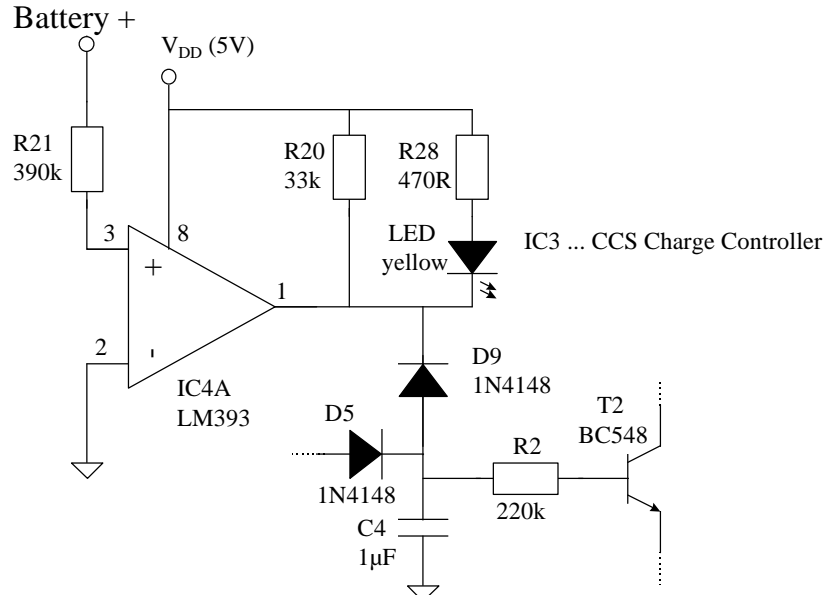


Application Note 843-1 applies to the CCS Charge Controllers without LE Pin

■ CCS9310CTC and CCS9310B2

Reverse Polarity Protection for CCS Charge Controllers without LE Pin



Component numbers and values are referred to the typical charge circuit described in Datasheets or in the CCSEB Evaluation Board Manual.

Functional Description:

With this additional application it is possible to detect Reverse Battery Polarity in CCS charger circuits. In the case of wrong connected battery, the circuit

- A) signals „Wrong Polarity“ (yellow LED on) and
- B) disables charge current.

CCS Charge Controllers without LE Pin

When a battery with wrong polarity is connected, Pin 1 of LM393 changes to low level (0V). Through an additional Diode D9, C4 is shorted, and the current for the Watch Dog Circuit (R2, T2) is disabled. At the same time the yellow LED is activated.

Remark: The reverse polarity detection is not foreseen in the layout of the CCSEB PCB. Therefore some changes on the PCB (disconnection of wires, changes of resistors, etc.) must be made.

Comments: Our aim is to help you best in the design of superior chargers with CCS-technology. This Application Note was carefully composed. However, according to the wide range of solutions not all aspects and possibilities can be covered by this publication. Furthermore errors cannot be completely excluded and we do not provide any responsibility for the given applications. Therefore we welcome your response comments and suggestions for further improving our CCS-Application Notes. **Thank you!**

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