

Fig. 11: SEPIC converter for 5 V input range 4-7 V.

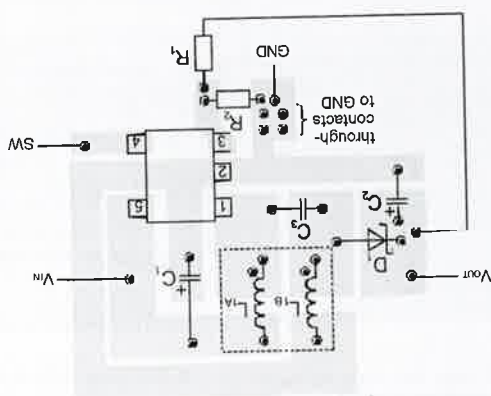


Fig. 12: Recommended SEPIC converter board layout.

Inductors for LT1613:

The recommendation from Linear Technology is to use inductors with a current rating of at least 0.5 A and a DC resistance less than 0.5 Ω .

The following inductor values apply, depending on the application:

- Step-up converter $V_{in} < 3.3\text{ V} \Rightarrow 4.7\text{ }\mu\text{H}$
- Step-down converter $V_{in} > 3.3\text{ V} \Rightarrow 10\text{ }\mu\text{H}$
- SEPIC converter $22\text{ }\mu\text{H}$

Suitable miniature storage chokes are:

- 744 773 047 SMD storage choke, open construction, 4,7 μ H, 1,3 A, 0,10 Ω
- 744 773 10 SMD storage choke, open construction, 10 μ H, 1,0 A, 0,18 Ω
- 744 773 122 SMD storage choke, open construction, 22 μ H, 0,7 A, 0,37 Ω

Inductor values

Board layout