



LC Series • Miniature Low Cost Toroidal Inductors

LC Series surface mount toroidal inductors are designed for use in applications where energy storage is required for maintenance of a highly stable inductance when a rapid change in load current occurs. These inductors are excellent for filtering high frequency signals while supporting a substantial DC current as well as for AC ripple, switch mode power supplies and for use with DC-DC Converters.

Features

- Operating frequency to 1 MHz
- High energy storage with minimum saturation
- High stability from no load to full load
- Pick and place compatible
- Designed as 1:1 Coupled Inductor (Series or Parallel) or as 1:1 Isolation Transformer
- Manufactured in an ISO-9001:2000, TS-16949:2002 and ISO-14001:2004 certified Talema facility
- Meets lead free reflow level J-STD-020C
- Fully RoHS compliant



Electrical Specifications at 25°C

Test frequency: Inductance measured @ 10kHz/10mV
 Test Voltage between windings: 500Vrms
 Operating Temperature: -40°C to +125°C
 Climatic category: IEC68-1 40/125/56

Applications

DC-DC Converters • Common Mode Filter • Computer Note Books
 Pulse Modulation Switching Regulators: Step-up, Step-down,
 Inverting or dual output • Filtering Battery Powered Equipment

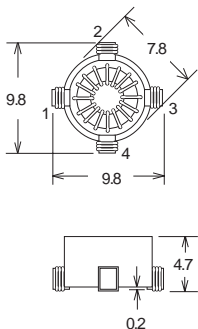
Part Number	Parallel Connected			Series Connected			Energy Storage (μJ) ²
	Full Load Current (A _{DC})	L _O (μH) ±15% No Load	DCR mOhm	Full Load Current (A _{DC})	L _O (μH) ±15% No Load	DCR mOhm	
LC1-3.00-2.2	3.00	2.2	9	1.50	8.8	36	7.0
LC1-2.10-4.7	2.10	4.7	16	1.05	18.8	64	7.2
LC1-1.40-10	1.40	10	37	0.70	40	148	7.2
LC1 1.10-15	1.10	15	58	0.55	60	232	7.0
LC1-0.92-22	0.92	22	86	0.46	88	344	7.1
LC1-0.76-33	0.76	33	133	0.38	132	532	7.2
LC1-0.64-47	0.64	47	205	0.32	188	820	7.1
LC1-0.54-68	0.54	68	307	0.27	272	1228	7.2
LC1-0.44-100	0.44	100	376	0.22	400	1504	7.2
LC1-0.36-150	0.36	150	719	0.18	600	2876	7.2
LC1-0.30-220	0.30	220	866	0.15	880	3464	7.3

Talema's engineering staff can assist in the design of other inductance values and sizes.

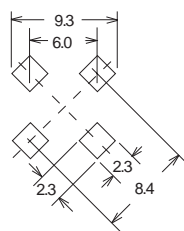
Note: The μJoule rating ($\frac{1}{2}LI^2$) is the ability of the inductor to store energy.

Dimensions

Bottom View



Suggested Pad Layout



Dimensions: Inches (Millimeters)

Tolerance: ±0.010 (0.25) unless specified otherwise

Schematic

