @ DC 1000V applied between both terminals and case
Insulation Resistance	1000MΩ and over	1 minute @ DC 500V measured between both terminals and case
Storage Temperature Range	-40°C to +100°C	—
Operating Temperature Range	-40°C to +100°C	—