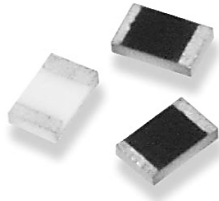


Type 3640 Series

Type 3640 Series



The 3640 series is an innovative thin film chip inductor designed for high frequency application in the communications industry. This inductor combines very small size (to 02:01) with a robustness and durability only previously seen in moulded parts.

Available in values down to 0.2 nanohenry and packaged in 5 standard sizes, this is the perfect solution for your design requirements.

Available via our distribution network.

Key Features

- Low Inductor Values
- Low DC Resistance
- High Q Factor
- High Self Resonant Frequency
- Suitable for Reflow Solder
- Lab Kits Available

Characteristics - Electrical 0201 Package

Inductance (nH)	Inductance Tolerance (% or nH)	Quality Factor (Min)	Measuring Frequency (MHz)	Resistance DC/Max. (Ohm)	Current DC/Max. (mA)	Self Resonant Frequency/Min. (GHz)
1	0.1/0.2/0.3 nH	8	500	0.3	300	9
1.1	0.1/0.2/0.3 nH	8	500	0.35	300	9
1.2	0.1/0.2/0.3 nH	8	500	0.35	300	9
1.3	0.1/0.2/0.3 nH	8	500	0.45	250	9
1.4	0.1/0.2/0.3 nH	8	500	0.45	250	9
1.5	0.1/0.2/0.3 nH	8	500	0.45	250	9
1.6	0.1/0.2/0.3 nH	8	500	0.55	200	9
1.7	0.1/0.2/0.3 nH	8	500	0.55	200	9
1.8	0.1/0.2/0.3 nH	8	500	0.55	200	9
1.9	0.1/0.2/0.3 nH	8	500	0.55	200	9
2	0.1/0.2/0.3 nH	8	500	0.7	200	8
2.1	0.1/0.2/0.3 nH	8	500	0.7	200	8
2.2	0.1/0.2/0.3 nH	8	500	0.7	200	8
2.3	0.1/0.2/0.3 nH	8	500	0.8	150	8
2.4	0.1/0.2/0.3 nH	8	500	0.8	150	8
2.5	0.1/0.2/0.3 nH	8	500	0.8	150	8
2.6	0.1/0.2/0.3 nH	8	500	0.8	150	8
2.7	0.1/0.2/0.3 nH	8	500	0.8	150	8
2.8	0.1/0.2/0.3 nH	8	500	1	150	6
2.9	0.1/0.2/0.3 nH	8	500	1	150	6
3	0.1/0.2/0.3 nH	8	500	1	150	6
3.1	0.1/0.2/0.3 nH	8	500	1	150	6
3.2	0.1/0.2/0.3 nH	8	500	1	150	6
3.3	0.1/0.2/0.3 nH	8	500	1	150	6
3.4	0.1/0.2/0.3 nH	8	500	1.2	150	6
3.5	0.1/0.2/0.3 nH	8	500	1.2	150	6
3.6	0.1/0.2/0.3 nH	8	500	1.2	150	6
3.7	0.1/0.2/0.3 nH	8	500	1.2	150	6
3.9	0.1/0.2/0.3 nH	8	500	1.2	150	6
4.7	0.1/0.2/0.3 nH	8	500	1.4	130	6
5.6	2 / 5 %	8	500	1.8	130	4
6.8	2 / 5 %	8	500	2.3	110	4
8.2	2 / 5 %	8	500	3	110	3
10	2 / 5 %	8	500	3.5	80	2

Characteristics - Electrical 0402 Package

Inductance (nH)	Inductance Tolerance (% or nH)	Quality Factor (Min)	Measuring Frequency (MHz)	Resistance DC/Max. (Ohm)	Current DC/Max. (mA)	Self Resonant Frequency/Min. (GHz)
0.2	0.1/0.2/0.3nH	13	500	0.1	800	14
0.4	0.1/0.2/0.3nH	13	500	0.1	800	14
0.8	0.1/0.2/0.3nH	13	500	0.15	700	14
1	0.1/0.2/0.3nH	13	500	0.15	700	12
1.1	0.1/0.2/0.3nH	13	500	0.15	700	12
1.2	0.1/0.2/0.3nH	13	500	0.15	700	12
1.3	0.1/0.2/0.3nH	13	500	0.25	700	10
1.4	0.1/0.2/0.3nH	13	500	0.25	700	10
1.5	0.1/0.2/0.3nH	13	500	0.25	700	10
1.6	0.1/0.2/0.3nH	13	500	0.25	560	10
1.7	0.1/0.2/0.3nH	13	500	0.25	560	10
1.8	0.1/0.2/0.3nH	13	500	0.25	560	10
1.9	0.1/0.2/0.3nH	13	500	0.35	560	8
2	0.1/0.2/0.3nH	13	500	0.35	560	8
2.1	0.1/0.2/0.3nH	13	500	0.35	440	8
2.2	0.1/0.2/0.3nH	13	500	0.35	440	8

Type 3640 Series

Characteristics - Electrical 0402 Package (continued)

Inductance (nH)	Inductance Tolerance (% or nH)	Quality Factor (Min)	Measuring Frequency (MHz)	Resistance DC/Max. (Ohm)	Current DC/Max. (mA)	Self Resonant Frequency/Min. (GHz)
2.3	0.1/0.2/0.3nH	13	500	0.35	440	8
2.4	0.1/0.2/0.3nH	13	500	0.35	440	8
2.5	0.1/0.2/0.3nH	13	500	0.35	440	8
2.6	0.1/0.2/0.3nH	13	500	0.35	440	8
2.7	0.1/0.2/0.3nH	13	500	0.35	440	8
2.8	0.1/0.2/0.3nH	13	500	0.45	380	6
2.9	0.1/0.2/0.3nH	13	500	0.45	380	6
3	0.1/0.2/0.3nH	13	500	0.45	380	6
3.1	0.1/0.2/0.3nH	13	500	0.45	380	6
3.2	0.1/0.2/0.3nH	13	500	0.45	380	6
3.3	0.1/0.2/0.3nH	13	500	0.45	380	6
3.4	0.1/0.2/0.3nH	13	500	0.55	380	6
3.5	0.1/0.2/0.3nH	13	500	0.55	380	6
3.6	0.1/0.2/0.3nH	13	500	0.55	380	6
3.7	0.1/0.2/0.3nH	13	500	0.55	340	6
3.8	0.1/0.2/0.3nH	13	500	0.55	340	6
3.9	0.1/0.2/0.3nH	13	500	0.55	340	6
4.7	0.1/0.2/0.3nH	13	500	0.65	320	6
5.6	0.1/0.2/0.3nH	13	500	0.85	280	6
5.9	0.1/0.2/0.3nH	13	500	0.85	280	6
6.8	0.1/0.2/0.3nH	13	500	1.05	260	6
7.2	0.1/0.2/0.3nH	13	500	1.05	260	6
8	0.1/0.2/0.3nH	13	500	1.25	220	5.5
8.2	0.1/0.2/0.3nH	13	500	1.25	220	5.5
9.1	0.1/0.2/0.3nH	13	500	1.25	220	5.5
10	1/2/3/5%	13	500	1.35	200	4.5
12	1/2/3/5%	13	500	1.55	180	3.7
13.8	1/2/3/5%	13	500	1.75	180	3.7
15	1/2/3/5%	13	500	1.75	130	3.3
17	1/2/3/5%	13	500	1.95	100	3.1
18	1/2/3/5%	13	500	2.15	100	3.1
20.8	1/2/3/5%	13	500	2.55	90	2.8
22	1/2/3/5%	13	500	2.65	90	2.8
27	1/2/3/5%	13	500	3.25	75	2.5
33	5%	13	500	4.5	75	2.5

Type 3640 Series

Characteristics - Electrical 0603 Package

Inductance (nH)	Inductance Tolerance (% or nH)	Quality Factor Min @ 500MHz	Measuring Frequency (MHz)	Resistance DC/Max. (Ohm)	Current DC/Max. (mA)	Self Resonant Frequency/Min. (GHz)
1	0.1/0.2/0.3nH	15	300	0.35	800	13
1.2	0.1/0.2/0.3nH	15	300	0.35	800	13
1.5	0.1/0.2/0.3nH	15	300	0.35	800	10
1.8	0.1/0.2/0.3nH	15	300	0.35	300	10
2.2	0.1/0.2/0.3nH	15	300	0.35	300	8
2.7	0.1/0.2/0.3nH	15	300	0.45	300	6
3.3	0.1/0.2/0.3nH	15	300	0.45	300	6
3.9	0.1/0.2/0.3nH	15	300	0.45	300	6
4.7	0.1/0.2/0.3nH	15	300	0.55	300	5
5.6	0.1/0.2/0.3nH	15	300	0.65	300	5
6.8	0.1/0.2/0.3nH	15	300	0.75	300	5
8.2	0.1/0.2/0.3nH	15	300	0.95	300	4
10	1/2/3/5%	15	300	0.95	300	4
12	1/2/3/5%	15	300	1.05	300	3
15	1/2/3/5%	15	300	1.35	300	3
18	1/2/3/5%	15	300	1.65	300	2
22	1/2/3/5%	15	300	1.95	250	2
27	1/2/3/5%	15	300	2.35	250	2
33	1/2/3/5%	15	300	2.75	250	1.5
39	1/2/3/5%	15	300	3	200	1.5
47	1/2/3/5%	15	300	3	200	1.5
56	1/2/3/5%	15	300	5	150	1
68	1/2/3/5%	15	300	5	150	1
100	2/3/5%	15	300	7.5	100	1

Characteristics - Electrical 0805 Package

Inductance (nH)	Inductance Tolerance (% or nH)	Quality Factor (Min)	Measuring Frequency (MHz)	Resistance DC/Max. (Ohm)	Current DC/Max. (mA)	Self Resonant Frequency/Min. (GHz)
1	±0.2 nH	20	500	0.25	900	13
1.2	±0.2 nH	20	500	0.25	900	13
1.5	±0.2 nH	20	500	0.25	900	10
1.8	±0.2 nH	25	500	0.25	900	9
2.2	±0.2 nH	25	500	0.25	800	8
2.7	±0.2 nH	25	500	0.25	800	8
3.3	±0.2 nH	25	500	0.25	800	6
3.9	±0.2 nH	25	500	0.25	800	6
4.7	±0.2 nH	25	500	0.50	700	5
5.6	±2% / ±5%	25	500	0.50	700	4.5
6.8	±2% / ±5%	25	500	0.50	500	4
8.2	±2% / ±5%	25	500	0.50	500	3
10	±2% / ±5%	25	500	1.00	400	2.5
12	±2% / ±5%	25	500	1.00	400	2.5
15	±2% / ±5%	25	500	1.00	300	2
18	±2% / ±5%	20	500	1.00	300	1.5
22	±2% / ±5%	20	500	1.50	250	1
27	±2% / ±5%	15	200	1.50	250	1
33	±2% / ±5%	15	200	1.50	200	1
39	±2% / ±5%	15	200	1.50	200	0.8
47	±2% / ±5%	15	200	1.50	200	0.8
56	±2% / ±5%	10	200	4.00	150	0.7
68	±2% / ±5%	10	200	5.00	150	0.7
82	±2% / ±5%	10	200	5.00	150	0.6

Type 3640 Series

Characteristics - Electrical 1206 Package

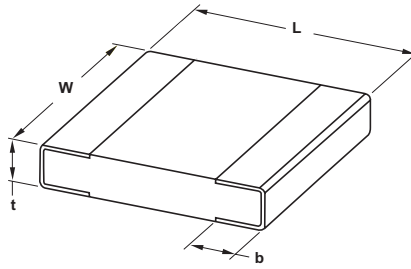
Inductance (nH)	Inductance Tolerance (% or nH)	Quality Factor (Min)	Measuring Frequency (MHz)	Resistance DC/Max. (Ohm)	Current DC/Max. (mA)	Self Resonant Frequency/Min. (GHz)
2.2	±0.2 nH	25	500	0.25	1000	9
2.7	±0.2 nH	25	500	0.25	1000	7
3.3	±0.2 nH	25	500	0.25	1000	6
3.9	±0.2 nH	35	500	0.25	900	5
4.7	±0.2 nH	35	500	0.5	900	4.5
5.6	±2% / ±5%	35	500	0.5	900	4
6.8	±2% / ±5%	35	500	0.5	800	3.5
8.2	±2% / ±5%	35	500	0.5	800	3
10	±2% / ±5%	40	500	0.5	800	2.5
12	±2% / ±5%	40	500	0.5	800	2.5
15	±2% / ±5%	40	500	1	500	2
18	±2% / ±5%	40	500	1	500	2
22	±2% / ±5%	40	500	1	500	1.5
27	±2% / ±5%	25	200	1	500	1.5
33	±2% / ±5%	25	200	2	400	1
39	±2% / ±5%	25	200	2	400	1
47	±2% / ±5%	25	200	2	400	1
56	±2% / ±5%	15	200	2	400	0.5
68	±2% / ±5%	15	200	2	200	0.5
82	±2% / ±5%	15	200	2	200	0.4
100	±2% / ±5%	15	200	2	200	0.4

Environmental Characteristics -

Item	Specification	Test Method
Dielectric Withstand Voltage:	>100V	100VAC(rms) for 1minute.
Insulation Resistance:	>1000MΩ	100VDC for 1minute
Resistance to Soldering Heat:	ΔL ≤10%	270±5°C, 10±1 second
High Temperature Exposure:	ΔL ≤10%	+85±2°C, 1000 +48/-0 hours
Moisture Resistance:	ΔL ≤10%	40±2°C, 90~95%RH, 1000 +48/-0 hours
Low Temperature Storage:	ΔL ≤10%	-40±3°C, 1000 +48/-0 hours
Temperature Cycle:	ΔL ≤10%	-40°C/RT/85°C/RT, 10 cycles
Solderability:	95%min coverage	MIL-STE-202F Method 208GH, 260°C ±5°C, 2±0.5 (sec)
Storage Temperature:		25 ±3°C;
Humidity:		<75%RH

Type 3640 Series

Dimensions



Series	L	W	t	b
0201	0.6±0.05	0.3±0.05	0.23±0.05	0.15±0.05
0402	1.0±0.05	0.5±0.05	0.32±0.05	0.2±0.1
0603	1.6±0.1	0.8±0.1	0.45±0.1	0.3±0.2
0805	2.0±0.2	1.25±0.2	0.5±0.1	0.3±0.2
1206	3.2±0.2	1.6±0.2	0.6±0.1	0.4±0.2

How to Order

3640	2A	1N0	G	TD
Common Part	Case Size	Inductance Value	Tolerance	Packaging
3640	1H – 0201 Package 1E – 0402 Package 1J – 0603 Package 2A – 0805 Package 3A – 1206 Package	See relevant table for Inductance Code	F - ±1% G - ±2% H - ±3% J - ±5% B - ±0.1nH A - ±0.2nH S - ±0.3nH	TD - 5000 pcs/reel TDF - 1000pcs/reel