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## 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.

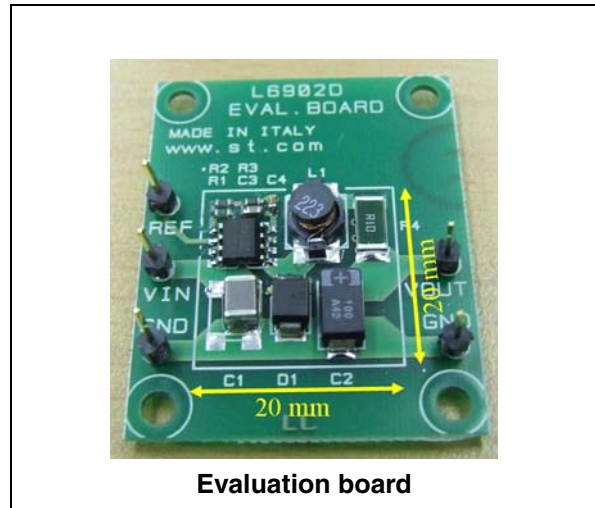
The input voltage of the application board can range from 8V up to 25V due to the rated voltage of the input capacitor and the schottky rectifier repetitive peak reverse voltage (both 25V).

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 100mΩ sense resistor  $R_{\text{sense}}$ .

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



Evaluation board

Figure 1. Application test circuit

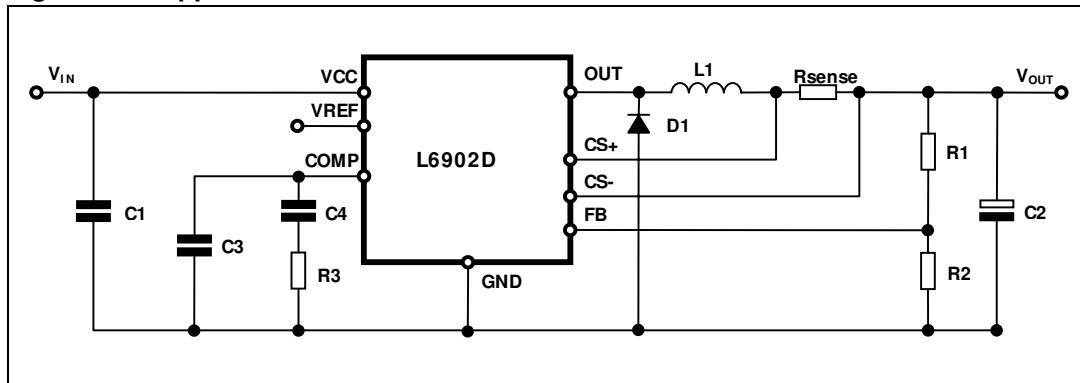


Figure 2. Package

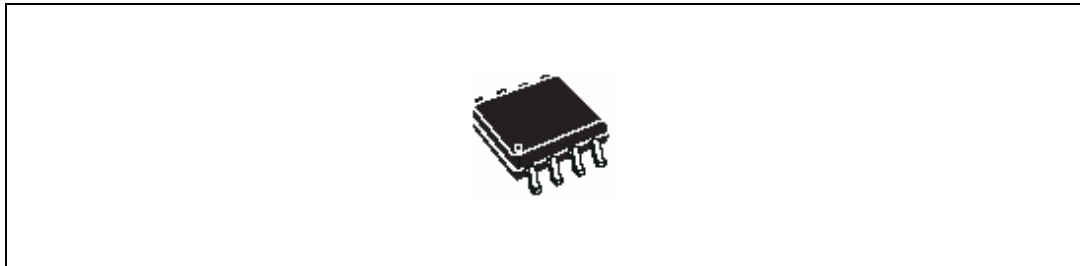


Table 1. Demoboard part list

Name	Value	P/N	Manufacturer	Notes
C1	10 $\mu$ F	C4532X5R1E106M	TDK	
C2	100 $\mu$ F	10TPB100M	POSCAP	
D1		STPS2L25U	ST	
L1	22 $\mu$ H	DO1813HC-223	COILCRAFT	
Device		L6902D	ST	
R1	8.2 k $\Omega$			0603, 1%
R2	3.3 k $\Omega$			0603, 1%
R3	4.7 k $\Omega$			0603, 1%
C3	220pF			0603, 50V
C4	22nF			0603, 50V
R <sub>sense</sub>	100m $\Omega$			

# 1      **Revision history**

**Table 2.**      **Revision history**

<b>Date</b>	<b>Revision</b>	<b>Changes</b>
17-Oct-2006	1	First issue

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