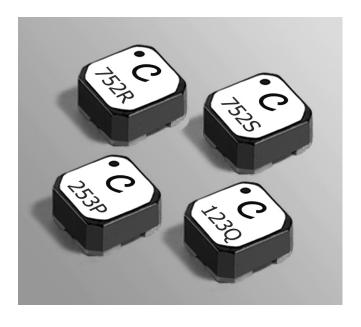


## Coupled Inductors – LPR6235 For Step-Up, Resonant & Flyback Applications



- 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.

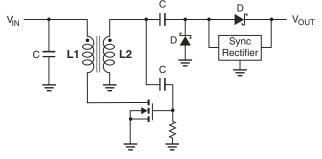
Part	Turns	Primary (L1) inductance <sup>2</sup>	DCR max (Ohms)		SRF typ <sup>3</sup>	Isat <sup>4</sup>
number <sup>1</sup>	ratio	±20% (µH)	L1	L2	(kHz)	(A)
LPR6235-253LML_	1:10	25	0.74	13.7	1300	1.3
LPR6235-253PML_	1:20	25	0.20	72	580	0.7
LPR6235-123QML_	1:50	12.5	0.085	200	360	0.9
LPR6235-752RML_	1:90	7.5	0.085	285	257	1.6
LPR6235-752SML_	1:100	7.5	0.085	316	230	1.6

1. When ordering, please specify packaging code:

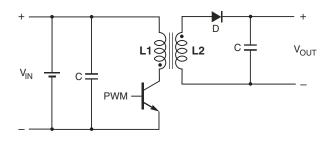
## LPR6235-253PMLC

- 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
  - D = 13" machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (1500 parts per full
- 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** 

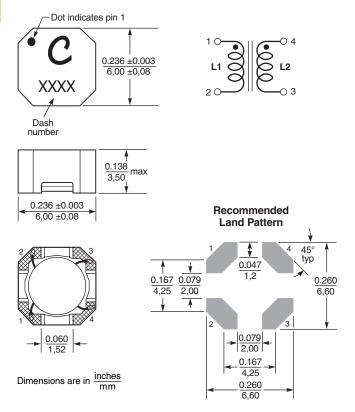


**Typical Flyback Converter** 





## Step-Up/Flyback Transformers – LPR6235



Core material Ferrite

Weight 460 - 480 mg

**Terminations** RoHS compliant silver-palladium-platinum-glass frit. Other terminations available at additional cost.

Ambient temperature -40°C to +85°C with Irms current, +85°C to +125°C with derated current

**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  $<30^{\circ}\text{C}$  / 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:  $\leq$  3.1 mm

**PCB washing** Tested with pure water or alcohol only. For other solvents, see Doc787\_PCB\_Washing.pdf.

