



EVAL6902D

L6902D 1A Constant current battery charger evaluation board

Data Brief

General description

The L6902D evaluation board integrates the step-down switching regulator with adjustable current limit L6902D as well as the external components required for a typical application.

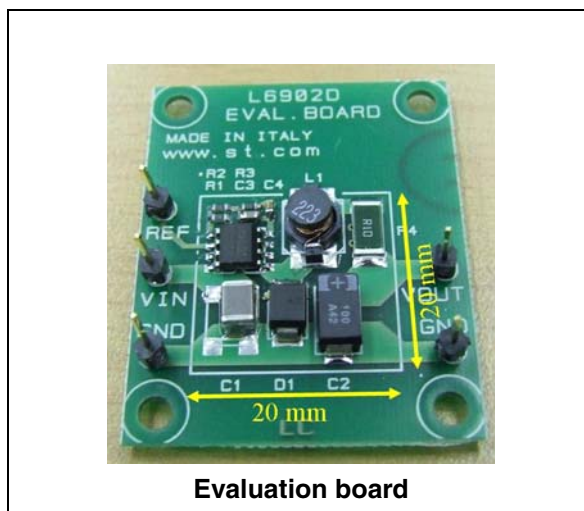
The input voltage of the application board can range from 8V up to 25V due to the rated voltage of the input capacitor and the schottky rectifier repetitive peak reverse voltage (both 25V).

The external resistor divider (R1 and R2) sets the output voltage of the application board to 3.3V.

A different output voltage can be regulated from 1.235V up to 10V, which is the rated voltage of the output capacitor.

A current limit of 1A is programmed by the 100m Ω sense resistor R_{sense} .

The inductor saturation current and the forward current of the schottky rectifier fit the current limit setting.



Evaluation board

Figure 1. Application test circuit

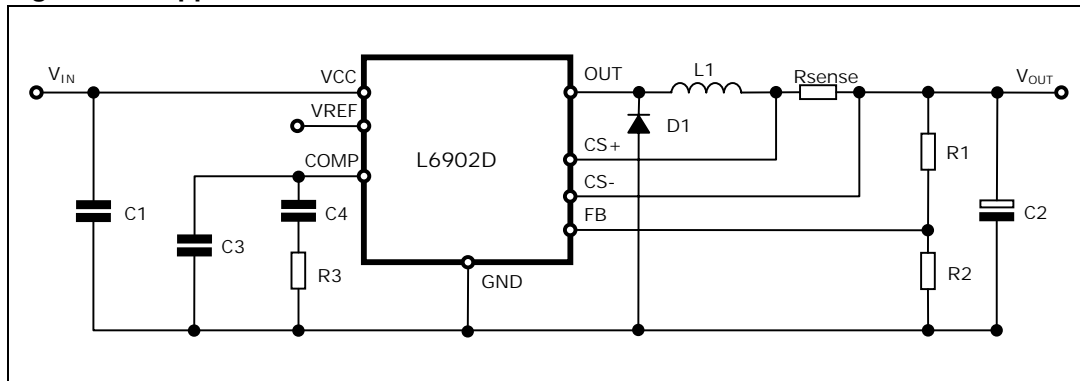


Figure 2. Package

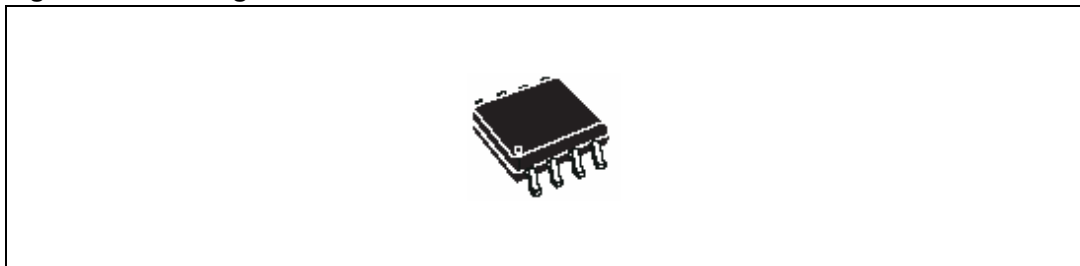


Table 1. Demoboard part list

| Name | Value | P/N | Manufacturer | Notes |
|--------------------|----------------|----------------|--------------|-----------|
| C1 | 10 μ F | C4532X5R1E106M | TDK | |
| C2 | 100 μ F | 10TPB100M | POSCAP | |
| D1 | | STPS2L25U | ST | |
| L1 | 22 μ H | DO1813HC-223 | COILCRAFT | |
| Device | | L6902D | ST | |
| R1 | 8.2 k Ω | | | 0603, 1% |
| R2 | 3.3 k Ω | | | 0603, 1% |
| R3 | 4.7 k Ω | | | 0603, 1% |
| C3 | 220pF | | | 0603, 50V |
| C4 | 22nF | | | 0603, 50V |
| R _{sense} | 100m Ω | | | |

1 Revision history

Table 2. Revision history

| Date | Revision | Changes |
|-------------|----------|-------------|
| 17-Oct-2006 | 1 | First issue |

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