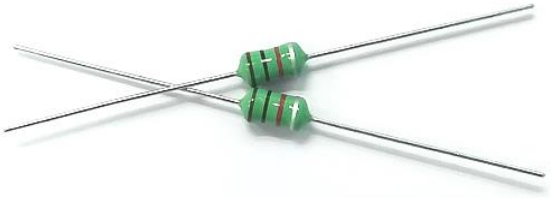
★色码电感规格描述
Color code inductor specification description



AL 0410 - 102 K - 60 - T52

A B C D E F

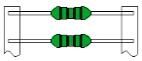
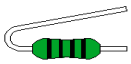
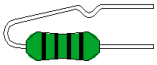
A:	产品类别 Product type
AL	轴向型色环电感 Axial color code inductor

C:	标准电感量 Nominal inductance
例如 For example: 102=1000uH 2R2=2.2uH 220=22uH 331=330uH	

D:	感量公差 Inductance tolerance
J	±5%
K	±10%
M	±20%

E:	产品总长 Length of Product
60	60.5±1

B:	规格尺寸 Dimensions(mm)	
类型 Type	外径 D max	本体长 L max
0307	3.0	7.0
0410	4.0	10.5
0510	5.0	10.5
0512	5.0	12.5

F:		引脚形式 Lead configuration
T52		T52编带 Tape
n		立式成型 Vertical type molding
L		卧式成型 Horizontal type molding
P2		P2立式编带 Vertical type for P2 tape
P3		P3立式编带 Vertical type for P3 tape
P4		P4立式编带 Vertical type for P4 tape

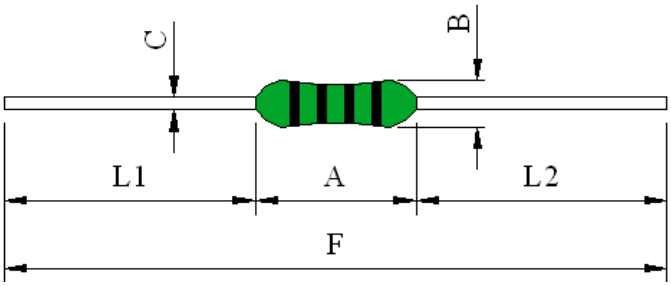
★产品特性/Features:

1. 环氧树脂涂装，结构坚固，成本低廉，可靠度高。
   Epoxy resin coating, strong structure, low cost, high reliability.
2. 体积小，重量轻，成本低，适合自动化生产。
   Small size, light weight, low cost, suitable for automatic production.
3. 特殊磁材质，高Q值及耐高温。
   Special magnetic material, high Q value and high temperature resistance.

★产品应用/Applications:

产品应用于电源适配器、通迅、电光源、家用电器、电子玩具等等。
Products re used in power adapters, communication, light sources, household appliances, electronic toys and so on.

★形状和尺寸/Shape and dimensions(UNIT:mm)



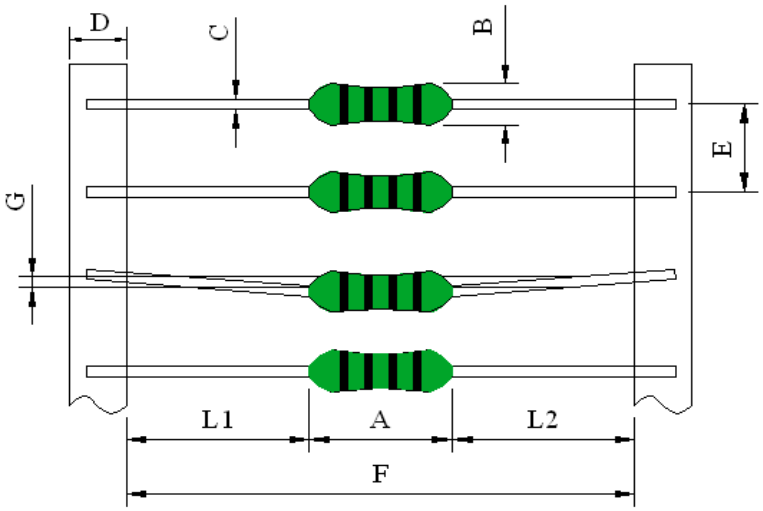
规格 Type	尺　寸/Dimensions(mm)				
	A	B	C	F	L1-L2
AL0307	7.0 Max	3.0 Max	0.50±0.05	60.5±0.05	0.5 Max
AL0410/3*6	10.5 Max	4.0 Max	0.55±0.05	60.5±0.05	0.5 Max
AL0410/3.3*6	10.5 Max	4.2 Max	0.55±0.05	60.5±0.05	0.5 Max
AL0410/3.5*6	10.5 Max	4.2 Max	0.55±0.05	60.5±0.05	0.5 Max
AL0510	10.5 Max	5.0 Max	0.55±0.05	60.5±0.05	0.5 Max
AL0512	12.5 Max	5.0 Max	0.55±0.05	60.5±0.05	0.5 Max

Colour code (色码)	First Figure	Second Figure	Multiplier	Tolerance
Black(黑)	0	0	1	±20%
Brown(棕)	1	1	10	~
Red(红)	2	2	100	~
Orange(橙)	3	3	1000	~
Yellow(黄)	4	4	~	~
Green(绿)	5	5	~	~
Blue(蓝)	6	6	~	~
Violet(紫)	7	7	~	~
Gray(灰)	8	8	~	~
White(白)	9	9	~	~
Silver银)	~	~	0.01	±10%
Gold(金)	~	~	0.1	±5%

★超出以上规格的特殊要求可依客户要求设计

Special inquiries besides the above common used types can bu met on your requirement.

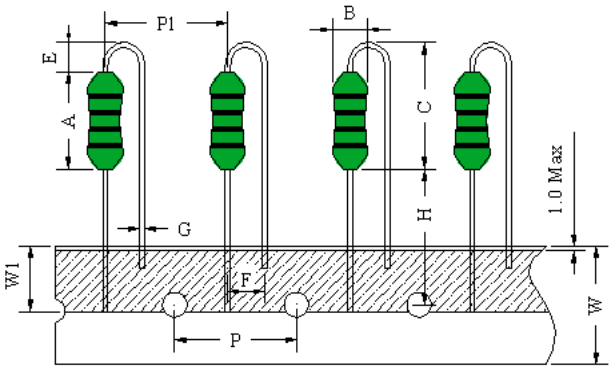
★编带图形及尺寸/Braided graphics and dimensions：



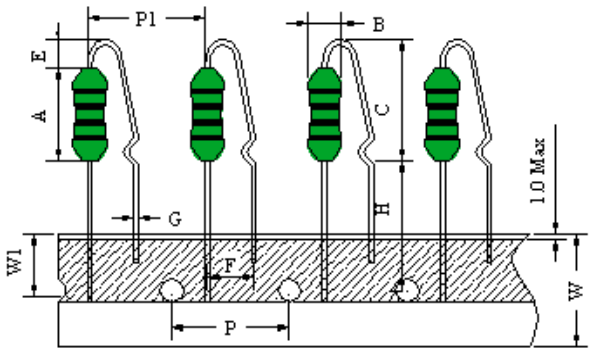
规格 Type	尺 寸/Dimensions(mm)							
	A	B	C	D	E	F	G	L1-L2
AL0307	7.0 Max	3.0 Max	0.5±0.05	6.0±0.5	5.0±0.5	52+2/-1	1.5 Max	1.2 Max
AL0410 3*6	10.5 Max	4.0 Max	0.6±0.10	6.0±0.5	5.0±0.5	52+2/-1	1.5 Max	1.2 Max
AL0410 3.5*6	10.5 Max	4.2 Max	0.6±0.10	6.0±0.5	5.0±0.5	52+2/-1	1.5 Max	1.2 Max
AL0510	10.5 Max	5.0 Max	0.6±0.10	6.0±0.5	5.0±0.5	52+2/-1	1.5 Max	1.2 Max
AL0512	12.5 Max	5.0 Max	0.6±0.10	6.0±0.5	5.0±0.5	52+2/-1	1.5 Max	1.2 Max

立式编带图形及尺寸规定/Vertical braiding pattern and dimensions:

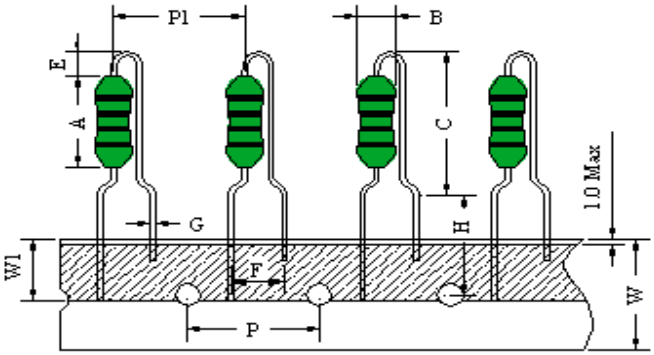
P1立式编带加工式样
Vertical type for P1 tape



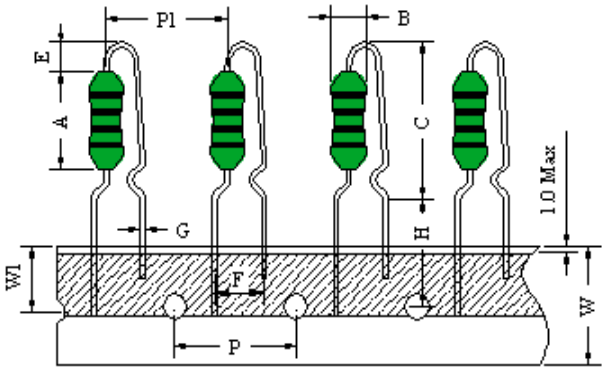
P2立式编带加工式样
Vertical type for P2 tape



P3立式编带加工式样
Vertical type for P3 tape



P4立式编带加工式样
Vertical type for P4 tape



规格 TYPE	尺　　寸/Dimensions(mm)							
	C	E	F	G	H	P	P1	W
P1	11.5 Max	3.5 Max	5.0±0.50	0.50±0.05	18.0±2.0	12.7±0.5	12.7±0.5	18.0±0.5
P2	11.5 Max	3.5 Max	5.0±0.50	0.50±0.05	18.0±2.0	12.7±0.5	12.7±0.5	18.0±0.5
P3	14.5 Max	3.5 Max	5.0±0.50	0.55±0.05	17.0±1.0	12.7±0.5	12.7±0.5	18.0±0.5
P4	14.0 Max	3.5 Max	5.0±0.50	0.55±0.05	18.0±2	12.7±0.5	12.7±0.5	18.0±0.5

★超出以上规格的特殊要求可依客户要求设计

Special inquiries besides the above common used types can bu met on

★电器性能参数/Electrical performance parameters：

AL0307系列

AL0307 Type	电感量 Inductance (uH)	Q值(Min)	直流电阻(Ω) Max	测试频率 Test frequency (MHz)	自谐频率 SRF (MHz) Min	额定电流 Rated current IDC(mA)Max
AL0307-1R0	1.0	50	0.18	25.2	180	700
AL0307-1R5	1.5	50	0.25	7.96	150	700
AL0307-2R2	2.2	50	0.3	7.96	110	630
AL0307-3R3	3.3	50	0.5	7.96	70	575
AL0307-4R7	4.7	45	0.6	7.96	50	530
AL0307-5R6	5.6	45	1.0	7.96	40	500
AL0307-6R8	6.8	40	1.2	7.96	30	470
AL0307-8R2	8.2	40	1.3	7.96	28	425
AL0307-100	10	40	1.4	7.96	22	370
AL0307-150	15	50	1.5	2.52	16	335
AL0307-220	22	50	1.8	2.52	13	285
AL0307-330	33	50	2.2	2.52	10	255
AL0307-470	47	50	2.7	2.52	8.5	205
AL0307-560	56	50	3.0	2.52	7.5	195
AL0307-680	68	50	3.5	2.52	6.5	185
AL0307-820	82	50	3.8	2.52	6.0	175
AL0307-101	100	50	4.5	2.52	5.5	165
AL0307-151	150	50	5.5	0.796	4.8	150
AL0307-221	220	50	7.0	0.796	4.0	130
AL0307-331	330	50	9.5	0.796	3.4	100
AL0307-471	470	45	17	0.796	2.6	90
AL0307-561	560	45	19	0.796	2.4	85
AL0307-681	680	40	22	0.796	2.0	75
AL0307-821	820	40	25	0.796	1.5	65
AL0307-102	1000	40	30	0.796	1.2	25
J:±5%		K:±10%		M:±20%		

★超出以上规格的特殊要求可依客户要求设计

Special inquiries besides the above common used types can bu met on your requirement.

★电器性能参数/Electrical performance parameters:

AL0410系列

AL0410 Type	电感量 Inductance (uH)	Q值(Min)	直流电阻(Ω) Max	测试频率 Test frequency (MHz)	自谐频率 SRF (MHz) Min	额定电流 Rated current IDC(mA)Max
AL0410-1R0	1.0	45	0.15	25.2	157	920
AL0410-1R5	1.5	50	0.23	7.96	131	830
AL0410-2R2	2.2	55	0.28	7.96	110	750
AL0410-3R3	3.3	60	0.34	7.96	94	670
AL0410-4R7	4.7	60	0.39	7.96	80	620
AL0410-5R6	5.6	60	0.43	7.96	74	590
AL0410-6R8	6.8	60	0.48	7.96	68	550
AL0410-8R2	8.2	60	0.52	7.96	53	530
AL0410-100	10	60	0.58	7.96	45	500
AL0410-150	15	60	0.72	2.52	20	460
AL0410-220	22	60	0.84	2.52	9.9	410
AL0410-330	33	50	1.03	2.52	6.3	370
AL0410-470	47	45	1.22	2.52	6.3	340
AL0410-560	56	45	1.34	2.52	6.2	320
AL0410-680	68	40	1.47	2.52	5.7	305
AL0410-820	82	35	1.62	2.52	5.3	290
AL0410-101	100	30	1.8	2.52	4.8	275
AL0410-151	150	55	4.2	0.796	3.5	175
AL0410-221	220	55	5.1	0.796	3.0	155
AL0410-331	330	55	6.4	0.796	2.6	137
AL0410-471	470	55	7.7	0.796	2.3	126
AL0410-561	560	55	8.5	0.796	2.1	120
AL0410-681	680	50	9.4	0.796	2.0	119
AL0410-821	820	50	10.5	0.796	1.9	105
AL0410-102	1000	40	14	0.796	1.4	100
AL0410-152	1500	40	20	1KHz	1.2	70
AL0410-202	2000	40	20	1KHz	1.1	60
AL0410-222	2200	40	25	1KHz	1.1	55
AL0410-302	3000	40	40	1KHz	1.0	50
AL0410-332	3300	40	35	1KHz	1.0	45
AL0410-472	4700	40	45	1KHz	0.9	40
J:±5%		K:±10%		M:±20%		

★超出以上规格的特殊要求可依客户要求设计

Special inquiries besides the above common used types can bu met on your requirement.

★电器性能参数/Electrical performance parameters:

AL0510/0512系列

品号码 Item NO.	电感量 Inductance (mH)	L测试频率 L Test frequency		Q值(Min)		Q测试频率 Q Test frequency		直流电阻 (Ω) Max		额定电流 Rated current IDC(mA)Max	
		0510	0512	0510	0512	0510	0512	0510	0512	0510	0512
101	0.10	1KHZ		30	25	796KHZ		1.5	1.0	320	380
151	0.15	1KHZ		30	25	796KHZ		2.5	2.0	250	300
221	0.22	1KHZ		30	25	796KHZ		3.0	2.5	200	200
331	0.33	1KHZ		30	25	796KHZ		3.5	3.0	160	180
471	0.47	1KHZ		30	25	796KHZ		6.0	3.5	140	150
561	0.56	1KHZ		30	25	796KHZ		6.5	4.0	100	140
681	0.68	1KHZ		30	25	796KHZ		7.5	4.5	110	130
821	0.82	1KHZ		30	25	796KHZ		8.0	5.0	105	120
102	1.0	1KHZ		30	30	252KHZ		8.0	5.5	90	110
152	1.5	1KHZ		30	30	252KHZ		14	10	70	90
202	2.0	1KHZ		30	30	252KHZ		15	15	60	80
222	2.2	1KHZ		30	30	252KHZ		17	15	60	70
302	3.0	1KHZ		30	30	252KHZ		25	16	50	60
332	3.3	1KHZ		30	30	252KHZ		25	18	45	60
472	4.7	1KHZ		30	30	252KHZ		37	25	45	50
562	5.6	1KHZ		30	30	252KHZ		39	30	40	45
682	6.8	1KHZ		30	30	252KHZ		43	38	35	40
822	8.2	1KHZ		30	30	252KHZ		65	50	30	35
103	10	1KHZ		20	10	79.6KHZ		75	55	25	30
153	15	1KHZ		20	10	79.6KHZ		135	70	22	25
J:±5% K:±10% M:±20%											

★超出以上规格的特殊要求可依客户要求设计

Special inquiries besides the above common used types can bu met on your requirement.

★可靠性试验项目及要求：
ITEMS AND REQUIREMENTS OF RELIABILITY TEST

项目 Item		性能要求 Specification	试验条件及方法 Test methods and remarks
1	工作温度范围 Operating temperature range	-25℃ ~ +85℃	
2	储存温度范围 Storage temperature range	-40℃ ~ +85℃	
3	外观和外形尺寸 Appearance & dimensions	符合产品规范和公差要求 Conformity to the product specification	目测，精度不低于0.02mm的游标卡尺测量 Eyeball;vernier calliper with precision no lower than 0.02mm
4	L值、Q值 Inductance、Q	在规定的允许范围内 Within the specified tolerance	电感量和Q值在规定的测试频率下，用HM-9481、TH2816A进行测试。 Condition:at specified test frequency. Test equipment:HM-9481、TH2816A
5	直流电阻 DC resistance	在规定的允许范围内 Within the specified tolerance	测试仪器:TH-2515 Test equipment:TH-2515
6	自谐振频率 Self-resonance frequency	在规定的允许范围内 Within the specified tolerance	测试仪器：射频/阻抗材料分析仪HM-9461 Test equipment:HM-9461
7	额定电流 Rated current	在规定的允许范围内 Within the specified tolerance	电感值变化10%、温升20℃以内的最大直流电流。 The maximum DC value halue having inductance within 10% and temperature increase within 20℃ by the application of DC bias.
8	引出端强度 Terminal strength	外观无可见损伤、引线不断 There shall be no evidence of damage during the test and the lead no breakage.	拉力：沿轴向施加2kg,持续时间：10s Pull:adding 2.0kg down axial, Duration:10s 弯折循环：在靠近端子未端将引线弯折90度后还原持续5s，再向反方向重复一次为一个循环。重复2次。 Bucking cycle:buck lead 90o at the end of closing terminal and then reset keeping 5s,redoing one time at the counter is one cycle. Repeat two times.

★可靠性试验项目及要求：
ITEMS AND REQUIREMENTS OF RELIABILITY TEST

9	耐焊接热 Resistance to soldering heat	△L/L≤±5% △Q/Q≤±20%	焊锡温度：270±5℃ 浸锡时间：10±1s 恢复时间：1~2小时 Tin review:270±5℃ Duration:10±1s Recovery:1~2 hours
10	可焊性 Solder ability	引线的表面圆周覆盖率不小于95% Leads shall be at least 90% areas covered with anew solder coation.	焊锡温度：245±5℃ 浸锡时间：2±0.5s Tin review:245±5℃ Duration:2±0.5s
11	标记耐溶剂性 Resistance to solvent	标志无可见损伤 There shall be no evidence of damage.	溶剂温度：25±5℃ Solvent temperature:25±5℃ 将棉球和样品浸在溶剂中1min，在样品有标志部位用棉球擦3次。 There shall be put the cotton ball and sample steep in dissolvent 1min,at sample's notation area brush 10 times,repeat 3 times.
12	介质耐压 Dielectric Withstanding Voltage	无弧光、击穿或损伤 There shall be no arc,breakdown or damage.	在外封和引线间施加直流电压500V，持续60秒。 Apply 500VDC between outer coating and terminal for 60 sec.
13	绝缘电阻 Insulation resistance	IR≥100MΩ	在外包封和引线间施加直流电压500V，持续60秒。 Apply 500VDC between outer coating and terminal for 60 sec.
14	湿度试验 Humidity test	△L/L≤±10% △Q/Q≤±30%	试验温度：40℃±2℃，试验湿度：90%~95%RH, 持续时间：72小时 Temperature:40℃±2℃，Humidity:90%~95%RH, Duration:72hours
15	冷热冲击试验 Thermal shock test	△L/L≤±10% △Q/Q≤±30%	首先-25℃±5℃作用30±2分钟，然后温度+85℃±5℃作用30±2分钟，作为1个循环，共做25个循环。 First -25℃±5℃ for 30±2 minutes,then +85℃±5℃ for 30±2 minutes as 1 cycles,Go through 25 cycles
16	高温试验 High temperature life test	△L/L≤±5% △Q/Q≤±10%	温度：85±2℃，试验时间：72小时 Test temperature:85±2℃,Time:72hours
17	低温试验 Low temperature life test	△L/L≤±5% △Q/Q≤±10%	温度：-25±2℃，试验时间：72小时 Test temperature:-25±2℃,Time:72hours

备注：1、如无特别指定时，电性能测试应在常温、常湿中恢复1~2小时，然后立即测试。
2、若测试结果有争议时，试试结果用标准大气条件为：温度：25±1℃，相对湿度48%~52%，气压：86~106kPa。

Note:1、In the event of no special requirement,the measurement shall be conducted immediately after a recovery of 1~2 hours under the standard condition.

2、In the event of any dispute,the standard condition for arbitration shall be as follows:25±1℃ of temperature,48%~52% of relative humidity and 86~106kPa air pressure.

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