Shielded Coupled Inductors  LPD3015

- Only 1.4 mm high and 3 mm square
- Ideal for use in flyback, multi-output buck, SEpic and Zeta applications.
- High inductance, high efficiency and excellent current handling
- Can also be used as two single inductors connected in series or parallel or as a common mode choke.

![Image of Shielded Coupled Inductors LPD3015]

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**Typical Flyback Converter**

**Typical Buck Converter with auxiliary output**

**Typical SEpic schematic**

**Typical Zeta schematic**

* Dimensions are of the case not including the termination. For maximum overall dimensions including the termination, add 0.005 in / 0.13 mm.

For optional tin-lead and tin-silver-copper terminations, dimensions are for the mounted part. Dimensions before mounting can be an additional 0.005 in / 0.13 mm.
### Coupled Inductors for SEPIC - LPD3015 Series

<table>
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</table>

1. When ordering, please specify termination and packaging codes: LPD3015-334MR
   - R = Matte tin over nickel over silver
   - Q = RoHS tin-silver-copper (95.5/4/0.5) or RoHS compliant (96.5/3.5/0.5)
   - P = non-RoHS tin-lead (63/37)

2. DCR is for each winding. When leads are connected in series, DCR is four times the value.
3. SRF measured using an Agilent/HP 4191A or equivalent. When leads are connected in parallel, SRF is the same value.
4. SRF is half the value. When leads are connected in series, inductance is half the value.
5. Leakage Inductance is for L1 and is measured with L2 shorted.
6. Center tap DC current at 25°C. It is the sum of the current flowing in both windings.

### Coupled Inductor Core and Winding Loss Calculator

This web-based utility allows you to enter frequency, peak-to-peak (ripple) current, and Irms current to predict temperature rise and overall losses, including core loss. Go to online calculator.

#### Core material
- Ferrite

#### Core and winding loss
- Go to online calculator

#### Weight
- 45 – 52 mg

#### Terminations
- RoHS compliant matte tin over nickel over silver.
- Other terminations available at additional cost.

#### Ambient temperature
- –40°C to +85°C with (40°C rise) Irms current.

#### Maximum part temperature
- +125°C (ambient + temp rise).

#### Storage temperature
- Component: –40°C to +125°C.
- Tape and reel packaging: –40°C to +80°C

#### Winding to winding isolation
- 100 Vrms.

#### Resistance to soldering heat
- Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles.

#### Moisture Sensitivity Level (MSL)
- 1 (unlimited floor life at ≤30°C / 85% relative humidity)

#### Packaging
- 1000/7” reel; 3500/13” reel
- Plastic tape: 12 mm wide, 0.26 mm thick, 8 mm pocket spacing, 1.65 mm pocket depth

#### Recommended pick and place nozzle
- OD: 3 mm; ID: ≤1.5 mm

#### PCB washing
- Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc:787_PCB_Washing.pdf

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[1] Specifications subject to change without notice. Please check our website for latest information.
[2] Coupled Inductors for SEPIC - LPD3015 Series

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Refer to Doc 639 “Selecting Coupled Inductors for SEPIC Applications.”
Refer to Doc 362 “Selecting Surface Mount Components” before soldering.
Coupled Inductors for SEPIC - LPD3015 Series

Typical L vs Current

Typical L vs Frequency