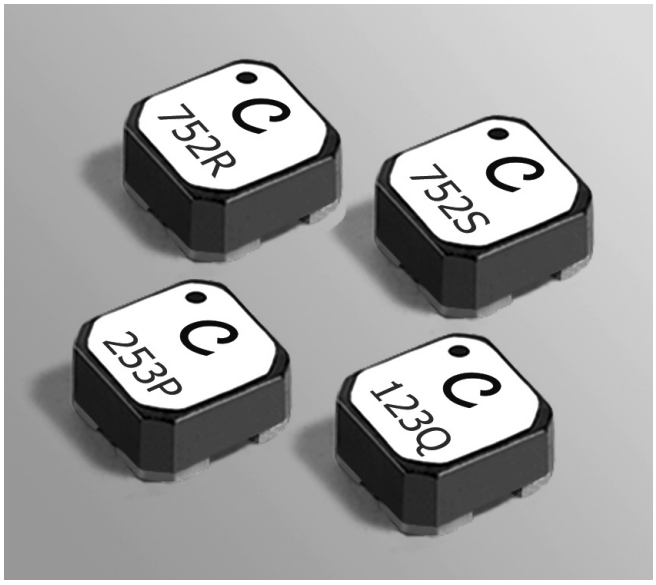
Coupled Inductors – LPR6235

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.

Part number[1]	Turns ratio	Primary (L1) inductance[2] ±20% (µH)	DCR max (Ohms) L1	DCR max (Ohms) L2	SRF typ[3] (kHz)	Isat[4] (A)
LPR6235-253LMR_	1 : 10	25	0.74	13.7	1300	1.3
LPR6235-253PMR_	1 : 20	25	0.20	72	580	0.7
LPR6235-123QMR_	1 : 50	12.5	0.085	200	360	0.9
LPR6235-752RMR_	1 : 90	7.5	0.085	285	257	1.6
LPR6235-752SMR_	1 : 100	7.5	0.085	340	230	1.6

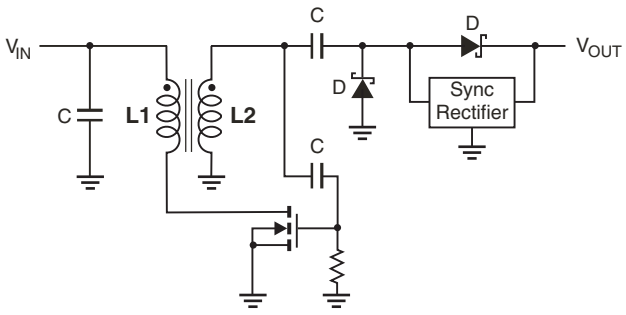
1. When ordering, please specify **packaging** code:

LPR6235-253PMRC

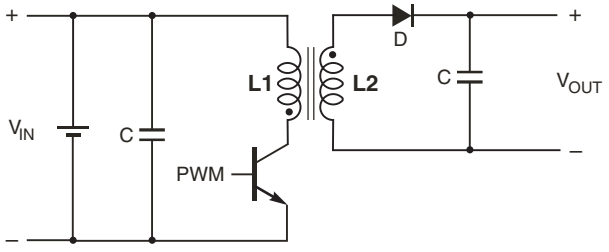
Packaging: **C** = 7″ machine-ready reel. EIA-481 embossed plastic tape (350 parts per full reel).
B = Less than full reel. In tape, but not machine ready. To have a leader and trailer added ($25 charge), use code letter D instead.
D = 13″ machine-ready reel. EIA-481 embossed plastic tape. Factory order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



Typical Step-Up Converter

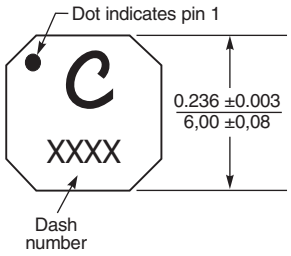


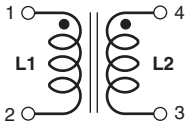
Typical Flyback Converter

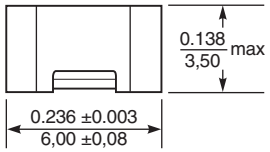
Coilcraft
www.coilcraft.com

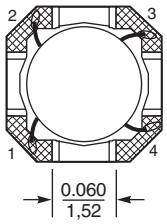
US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore + 65-6484 8412 sales@coilcraft.com.sg

Step-Up/Flyback Transformers – LPR6235



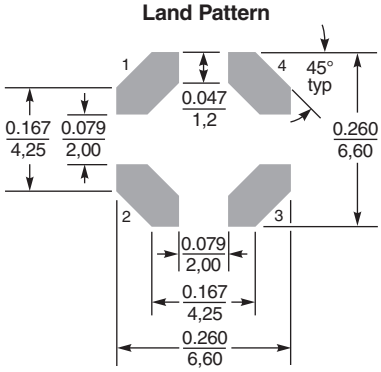






Dimensions are in inches / mm

Recommended Land Pattern



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 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)

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 to MIL-STD-202 Method 215 plus an additional aqueous wash. See Doc787_PCB_Washing.pdf.

Coilcraft
www.coilcraft.com

US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore + 65-6484 8412 sales@coilcraft.com.sg