

L0603 Tight Tolerance Thin Film RF Inductor

ITF TECHNOLOGY

The L0603 LGA Inductor is based on thin-film multilayer technology. The technology provides a miniature part with excellent high frequency performance and rugged construction for reliable automatic assembly.

APPLICATIONS

- Mobile communications
- Satellite TV receivers
- GPS
- Vehicle location systems
- Wireless LAN's
- Filters
- Matching Networks

Land Grid Array Advantages

- Inherent Low Profile
- Self Alignment during Reflow
- Excellent Solderability
- Low Parasitics
- Better Heat Dissipation

PART NUMBER CODE

L0603 XXX X H L TR
Inductance Tol. Series LGA Taped &
(nH) Termination Reeled

P/N Example: **L06032R7BHLTR**

QUALITY INSPECTION

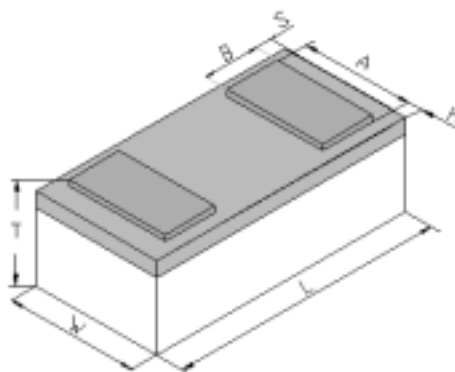
Finished parts are 100% tested for electrical parameters and visual characteristics. Each production lot is evaluated on a sample basis for:

- Static Humidity: 85°C, 85% RH, 160 hours
- Endurance : 125°C, IR, 4 hours

TERMINATION

Nickel/Solder coating compatible with automatic soldering technologies: reflow, wave soldering, vapor phase and manual.

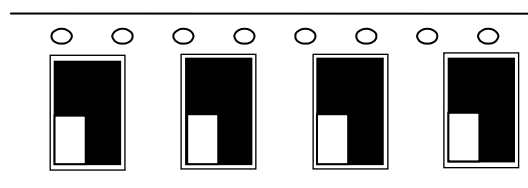
DIMENSIONS - mm (inches) (Bottom View)



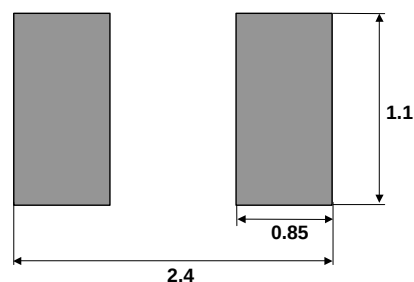
L	1.6±0.1 (0.063±0.004)
W	0.81±0.1 (0.032±0.004)
T	0.61±0.1 (0.024±0.004)

A	0.66±0.05 (0.026±0.002)
B	0.23±0.05 (0.009±0.002)
S,H	0.10±0.05 (0.004±0.002)

Marking and Orientation in Tape (Top View)



Recommended Pad Layout (mm)



ELECTRICAL SPECIFICATIONS

450MHz				900MHz	1900MHz	2400MHz	SRF min. (MHz)	R _{DC} max. (Ω)	I _{DC} max. (mA)
L(nH)	Tolerance A=±0.05nH, B=±0.1nH, C=±0.2nH, D=±0.5nH F=±1%, G=±2%, J=±5%	Q (min)	Q (Typ)	Q (Typ)	Q (Typ)	Q (Typ)			
0.56	± 0.05nH, ± 0.1nH	30	40	40	50	60	20000	0.02	700
0.68	± 0.05nH, ± 0.1nH	30	40	40	50	60	20000	0.02	700
0.82	± 0.05nH, ± 0.1nH	30	40	40	50	60	20000	0.05	700
1.0	± 0.05nH, ± 0.1nH	25	40	40	40	60	20000	0.06	700
1.2	± 0.05nH, ± 0.1nH, ± 0.2nH	25	40	40	40	60	20000	0.08	700
1.5	± 0.05nH, ± 0.1nH, ± 0.2nH	20	35	35	40	60	20000	0.08	500
1.8	± 0.05nH, ± 0.1nH, ± 0.2nH	20	35	35	40	60	20000	0.11	500
2.2	± 0.05nH, ± 0.1nH, ± 0.2nH	20	35	35	40	60	15000	0.12	500
2.7	± 0.05nH, ± 0.1nH, ± 0.2nH	20	30	30	40	50	12000	0.13	500
3.3	± 0.1nH, ± 0.2nH, ± 0.5nH	15	25	25	30	35	12000	0.25	300
3.9	± 0.1nH, ± 0.2nH, ± 0.5nH	15	25	25	30	35	10000	0.26	300
4.7	± 0.1nH, ± 0.2nH, ± 0.5nH	15	25	25	30	35	9000	0.26	300
5.6	± 0.1nH, ± 0.2nH, ± 0.5nH	13	20	20	30	35	7000	0.35	200
6.8	± 0.1nH, ± 0.2nH, ± 0.5nH	13	20	20	30	30	5700	0.40	200
8.2	± 0.1nH, ± 0.2nH, ± 0.5nH	13	20	20	30	30	4000	0.50	200
10.0	± 1%, ± 2%, ± 5%	13	20	20	30	30	3800	0.60	200
12.0	± 1%, ± 2%, ± 5%	13	20	20	30	30	3500	0.65	200
15.0	± 1%, ± 2%, ± 5%	13	20	20	30	30	3500	1.00	200
18.0	± 1%, ± 2%, ± 5%	13	20	20	20	20	3300	1.20	200
22.0	± 1%, ± 2%, ± 5%	13	20	20	20	20	3200	2.20	200

All intermediate Inductance values within the indicated range are available.

Designer Kit available : Accu-L0603KIT03 (Order Type 2400)

Kit includes 20pcs each of 20 values

	P/N	nH	Tol.
1	L0603R56AHL	0.56	±0.05 nH
2	L0603R68AHL	0.68	±0.05 nH
3	L0603R82AHL	0.82	±0.05 nH
4	L06031R0AHL	1.0	±0.05 nH
5	L06031R2AHL	1.2	±0.05 nH
6	L06031R5AHL	1.5	±0.05nH
7	L06031R8AHL	1.8	±0.05nH
8	L06032R2AHL	2.2	±0.05nH
9	L06032R7AHL	2.7	±0.05nH
10	L06033R3BHL	3.3	±0.1 nH

	P/N	nH	Tol.
11	L06033R9BHL	3.9	±0.1 nH
12	L06034R7BHL	4.7	±0.1 nH
13	L06035R6BHL	5.6	±0.1 nH
14	L06036R8BHL	6.8	±0.1 nH
15	L06038R2BHL	8.2	±0.1 nH
16	L0603100FHL	10.0	±1%
17	L0603120FHL	12.0	±1%
18	L0603150FHL	15.0	±1%
19	L0603180FHL	18.0	±1%
20	L0603220FHL	22.0	±1%