

AXIAL LEADED INDUCTORS

WAVE

FEATURES

- Extremely reliable inductors that are ideal for automatic insertion.
- Highly efficient automated production processes can provide high quality inductors in large volumes.
- Wide selection of configurations including axial leaded, formed radial leads and bulk products to meet most manufacturing needs.

APPLICATIONS

- Use for TVs, DVD, audio equipment, communication instrument, tuner, and general electrical instrument.

ORDERING CODE

L
A
L
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0
2
T
A
R
2
2
K
○
○
○
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○

1 Type

LA	Axial leaded inductor
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2 Product Specification

L△	Standard type
N△	High current type
P△	Standard type (Lead diameter : 0.45φmm)

△=Blank space

3 Dimensions (L×D) (mm) max

02	3.4×2.3 (LAL/LAP) 3.6×2.4 (LAN)
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4 Lead configurations

KR	Formed lead/bulk
NA	Axial lead/bulk
TA	Axial lead (26mm lead space) /ammo pack
TB	Axial lead (52mm lead space) /ammo pack
VD	Formed lead/ammo pack

5 Nominal inductance [μH]

example	
1R5	1.5
120	12

※R=decimal point

6 Inductance tolerance [%]

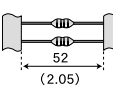
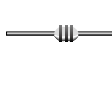
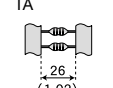
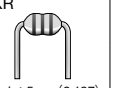
J	±5
K	±10

7 Internal code

△△△△△	Standard product
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△=Blank space

EXTERNAL DIMENSIONS/STANDARD QUANTITY

Type	Dimensions [mm] (inch)			Taped		Bulk		Standard Quantity (pcs)				
	L	φD	φd	Straight	Formed	Straight	Formed	Lead Configuration Code				
								TA	TB	VD	NA	KR
LAL02	3.4max. (0.134max.)	2.3max. (0.091max.)	0.5±0.05 (0.018±0.002)	TB 	VD  Pitch : 5mm (0.197)	NA 	---	2,000		500		2,000
LAP02	3.4max. (0.134max.)	2.3max. (0.091max.)	0.45±0.05 (0.018±0.002)	TA 	---	---	KR  Pitch : 5mm (0.197)	2,000	—		2,000	
LAN02	3.6max. (0.142max.)	2.4max. (0.094max.)		---	---	---	---	2,000		—		2,000

Unit : mm (inch)

AVAILABLE INDUCTANCE RANGE

Range	Type	LAL/LAP02		LAN02	
		I _{max} [A]	R _{dc} max[Ω]	I _{max} [A]	R _{dc} max[Ω]
Inductance [μH]	0.1	270	0.8	500	0.32
	1				
	10				
	100				
	1000				

LAL/LAP02: 0.22, 220
 LAN02: 0.12, 470

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● LAL/LAP02

Ordering code		EHS (Environmental Hazardous Substances)	Inductance [μ H]	Inductance Tolerance	Q (min.)	Measuring frequency [MHz]	Self-resonant frequency [MHz] (min.)	DC Resistance [Ω] (max.)	Rated current [mA] (max.)
LA□ 02 ○ R22K		RoHS	0.22	±10%	35	25.2	450	0.40	400
LA□ 02 ○ R27K		RoHS	0.27				410	0.43	380
LA□ 02 ○ R33K		RoHS	0.33				360	0.48	370
LA□ 02 ○ R39K		RoHS	0.39				300	0.51	350
LA□ 02 ○ R47K		RoHS	0.47				230	0.56	330
LA□ 02 ○ R56K		RoHS	0.56				210	0.61	320
LA□ 02 ○ R68K		RoHS	0.68				190	0.67	310
LA□ 02 ○ R82K		RoHS	0.82				170	0.74	290
LA□ 02 ○ 1R0K		RoHS	1.0				150	0.80	270
LA□ 02 ○ 1R2K		RoHS	1.2		40	7.96	110	0.9	260
LA□ 02 ○ 1R5K		RoHS	1.5				80	1.0	250
LA□ 02 ○ 1R8K		RoHS	1.8				60	1.1	240
LA□ 02 ○ 2R2K		RoHS	2.2				45	1.2	230
LA□ 02 ○ 2R7K		RoHS	2.7				40	1.3	220
LA□ 02 ○ 3R3K		RoHS	3.3				38	1.4	210
LA□ 02 ○ 3R9K		RoHS	3.9				35	1.6	200
LA□ 02 ○ 4R7K		RoHS	4.7				32	1.7	190
LA□ 02 ○ 5R6K		RoHS	5.6				30	1.9	180
LA□ 02 ○ 6R8K		RoHS	6.8				28	2.0	175
LA□ 02 ○ 8R2K		RoHS	8.2				26	2.2	165
LA□ 02 ○ 100K		RoHS	10				24	2.5	160
LA□ 02 ○ 120K		RoHS	12			2.52	22	2.5	150
LA□ 02 ○ 150K		RoHS	15				20	2.8	145
LA□ 02 ○ 180K		RoHS	18				18	3.1	140
LA□ 02 ○ 220K		RoHS	22				17	3.4	130
LA□ 02 ○ 270K		RoHS	27				16	4.3	80
LA□ 02 ○ 330K		RoHS	33				14	4.7	76
LA□ 02 ○ 390K		RoHS	39				13	5.2	74
LA□ 02 ○ 470K		RoHS	47				12	5.8	70
LA□ 02 ○ 560K		RoHS	56				11	6.4	68
LA□ 02 ○ 680K		RoHS	68				10	7.2	64
LA□ 02 ○ 820K		RoHS	82				9.5	11	46
LA□ 02 ○ 101K		RoHS	100				9.0	12	44
LA□ 02 ○ 121K		RoHS	120		30	0.796	8.0	13	42
LA□ 02 ○ 151K		RoHS	150				6.0	16	39
LA□ 02 ○ 181K		RoHS	180				5.5	18	37
LA□ 02 ○ 221K		RoHS	220				5.0	20	35

□ Please specify the Product Specification (Lead) code. (L: standard 0.5mm or P: 0.45mm)
 ○ Please specify the Lead configuration code.

● FAN02

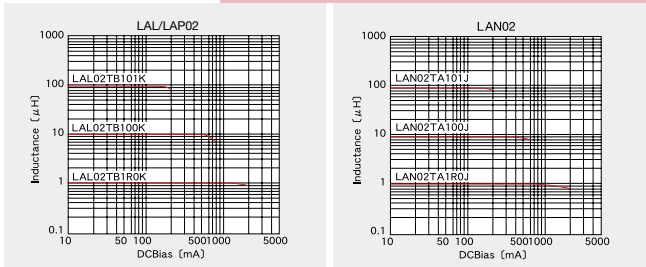
Ordering code		EHS (Environmental Hazardous Substances)	Inductance [μ H]	Inductance Tolerance	Q (min.)	Measuring frequency [MHz]	Self-resonant frequency [MHz] (min.)	DC Resistance [Ω] (max.)	Rated current [mA] (max.)
LAN02 ○ R12K		RoHS	0.12	$\pm 10\%$	50	25.2	500	0.12	850
LAN02 ○ R15K		RoHS	0.15				500	0.14	800
LAN02 ○ R18K		RoHS	0.18				500	0.15	760
LAN02 ○ R22K		RoHS	0.22				500	0.16	730
LAN02 ○ R27K		RoHS	0.27				500	0.18	690
LAN02 ○ R33K		RoHS	0.33				480	0.19	660
LAN02 ○ R39K		RoHS	0.39				430	0.21	640
LAN02 ○ R47K		RoHS	0.47				380	0.23	610
LAN02 ○ R56K		RoHS	0.56				350	0.25	580
LAN02 ○ R68K		RoHS	0.68				310	0.27	550
LAN02 ○ R82K		RoHS	0.82	$\pm 5\%$	40	7.96	270	0.29	520
LAN02 ○ 1R0J		RoHS	1.0				240	0.32	500
LAN02 ○ 1R2J		RoHS	1.2				210	0.35	480
LAN02 ○ 1R5J		RoHS	1.5				190	0.38	450
LAN02 ○ 1R8J		RoHS	1.8				140	0.42	430
LAN02 ○ 2R2J		RoHS	2.2				90	0.47	410
LAN02 ○ 2R7J		RoHS	2.7				70	0.52	390
LAN02 ○ 3R3J		RoHS	3.3				50	0.57	370
LAN02 ○ 3R9J		RoHS	3.9				35	0.63	360
LAN02 ○ 4R7J		RoHS	4.7				32	0.69	340
LAN02 ○ 5R6J		RoHS	5.6				30	0.75	320
LAN02 ○ 6R8J		RoHS	6.8				28	0.84	310
LAN02 ○ 8R2J		RoHS	8.2		50	2.52	26	0.92	290
LAN02 ○ 100J		RoHS	10				24	1.0	280
LAN02 ○ 120J		RoHS	12				22	1.0	280
LAN02 ○ 150J		RoHS	15				20	1.2	265
LAN02 ○ 180J		RoHS	18				18	1.3	250
LAN02 ○ 220J		RoHS	22				17	1.5	235
LAN02 ○ 270J		RoHS	27				15	1.7	220
LAN02 ○ 330J		RoHS	33				14	2.2	180
LAN02 ○ 390J		RoHS	39				13	2.4	170
LAN02 ○ 470J		RoHS	47				12	2.8	160
LAN02 ○ 560J		RoHS	56		50	0.796	10	4.1	140
LAN02 ○ 680J		RoHS	68				9.2	4.5	130
LAN02 ○ 820J		RoHS	82				8.8	5.0	125
LAN02 ○ 101J		RoHS	100				8.0	5.6	120
LAN02 ○ 121J		RoHS	120				6.6	9.2	90
LAN02 ○ 151J		RoHS	150				5.8	10.5	85
LAN02 ○ 181J		RoHS	180				5.4	11.5	80
LAN02 ○ 221J		RoHS	220				4.8	13	75
LAN02 ○ 271J		RoHS	270				3.6	16	70
LAN02 ○ 331J		RoHS	330				3.4	18	66
LAN02 ○ 391J		RoHS	390				3.2	20	63
LAN02 ○ 471J		RoHS	470				3.0	22	60

○ Please specify the Lead configuration code.

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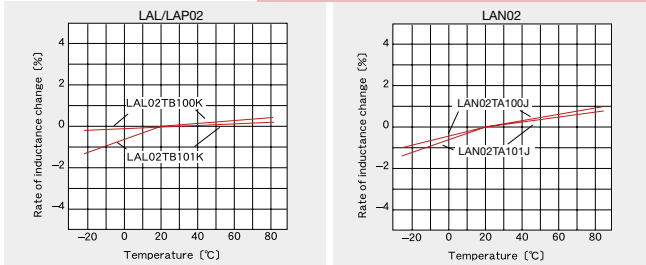
DC Bias characteristics

(Measured by HP4285A)



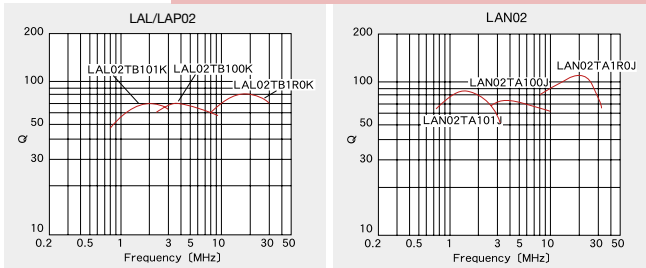
Temperature characteristics

(Measured by HP4285A)



Q-Characteristics

(Measured by HP4285A+HP42851A)



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PACKAGING

① Minimum Quantity

● Taping for Straight Leads

Type	Lead Configuration code	Standard quantity (pcs.)
LAL02	TB	2,000
LAP02	TA	2,000
LAN02	TA	2,000

● Taping for Formed Leads

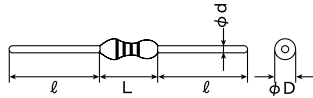
Type	Lead Configuration code	Standard quantity (pcs.)
LAL02	VD	2,000

● Bulk

Type	Lead Configuration code	Standard quantity (pcs.)
LAL02	NA	500
LAP02	KR	2,000
LAN02	KR	2,000

② Dimension

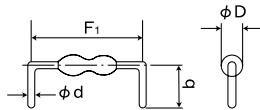
● NA



Type	φD	L	φd	l	Minimum insertion pitch
LAL02	2.3max (0.091max)	3.4max (0.134max)	0.50±0.05 (0.020±0.002)	24±2.0 (0.945±0.079)	5.0 (0.197)

Unit : mm (inch)

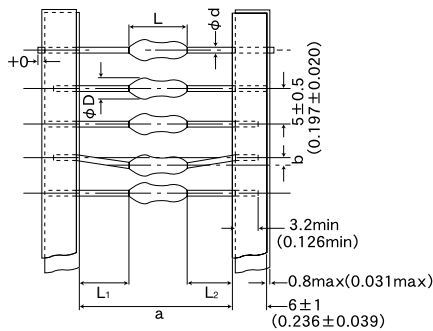
● KR



Type	Lead configuration code	φD	F1	φd	b
LAP02	KR	2.3max (0.091max)	5.0±0.5 (0.197±0.020)	0.45±0.05 (0.018±0.002)	7.0±1.0 (0.276±0.039)
LAN02	KR	2.4max (0.094max)	5.0±0.5 (0.197±0.020)	0.45±0.05 (0.018±0.002)	7.0±1.0 (0.276±0.039)

Unit : mm (inch)

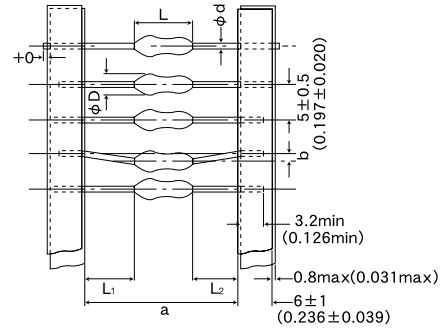
● TA (a : 26mm lead space) (1.02 inch)



Type	φD	L	a	b	L1-L2	φd	Minimum insertion pitch
LAP02	2.3max (0.091max)	3.4max (0.134max)	26 ^{+0.5} ₋₀ (1.02 ^{+0.020} ₋₀)	0.8max (0.031max)	0.5max (0.020max)	0.45±0.05 (0.018±0.002)	5.0 (0.197)
LAN02	2.4max (0.094max)	3.6max (0.142max)	26 ^{+0.5} ₋₀ (1.02 ^{+0.020} ₋₀)	0.8max (0.031max)	0.5max (0.020max)	0.45±0.05 (0.018±0.002)	5.0 (0.197)

Unit : mm (inch)

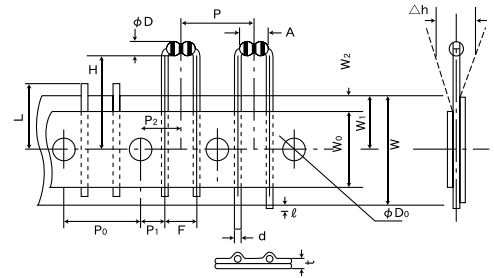
● TB (a : 52mm lead space) (2.05 inches)



Type	φD	L	a	b	L1-L2	φd	Minimum insertion pitch
LAL02	2.3max (0.091max)	3.4max (0.134max)	52 ⁺² ₋₁ (2.05 ^{+0.079} _{-0.039})	1.2max (0.047max)	1.0max (0.039max)	0.5±0.05 (0.020±0.002)	5.0 (0.197)

Unit : mm (inch)

● VD



Type	Symbol	Dimensions	Symbol	Dimensions
LAL02	A	3.9max (0.154max)	W	18.0 ^{+1.0} _{-0.5} (0.709 ^{+0.039} _{-0.020})
	φD	2.3max (0.091max)	W0	12.5 min. (0.492 min.)
	H	19.5±0.5 (0.768±0.020)	W1	9.0 ^{+0.75} _{-0.5} (0.354 ^{+0.030} _{-0.020})
	P	12.7±1.0 (0.500±0.039)	W2	3.0 max. (0.118 max.)
	P0	12.7±0.3 (0.500±0.012)	ℓ	2.0 max. (0.079 max.)
	P1	3.85±0.7 (0.152±0.028)	φD0	4.0±0.3 (0.157±0.012)
	P2	6.35±0.5 (0.250±0.020)		
	F	5.08±0.5 (0.200±0.020)	φd	0.50±0.05 (0.020±0.002)
	△h	0±1.0 (0±0.039)	L	11.0 max. (0.433 max.)
	—	—	t	0.5±0.2 (0.020±0.008)

Unit : mm (inch)

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