Coupled Inductors – LPR6235

For Step-Up, Resonant & Flyback Applications

- Can be used as step-up or flyback transformers in DC-DC converters or as autotransformers
- Perfect for low voltage step-up in energy harvesting applications
- Selected by Linear Technology for the LTC3108 and LTC3109 Ultralow Voltage Step-Up Converter and Power Managers

These shielded parts are only 3.5 mm high and 6 mm square. The excellent coupling coefficient (k = 0.95) makes them ideal for use in a variety of applications. They can be used as flyback transformers and step-up pulse transformers.

The high Isat and low DCR ratings of these parts provide high efficiency and excellent current handling in a rugged, low cost design.

Custom inductance values and turn ratios may be available upon request.

<table>
<thead>
<tr>
<th>Part number</th>
<th>Turns ratio</th>
<th>Primary (L1) inductance</th>
<th>DCR max (Ohms)</th>
<th>SRF typ (kHz)</th>
<th>Isat (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LPR6235-253LMR</td>
<td>1: 10</td>
<td>25</td>
<td>0.74</td>
<td>13.7</td>
<td>1300</td>
</tr>
<tr>
<td>LPR6235-253PMR</td>
<td>1: 20</td>
<td>25</td>
<td>0.20</td>
<td>72</td>
<td>580</td>
</tr>
<tr>
<td>LPR6235-123QMR</td>
<td>1: 50</td>
<td>12.5</td>
<td>0.085</td>
<td>200</td>
<td>360</td>
</tr>
<tr>
<td>LPR6235-752RMR</td>
<td>1: 90</td>
<td>7.5</td>
<td>0.085</td>
<td>285</td>
<td>257</td>
</tr>
<tr>
<td>LPR6235-752SMR</td>
<td>1: 100</td>
<td>7.5</td>
<td>0.085</td>
<td>316</td>
<td>230</td>
</tr>
</tbody>
</table>

1. When ordering, please specify packaging code:

   LPR6235-253PMRC

   Packaging:  
   C = 7” machine-ready reel. EIA-481 embossed plastic tape (350 parts per full reel).  
   B = Less than full reel. In tape, but not machine ready. To have a leader and trailer added ($25 charge), use code letter D instead.  
   D = 13” machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (1500 parts per full reel).

2. Inductance is measured at 100 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4284A LCR meter or equivalent.
3. SRF measured using an Agilent/HP 4191A or equivalent.
4. DC current applied to L1, at which the inductance drops 10% from its value without current.
5. Electrical specifications at 25°C.

Refer to Doc 362 “Soldering Surface Mount Components” before soldering.
Step-Up/Flyback Transformers – LPR6235

Core material: Ferrite
Weight: 460 – 480 mg
Environmental: RoHS compliant, halogen free
Terminations: RoHS compliant matte tin over nickel over silver. Other terminations available at additional cost.
Ambient temperature: –40°C to +85°C
Storage temperature: Component: –40°C to +125°C. Tape and reel packaging: –40°C to +80°C
Winding to winding isolation: 300 Vrms
Resistance to soldering heat: Max three 40 second refows at +260°C, parts cooled to room temperature between cycles
Moisture Sensitivity Level (MSL): 1 (unlimited floor life at <30°C / 85% relative humidity)
Mean Time Between Failures (MTBF): 26,315,789 hours
Failures in Time (FIT): 38 per one billion hours
Packaging: 350/7” reel; 1500/13” reel. Plastic tape: 16 mm wide, 0.3 mm thick, 12 mm pocket spacing, 3.68 mm pocket depth
Recommended pick and place nozzle: OD: 6.2 mm; ID: ≤ 3.1 mm
PCB washing: Tested with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf.

Dimensions are in inches

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Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Coilcraft:
LPR6235-253PMLC  LPR6235-752SMLC  LPR6235-752RMLC  LPR6235-752RMLB  LPR6235-253LMLB  LPR6235-752SMLB  LPR6235-123QMLB  LPR6235-253LMLC  LPR6235-123QMLC  LPR6235-253PMLB