

## AL(LGA) series Axial Leaded Inductors

### ◆ Features

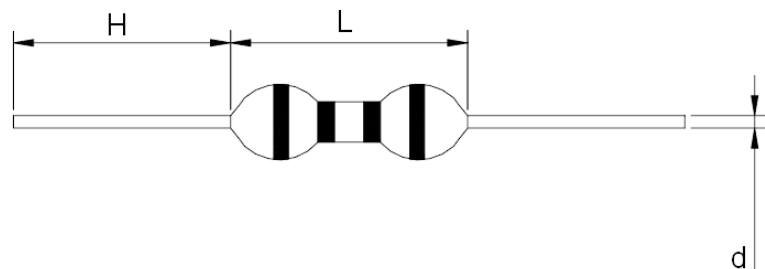
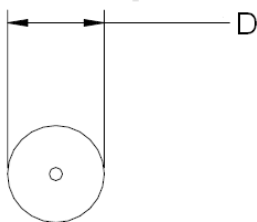
- » Wide inductance range
- » Ideal for auto insertion
- » Conformal coated inductors
- » Epoxy resin coating makes it high reliability
- » Special magnetic core structure contributes to high Q and Self-Resonant Frequencies



### ◆ Applications

- » RF coils
- » Choke coils
- » Peaking coils

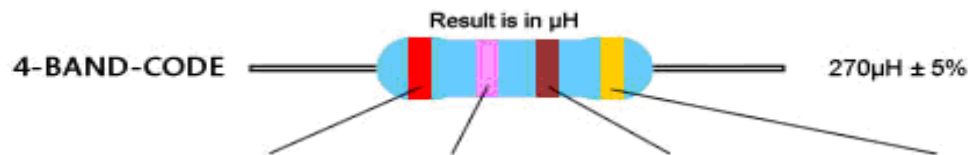
### ◆ Dimension



Unit: mm

Type	L(max)	$\phi$ D(max)	H	$\phi$ d
AL(LGA)0512	12	5	25 $\pm$ 3	0.60 $\pm$ 0.05
AL(LGA)0410	10	4	26 $\pm$ 3	0.65 $\pm$ 0.05
AL(LGA)0307	7	3	28 $\pm$ 3	0.50 $\pm$ 0.05

## ◆ COLOR CODE



色碼(Color)	代表數字 (Significant figures)	倍率 (Multiplier)	誤差 (Tolerance)		溫度系數 (Temp. Coefficient) (ppm/K)	
黑(Black)	0	$\times 10^0$	—		250	U
棕(Brown)	1	$\times 10^1$	$\pm 1\%$	F	100	S
紅(Red)	2	$\times 10^2$	$\pm 2\%$	G	50	R
橙(Orange)	3	$\times 10^3$	—		15	P
黃(Yellow)	4	$\times 10^4$	—		25	Q
綠(Green)	5	$\times 10^5$	$\pm 0.5\%$	D	20	Z
藍(Blue)	6	$\times 10^6$	$\pm 0.25\%$	C	10	Z
紫(Violet)	7	$\times 10^7$	$\pm 0.1\%$	B	5	M
灰(Gray)	8	$\times 10^8$	$\pm 0.05\%$	A	1	K
白(White)	9	$\times 10^9$	—		—	—
金(Gold)	—	$\times 10^{-1}$	$\pm 5\%$	J	—	—
銀(Silver)	—	$\times 10^{-2}$	$\pm 10\%$	K	—	—
透明(None)	—	—	$\pm 20\%$	M	—	—

1. Any temperature coefficient not assigned its own letter shall be marked "Z", and the coefficient found in other documentation.  
2. For more information, see EN 60062.

## ◆ Part Number

<u>AL(LGA)</u>	<u>0307</u>	<u>- 4R7</u>	<u>M</u>	<u>-</u>	<u>T</u>	
<b>Type</b>	<b>Size</b>	<b>Inductance</b>	<b>Tolerance</b>		<b>Package</b>	<b>Forming</b>
	0410	4.7uH = 4R7	K= ±10%		T= Taping in box	Blank = Straight Lead
	0307					
	0512	1000uH = 102	M= ±20%		R= Taping in reel	F = F type
	0612				B= Bulk	

## ◆ Electrical Specifications

### »AL(LGA)0512

PART NUMBER	INDUCTANCE (uH)	TOLERANCE	Q (min)	DCR (Ω) (max)	IDC (mA) (max)	SRF(MHz) (min)	TEST FREQ. (f)
AL(LGA)0512-1R0-T(R)	1	20%,10%	25	0.025	4000	140	25.2M
AL(LGA)0512-1R2-T(R)	1.2	20%,10%	70	0.03	3800	128	7.96M
AL(LGA)0512-1R5-T(R)	1.5	20%,10%	70	0.035	3600	115	7.96M
AL(LGA)0512-1R8-T(R)	1.8	20%,10%	70	0.038	3500	110	7.96M
AL(LGA)0512-2R2-T(R)	2.2	20%,10%	70	0.042	3200	100	7.96M
AL(LGA)0512-2R7-T(R)	2.7	20%,10%	70	0.058	2900	90	7.96M
AL(LGA)0512-3R3-T(R)	3.3	20%,10%	70	0.065	2600	83	7.96M
AL(LGA)0512-3R9-T(R)	3.9	20%,10%	70	0.08	2300	74	7.96M
AL(LGA)0512-4R7-T(R)	4.7	20%,10%	70	0.09	2200	68	7.96M
AL(LGA)0512-5R6-T(R)	5.6	20%,10%	80	0.1	2000	60	7.96M
AL(LGA)0512-6R8-T(R)	6.8	20%,10%	80	0.12	1800	55	7.96M
AL(LGA)0512-8R2-T(R)	8.2	20%,10%	80	0.14	1600	50	7.96M
AL(LGA)0512-100-T(R)	10	20%,10%,5%	80	0.16	1500	39	7.96M
AL(LGA)0512-120-T(R)	12	20%,10%,5%	60	0.19	1300	27	2.52M
AL(LGA)0512-150-T(R)	15	20%,10%,5%	50	0.21	1200	16	2.52M
AL(LGA)0512-180-T(R)	18	20%,10%,5%	45	0.23	1100	12	2.52M
AL(LGA)0512-220-T(R)	22	20%,10%,5%	40	0.26	1000	9.5	2.52M
AL(LGA)0512-270-T(R)	27	20%,10%,5%	40	0.29	950	7	2.52M
AL(LGA)0512-330-T(R)	33	20%,10%,5%	40	0.31	830	5.5	2.52M
AL(LGA)0512-390-T(R)	39	20%,10%,5%	40	0.37	780	5	2.52M

PART NUMBER	INDUCTANCE (uH)	TOLERANCE	Q (min)	DCR ( $\Omega$ ) (max)	IDC (mA) (max)	SRF(MHz) (min)	TEST FREQ. (f)
AL(LGA)0512-470-T(R)	47	20%,10%,5%	40	0.4	750	4.8	2.52M
AL(LGA)0512-560-T(R)	56	20%,10%,5%	30	0.53	680	4.2	2.52M
AL(LGA)0512-680-T(R)	68	20%,10%,5%	30	0.59	650	4	2.52M
AL(LGA)0512-820-T(R)	82	20%,10%,5%	25	0.64	620	3.6	2.52M
AL(LGA)0512-101-T(R)	100	20%,10%,5%	25	0.7	600	3.2	2.52M
AL(LGA)0512-121-T(R)	120	20%,10%,5%	40	0.95	580	2.8	796K
AL(LGA)0512-151-T(R)	150	20%,10%,5%	40	1.08	550	2.5	796K
AL(LGA)0512-181-T(R)	180	20%,10%,5%	40	1.2	520	2.2	796K
AL(LGA)0512-221-T(R)	220	20%,10%,5%	35	1.35	500	2	796K
AL(LGA)0512-271-T(R)	270	20%,10%,5%	35	1.5	460	1.8	796K
AL(LGA)0512-331-T(R)	330	20%,10%,5%	35	2	430	1.6	796K
AL(LGA)0512-391-T(R)	390	20%,10%,5%	35	2.2	400	1.4	796K
AL(LGA)0512-471-T(R)	470	20%,10%,5%	35	2.4	350	1.2	796K
AL(LGA)0512-561-T(R)	560	20%,10%,5%	35	3.2	330	1.1	796K
AL(LGA)0512-681-T(R)	680	20%,10%,5%	35	3.5	300	1	796K
AL(LGA)0512-821-T(R)	820	20%,10%,5%	30	4	280	1	796K
AL(LGA)0512-102-T(R)	1000	20%,10%,5%	30	4.4	260	0.9	796K
AL(LGA)0512-122-T(R)	1200	20%,10%,5%	60	10	200	0.8	252K
AL(LGA)0512-152-T(R)	1500	20%,10%,5%	60	11.8	180	0.7	252K
AL(LGA)0512-182-T(R)	1800	20%,10%,5%	60	13	160	0.65	252K
AL(LGA)0512-222-T(R)	2200	20%,10%,5%	60	14.5	150	0.58	252K
AL(LGA)0512-272-T(R)	2700	20%,10%,5%	60	20	130	0.5	252K
AL(LGA)0512-332-T(R)	3300	20%,10%,5%	60	23	120	0.47	252K
AL(LGA)0512-392-T(R)	3900	20%,10%,5%	50	25	110	0.45	252K
AL(LGA)0512-472-T(R)	4700	20%,10%,5%	50	27.5	100	0.42	252K
AL(LGA)0512-562-T(R)	5600	20%,10%,5%	40	30	90	0.4	252K
AL(LGA)0512-682-T(R)	6800	20%,10%,5%	35	40	80	0.35	252K
AL(LGA)0512-822-T(R)	8200	20%,10%,5%	30	44	70	0.3	252K
AL(LGA)0512-103-T(R)	10000	20%,10%,5%	30	50	68	0.28	252K

PART NUMBER	INDUCTANCE (uH)	TOLERANCE	Q (min)	DCR ( $\Omega$ ) (max)	IDC (mA) (max)	SRF(MHz) (min)	TEST FREQ. (f)
AL(LGA)0512-123-T(R)	12000	20%,10%,5%	30	82	64	0.25	79.6K
AL(LGA)0512-153-T(R)	15000	20%,10%,5%	30	93	55	0.22	79.6K
AL(LGA)0512-183-T(R)	18000	20%,10%,5%	35	105	48	0.2	79.6K
AL(LGA)0512-223-T(R)	22000	20%,10%,5%	35	118	40	0.18	79.6K
AL(LGA)0512-273-T(R)	27000	20%,10%,5%	35	135	40	0.17	79.6K
AL(LGA)0512-333-T(R)	33000	20%,10%,5%	30	200	38	0.15	79.6K
AL(LGA)0512-393-T(R)	39000	20%,10%,5%	30	215	36	0.13	79.6K
AL(LGA)0512-473-T(R)	47000	20%,10%,5%	30	240	32	0.12	79.6K
AL(LGA)0512-563-T(R)	56000	20%,10%,5%	30	260	30	0.1	79.6K
AL(LGA)0512-683-T(R)	68000	20%,10%,5%	30	290	28	0.09	79.6K

»AL(LGA)0410

PART NUMBER	INDUCTANCE ( $\mu$ H)	Q (min)	DCR ( $\Omega$ ) (max)	IDC (mA) (max)	SRF(MHz) (min)	TEST FREQ. (f)
AL(LGA)0410-R10M-T(R)	0.10 $\pm$ 20%	25	0.060	1700	480	25.2MHz
AL(LGA)0410-R12M-T(R)	0.12 $\pm$ 20%	25	0.060	1640	450	25.2MHz
AL(LGA)0410-R15M-T(R)	0.15 $\pm$ 20%	25	0.070	1560	420	25.2MHz
AL(LGA)0410-R18M-T(R)	0.18 $\pm$ 20%	25	0.070	1480	400	25.2MHz
AL(LGA)0410-R22M-T(R)	0.22 $\pm$ 20%	25	0.080	1400	380	25.2MHz
AL(LGA)0410-R27M-T(R)	0.27 $\pm$ 20%	25	0.090	1320	340	25.2MHz
AL(LGA)0410-R33M-T(R)	0.33 $\pm$ 20%	25	0.100	1280	300	25.2MHz
AL(LGA)0410-R39M-T(R)	0.39 $\pm$ 20%	25	0.120	1200	280	25.2MHz
AL(LGA)0410-R47M-T(R)	0.47 $\pm$ 20%	25	0.130	1150	250	25.2MHz
AL(LGA)0410-R56M-T(R)	0.56 $\pm$ 20%	25	0.140	1100	230	25.2MHz
AL(LGA)0410-R68M-T(R)	0.68 $\pm$ 20%	25	0.150	1030	210	25.2MHz
AL(LGA)0410-R82M-T(R)	0.82 $\pm$ 20%	45	0.160	980	172	25.2MHz
AL(LGA)0410-1R0K-T(R)	1.00 $\pm$ 10%	45	0.170	920	157	25.2MHz
AL(LGA)0410-1R2K-T(R)	1.20 $\pm$ 10%	50	0.180	880	144	7.96MHz
AL(LGA)0410-1R5K-T(R)	1.50 $\pm$ 10%	50	0.200	830	131	7.96MHz
AL(LGA)0410-1R8K-T(R)	1.80 $\pm$ 10%	55	0.220	790	121	7.96MHz
AL(LGA)0410-2R2K-T(R)	2.20 $\pm$ 10%	55	0.240	750	110	7.96MHz
AL(LGA)0410-2R7K-T(R)	2.70 $\pm$ 10%	60	0.250	720	100	7.96MHz
AL(LGA)0410-3R3K-T(R)	3.30 $\pm$ 10%	65	0.300	670	94	7.96MHz
AL(LGA)0410-3R9K-T(R)	3.90 $\pm$ 10%	65	0.350	640	86	7.96MHz
AL(LGA)0410-4R7K-T(R)	4.70 $\pm$ 10%	70	0.400	620	80	7.96MHz
AL(LGA)0410-5R6K-T(R)	5.60 $\pm$ 10%	70	0.450	590	74	7.96MHz
AL(LGA)0410-6R8K-T(R)	6.80 $\pm$ 10%	75	0.500	550	68	7.96MHz
AL(LGA)0410-8R2K-T(R)	8.20 $\pm$ 10%	80	0.600	530	53	7.96MHz
AL(LGA)0410-100K-T(R)	10.0 $\pm$ 10%	80	0.650	500	45	7.96MHz
AL(LGA)0410-120K-T(R)	12.0 $\pm$ 10%	75	0.700	480	34	2.52MHz
AL(LGA)0410-150K-T(R)	15.0 $\pm$ 10%	70	0.750	460	20	2.52MHz
AL(LGA)0410-180K-T(R)	18.0 $\pm$ 10%	65	0.800	430	14	2.52MHz

PART NUMBER	INDUCTANCE ( $\mu$ H)	Q (min)	DCR ( $\Omega$ ) (max)	IDC (mA) (max)	SRF(MHz) (min)	TEST FREQ. (f)
AL(LGA)0410-220K-T(R)	22.0 $\pm$ 10%	50	0.900	410	9.9	2.52MHz
AL(LGA)0410-270K-T(R)	27.0 $\pm$ 10%	55	1.000	390	7.6	2.52MHz
AL(LGA)0410-330K-T(R)	33.0 $\pm$ 10%	55	1.100	370	6.3	2.52MHz
AL(LGA)0410-390K-T(R)	39.0 $\pm$ 10%	50	1.200	350	6.3	2.52MHz
AL(LGA)0410-470K-T(R)	47.0 $\pm$ 10%	45	1.300	340	6.3	2.52MHz
AL(LGA)0410-560K-T(R)	56.0 $\pm$ 10%	40	1.500	320	6.2	2.52MHz
AL(LGA)0410-680K-T(R)	68.0 $\pm$ 10%	40	1.800	305	5.7	2.52MHz
AL(LGA)0410-820K-T(R)	82.0 $\pm$ 10%	35	2.000	290	5.3	2.52MHz
AL(LGA)0410-101K-T(R)	100 $\pm$ 10%	30	2.500	275	4.8	2.52MHz
AL(LGA)0410-121K-T(R)	120 $\pm$ 10%	70	3.000	185	3.8	0.796MHz
AL(LGA)0410-151K-T(R)	150 $\pm$ 10%	70	4.200	175	3.5	0.796MHz
AL(LGA)0410-181K-T(R)	180 $\pm$ 10%	70	4.600	165	3.3	0.796MHz
AL(LGA)0410-221K-T(R)	220 $\pm$ 10%	70	5.100	155	3.0	0.796MHz
AL(LGA)0410-271K-T(R)	270 $\pm$ 10%	65	6.000	145	2.8	0.796MHz
AL(LGA)0410-331K-T(R)	330 $\pm$ 10%	65	6.500	137	2.6	0.796MHz
AL(LGA)0410-391K-T(R)	390 $\pm$ 10%	65	7.500	133	2.4	0.796MHz
AL(LGA)0410-471K-T(R)	470 $\pm$ 10%	60	8.500	126	2.2	0.796MHz
AL(LGA)0410-561K-T(R)	560 $\pm$ 10%	60	9.500	120	2.1	0.796MHz
AL(LGA)0410-681K-T(R)	680 $\pm$ 10%	55	12.000	113	1.9	0.796MHz
AL(LGA)0410-821K-T(R)	820 $\pm$ 10%	55	14.000	105	1.8	0.796MHz
AL(LGA)0410-102K-T(R)	1000 $\pm$ 10%	50	20.000	85	1.4	0.796MHz

**»AL(LGA)0307**

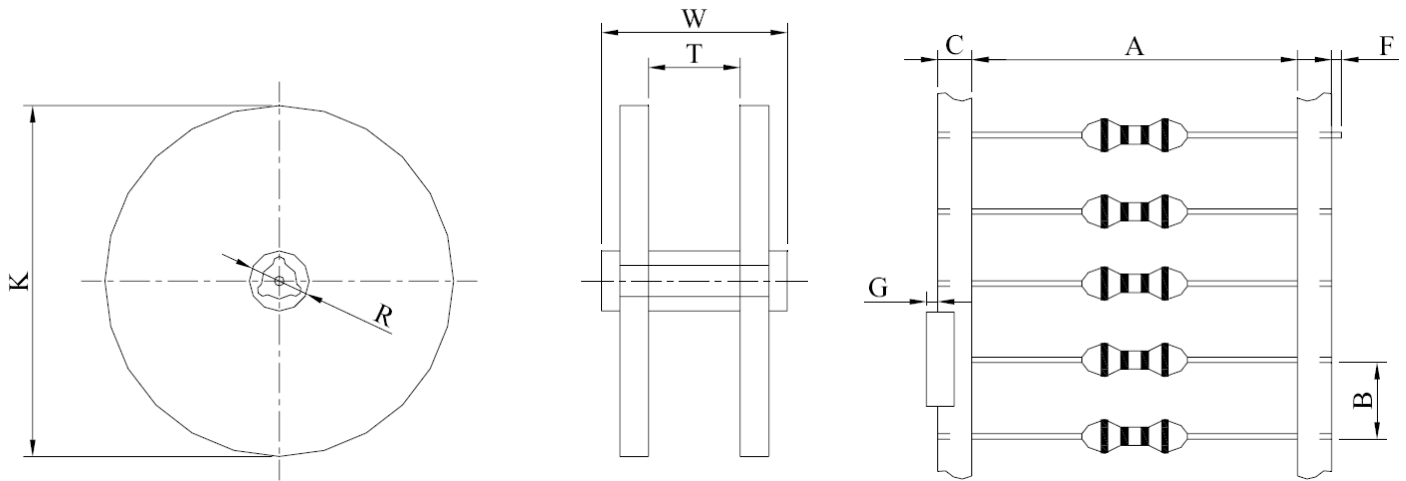
PART NUMBER	INDUCTANCE (uH)	Q (min)	DCR ( $\Omega$ ) (max)	IDC (mA) (max)	SRF(MHz) (min)	TEST FREQ. (f)
AL(LGA)0307-R10M-T(R)	0.10±20%	40	0.060	1400	480	25.2MHz
AL(LGA)0307-R12M-T(R)	0.12±20%	40	0.060	1350	450	25.2MHz
AL(LGA)0307-R15M-T(R)	0.15±20%	40	0.070	1270	420	25.2MHz
AL(LGA)0307-R18M-T(R)	0.18±20%	40	0.070	1200	400	25.2MHz
AL(LGA)0307-R22M-T(R)	0.22±20%	40	0.080	1150	380	25.2MHz
AL(LGA)0307-R27M-T(R)	0.27±20%	40	0.085	1110	360	25.2MHz
AL(LGA)0307-R33M-T(R)	0.33±20%	40	0.095	1110	350	25.2MHz
AL(LGA)0307-R39M-T(R)	0.39±20%	40	0.100	1000	320	25.2MHz
AL(LGA)0307-R47M-T(R)	0.47±20%	40	0.110	1000	300	25.2MHz
AL(LGA)0307-R56M-T(R)	0.56±20%	40	0.120	950	280	25.2MHz
AL(LGA)0307-R68M-T(R)	0.68±20%	40	0.130	900	250	25.2MHz
AL(LGA)0307-R82M-T(R)	0.82±20%	40	0.140	900	200	25.2MHz
AL(LGA)0307-1R0K-T(R)	1.00±10%	40	0.150	815	180	25.2MHz
AL(LGA)0307-1R2K-T(R)	1.20±10%	40	0.180	740	165	7.96MHz
AL(LGA)0307-1R5K-T(R)	1.50±10%	40	0.200	700	150	7.96MHz
AL(LGA)0307-1R8K-T(R)	1.80±10%	50	0.230	655	125	7.96MHz
AL(LGA)0307-2R2K-T(R)	2.20±10%	50	0.250	630	110	7.96MHz
AL(LGA)0307-2R7K-T(R)	2.70±10%	50	0.280	595	95	7.96MHz
AL(LGA)0307-3R3K-T(R)	3.30±10%	50	0.300	575	70	7.96MHz
AL(LGA)0307-3R9K-T(R)	3.90±10%	50	0.320	555	65	7.96MHz
AL(LGA)0307-4R7K-T(R)	4.70±10%	50	0.350	530	50	7.96MHz
AL(LGA)0307-5R6K-T(R)	5.60±10%	50	0.400	500	40	7.96MHz
AL(LGA)0307-6R8K-T(R)	6.80±10%	50	0.450	470	30	7.96MHz
AL(LGA)0307-8R2K-T(R)	8.20±10%	50	0.560	425	28	7.96MHz
AL(LGA)0307-100K-T(R)	10.0±10%	50	0.750	370	22	7.96MHz
AL(LGA)0307-120K-T(R)	12.0±10%	50	0.800	350	20	2.52MHz
AL(LGA)0307-150K-T(R)	15.0±10%	50	0.930	335	16	2.52MHz
AL(LGA)0307-180K-T(R)	18.0±10%	50	1.000	315	15	2.52MHz
AL(LGA)0307-220K-T(R)	22.0±10%	50	1.200	285	13	2.52MHz



PART NUMBER	INDUCTANCE (uH)	Q (min)	DCR ( $\Omega$ ) (max)	IDC (mA) (max)	SRF(MHz) (min)	TEST FREQ. (f)
AL(LGA)0307-270K-T(R)	27.0±10%	50	1.800	270	11	2.52MHz
AL(LGA)0307-330K-T(R)	33.0±10%	50	2.100	255	10	2.52MHz
AL(LGA)0307-390K-T(R)	39.0±10%	50	2.300	240	9.5	2.52MHz
AL(LGA)0307-470K-T(R)	47.0±10%	50	2.600	205	8.5	2.52MHz
AL(LGA)0307-560K-T(R)	56.0±10%	50	2.900	195	7.5	2.52MHz
AL(LGA)0307-680K-T(R)	68.0±10%	50	3.300	185	6.5	2.52MHz
AL(LGA)0307-820K-T(R)	82.0±10%	50	3.800	175	6.0	2.52MHz
AL(LGA)0307-101K-T(R)	100±10%	50	4.200	165	5.5	2.52MHz
AL(LGA)0307-121K- T(R)	120±10%	60	4.700	160	5.4	0.796MHz
AL(LGA)0307-151K-T(R)	150±10%	60	5.400	150	4.7	0.796MHz
AL(LGA)0307-181K-T(R)	180±10%	60	6.000	140	4.3	0.796MHz
AL(LGA)0307-221K-T(R)	220±10%	60	7.000	130	4.0	0.796MHz
AL(LGA)0307-271K-T(R)	270±10%	60	7.700	120	3.7	0.796MHz
AL(LGA)0307-331K-T(R)	330±10%	60	11.100	100	3.4	0.796MHz
AL(LGA)0307-391K-T(R)	390±10%	60	12.600	95	2.8	0.796MHz
AL(LGA)0307-471K-T(R)	470±10%	60	14.000	90	2.5	0.796MHz
AL(LGA)0307-561K-T(R)	560±10%	60	15.500	85	2.3	0.796MHz
AL(LGA)0307-681K-T(R)	680±10%	60	25.300	75	2.0	0.796MHz
AL(LGA)0307-821K-T(R)	820±10%	60	27.500	65	1.5	0.796MHz
AL(LGA)0307-102K-T(R)	1000±10%	60	31.400	60	1.2	0.796MHz

## Packing

### Reel and Tape Dimensions



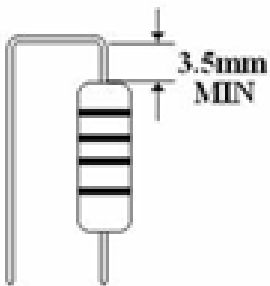
Unit: mm

TYPE	Dimensions									Quantity PCS/Reel
	G	K	T	W	R	A	B	C	F+0	
AL(LGA)0410	1.0	355	66	72	17.5	52±1.0	5±0.5	6±1.0	0.8	5000
AL(LGA)0307	1.0	355	66	72	17.5	52±1.0	5±0.5	6±1.0	0.8	5000

All product specification and data are subject to change without notice

### ◆ Lead Forming

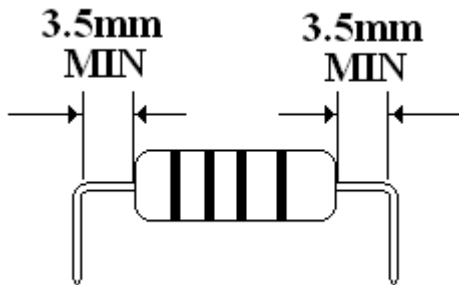
#### F Lead Form



## ◆ Bending Guidelines

» The distance between the body and bending point is less than 3.5mm and using strong force, it will cause – “pin falling”.

» Please keep the distance longer than 3.5mm at least



## ◆ Washing information

» This product(inductor body) can not be washed by using ultrasonic, only can use it to clean the flux left on the pin.