KOA SPEER ELECTRONICS, INC.

KL32

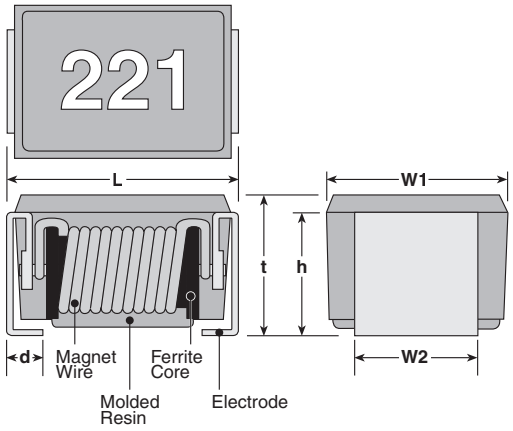
1210 molded wirewound inductor

EU RoHS COMPLIANT

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
- Products with lead-free terminations meet EU RoHS requirements

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	T	TE	101	J
Type	Size	Termination Material	Packaging	Nominal Inductance	Tolerance
	1210 size	T: Sn	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)
KL32TTE005*	0.005	M: ±20%	11	2700	0.12	450	100
KL32TTE010*	0.010	K: ±10% M: ±20%	15	2500	0.13		
KL32TTE012*	0.012		17	2300	0.14		
KL32TTE015*	0.015		19	2100	0.16		
KL32TTE018*	0.018		21	1900	0.18		
KL32TTE022*	0.022		23	1700	0.20		
KL32TTE027*	0.027			1500	0.22		
KL32TTE033*	0.033	J: ±5% K: ±10% M: ±20%	25	1400	0.24		
KL32TTE039*	0.039			1300	0.27		
KL32TTE047*	0.047		26	1200	0.30		
KL32TTE056*	0.056			1100	0.33		
KL32TTE068*	0.068		27	1000	0.36		
KL32TTE082*	0.082			900	0.40		
KL32TTER10*	0.10		28	700	0.44		

2/24/08

applications and ratings (continued)

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)
KL32TTER12*	0.12	J: ±5% K: ±10% M: ±20%	30	500	0.22		25.2
KL32TTER15*	0.15			450	0.25		
KL32TTER18*	0.18			400	0.28		
KL32TTER22*	0.22			350	0.32		
KL32TTER27*	0.27			320	0.36		
KL32TTER33*	0.33			300	0.40		
KL32TTER39*	0.39			250	0.45		
KL32TTER47*	0.47			220	0.50		
KL32TTER56*	0.56			180	0.55		
KL32TTER68*	0.68			160	0.60		
KL32TTER82*	0.82			140	0.65		
KL32TTE1R0*	1.0	J: ±5% K: ±10% M: ±20%		120	0.70	400	7.96
KL32TTE1R2*	1.2			100	0.75	390	
KL32TTE1R5*	1.5			85	0.85	370	
KL32TTE1R8*	1.8			80	0.90	350	
KL32TTE2R2*	2.2			75	1.0	320	
KL32TTE2R7*	2.7			70	1.1	290	
KL32TTE3R3*	3.3			60	1.2	260	
KL32TTE3R9*	3.9			55	1.3	250	
KL32TTE4R7*	4.7			50	1.5	220	
KL32TTE5R6*	5.6			47	1.6	200	
KL32TTE6R8*	6.8			43	1.8	180	
KL32TTE8R2*	8.2			40	2.0	170	
KL32TTE100*	10			36	2.1	150	2.52
KL32TTE120*	12			33	2.5	140	
KL32TTE150*	15			30	2.8	130	
KL32TTE180*	18			27	3.3	120	
KL32TTE220*	22			25	3.7	110	
KL32TTE270*	27			20	5.0	80	
KL32TTE330*	33			17	5.6	70	
KL32TTE390*	39			16	6.4	65	
KL32TTE470*	47			15	7.0	60	
KL32TTE560*	56			13	8.0	55	
KL32TTE680*	68			12	9.0	50	
KL32TTE820*	82			11	10	45	
KL32TTE101*	100		20	10		40	0.796
KL32TTE121*	120				11	70	
KL32TTE151*	150			8	15	65	
KL32TTE181*	180			7	17	60	
KL32TTE221*	220				21	50	
KL32TTE271*	270			6	28		
KL32TTE331*	330			5	34		

* Add tolerance character (J, K, M)

Performance Characteristics

Parameter	Requirements Maximum Δ L/L Limit	Typical	Test Method
Resistance to Soldering Heat	Δ L/L: ±3%	Δ L/L: ±1.5%	260°C ± 5°C, 10s ± 1s
Heat Shock	Δ L/L: ±5%	Δ L/L: ±1.1%	-25°C (1 hour)/ +100°C (1 hour) 100 cycles
Low Temperature Operation	Δ L/L: ±5%, Δ Q/Q: ±20%	Δ L/L: ±0.9% Δ Q/Q: ±5.0%	-40°C ± 2°C, 1000h
High Temperature Exposure	Δ L/L: ±5%, Δ Q/Q: ±30%	Δ L/L: ±0.8% Δ Q/Q: ±5.0%	100°C ± 2°C, 1000h
Moisture Exposure	Δ L/L: ±5%, Δ Q/Q: ±30%	Δ L/L: ±1.3% Δ Q/Q: ±5.2%	40°C ± 2°C, 90%~95%RH, 1000h
Resistance to Solvent	No damage and marking shall be legible	—	Accordance with MIL-STD-202F Method 215

For complete environmental specifications, please refer to www.koaspeer.com