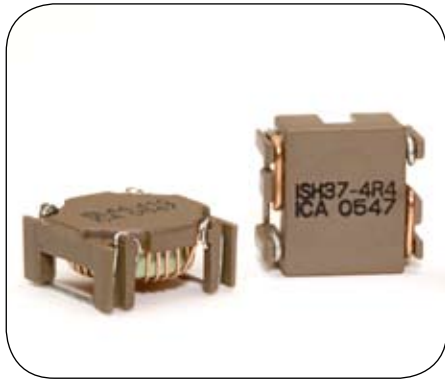


# ISL & ISH Series SMT Power Inductor



## Features

- Low Profile SMT Design
- Self-leaded for Improved Reliability
- Current Rating up to 14A
- Frequency Range up to 1MHz

## Applications

- DC/DC Converters
- Buck/Boost Converters
- Output Chokes



## Electrical Specifications

Part Number	Inductance <sup>2</sup> @ 0 Adc ( $\mu\text{H}$ , typ.)	Inductance <sup>2</sup> @ Ispec ( $\mu\text{H}$ , typ.)	( $\mu\text{H}$ , min.)	I <sub>SPEC</sub> (A)	DCR max ( $\text{m}\Omega$ )	ET (V-us)
ISL37-3R8	3.80	2.5	2.25	8.00	8.30	1.77
ISL37-7R5	7.50	5.1	4.59	5.40	17.70	2.51
ISL37-220	21.9	16.2	14.58	2.70	72	4.29
ISL37-730	73.0	58.1	52.29	1.30	290	7.83
ISL37-291	292	192	172.8	0.90	560	15.7
ISL37-671	672	383	344.7	0.72	862	23.5
ISH37-1R3	1.25	0.81	0.7	14.30	2.5	1.04
ISH37-2R1	2.10	1.32	1.2	11.50	4.0	1.33
ISH37-3R2	3.15	2.00	1.8	9.10	6.3	1.61
ISH37-4R4	4.40	2.78	2.5	8.10	7.9	1.91
ISL44-7R9	7.90	4.90	4.41	7.80	12.4	3.04
ISL44-140	14.0	9.00	8.1	5.50	28	4.06
ISL44-410	40.5	29.10	26.19	2.70	100	6.9
ISL44-112	1134	645.00	580.5	0.74	1250	36.5

1. Electrical specifications at 25°C.
2. Tested at 100kHz.
3. Operating temperature range: -40°C to +130°C. Operating temperature is a combination of ambient temperature plus temperature rise.
4. Meets UL 94V-0.
5. Specifications shown are for an inductor with a 55°C temperature rise. The core loss is 10% of the copper loss when operating at 500kHz.
6. Please remember it is much easier to remove heat from a copper-loss dominated design than from a core-loss dominated design.

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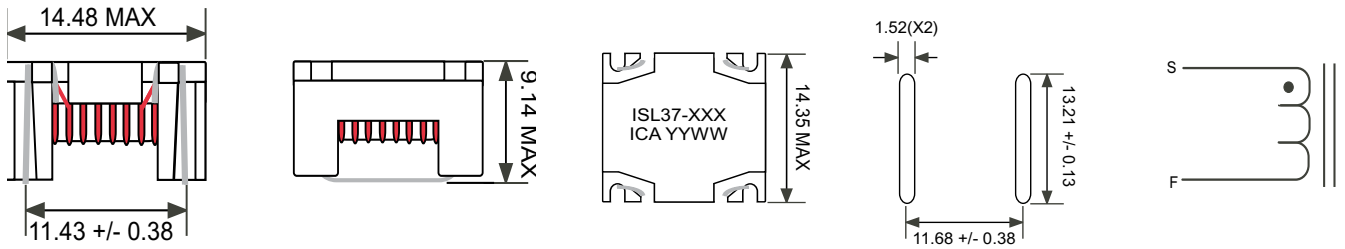


## Mechanical - ISL37

Packaging: Reel Diameter=13", Reel Width=32mm, Pieces/reel=300 pieces

### Recommended PCB Layout

### Schematic



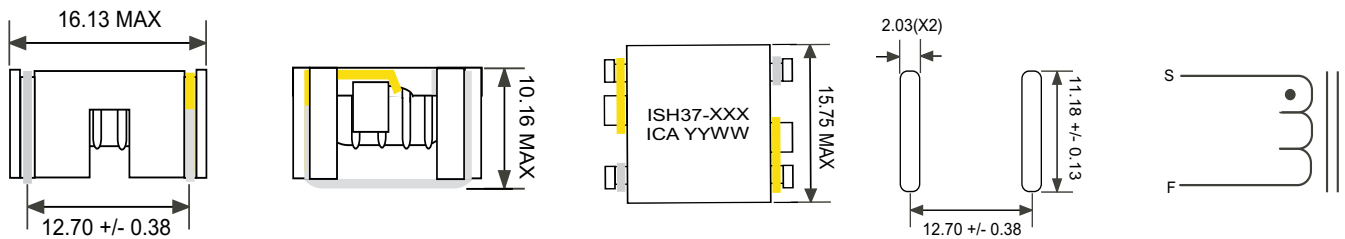
units: mm

## Mechanical - ISH37

Packaging: Reel Diameter=13", Reel Width=32mm, Pieces/reel=250 pieces

### Recommended PCB Layout

### Schematic



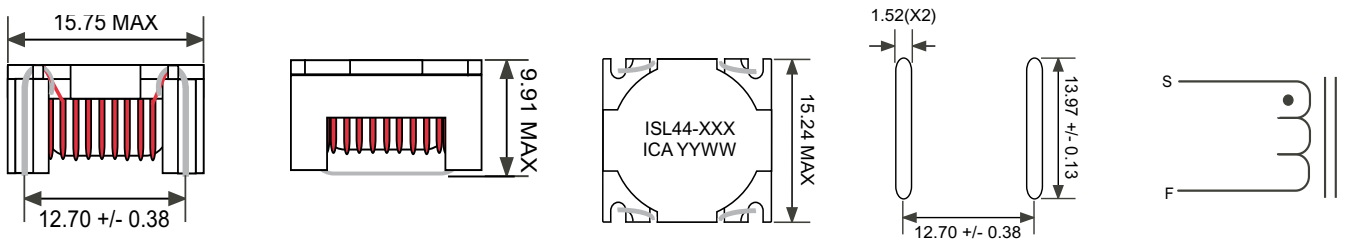
units: mm

## Mechanical - ISL44

Packaging: Reel Diameter=13", Reel Width=32mm, Pieces/reel=250 pieces

### Recommended PCB Layout

### Schematic



units: mm