

bq77905 Pin Equivalent Diagrams

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BMS: BMP

ABSTRACT

This document shows pin equivalent diagrams for the bq77905 and bq77904 pins which may be beneficial in circuit analysis.

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1 Introduction

The bq77905 and bq77904 3-5S stackable Lithium-ion battery protector serves as part of a complete pack monitoring and protection solution for next-generation, high-power systems, such as light electric vehicles, power tools, and uninterruptible power supplies.

In many of these applications, a variety of failure mode effects analysis (FMEA) may be undertaken. To support this, and other kinds of design analysis, an additional level of information regarding the IC pins may be required and is presented in this document.

2 Pin Configurations

Figure 1 illustrates the 20-TSSOP bq77905.

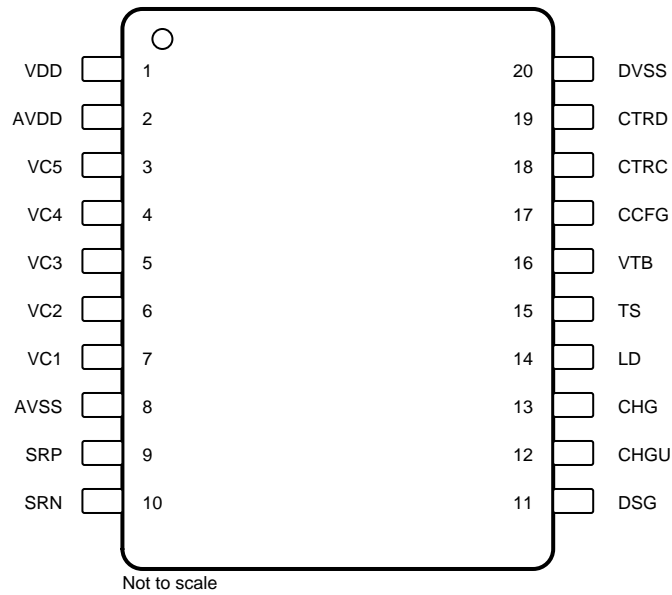


Figure 1. bq77905 20-TSSOP

3 Equivalent Pin Diagrams

All pins have an ESD structure, in most diagrams it is not shown. AVSS and DVSS are reference pins for the internal circuitry, these are not directly connected together internally and must be connected together on the board.

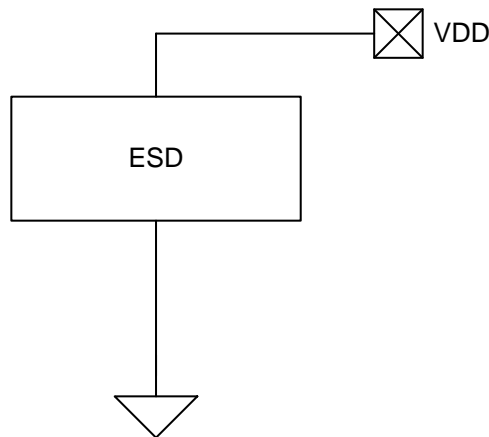


Figure 2. VDD

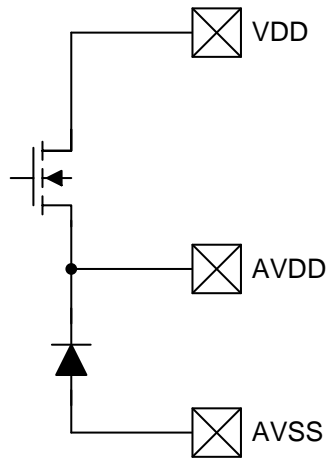


Figure 3. AVDD

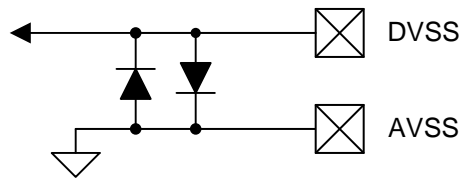


Figure 4. DVSS

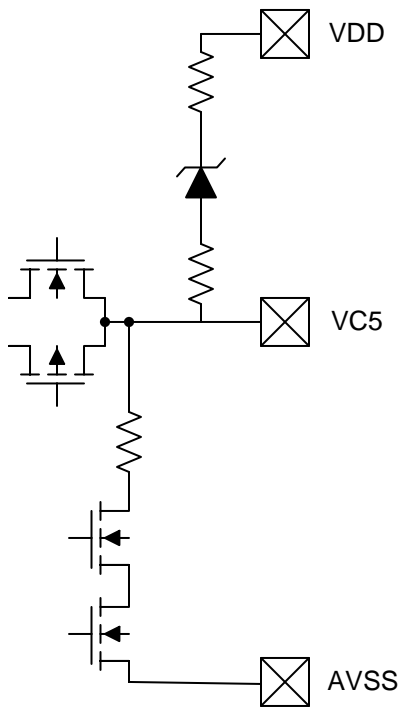


Figure 5. VC5

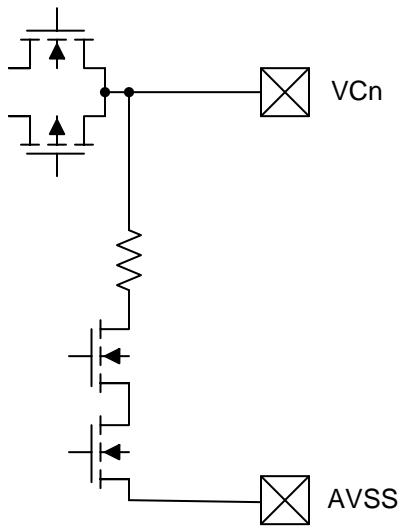


Figure 6. VC4, VC3, VC2, VC1

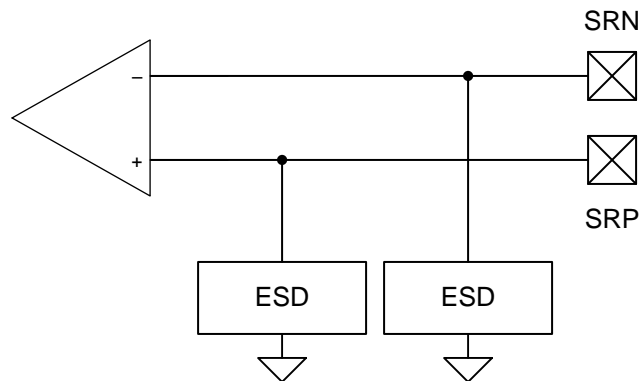


Figure 7. SRP and SRN

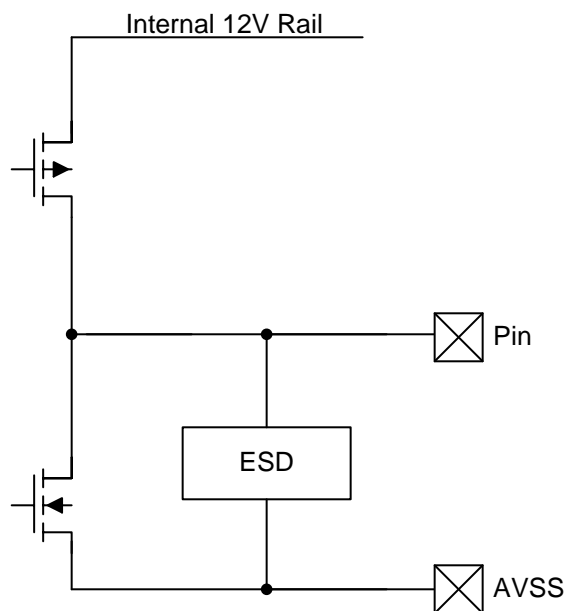


Figure 8. DSG, CHGU

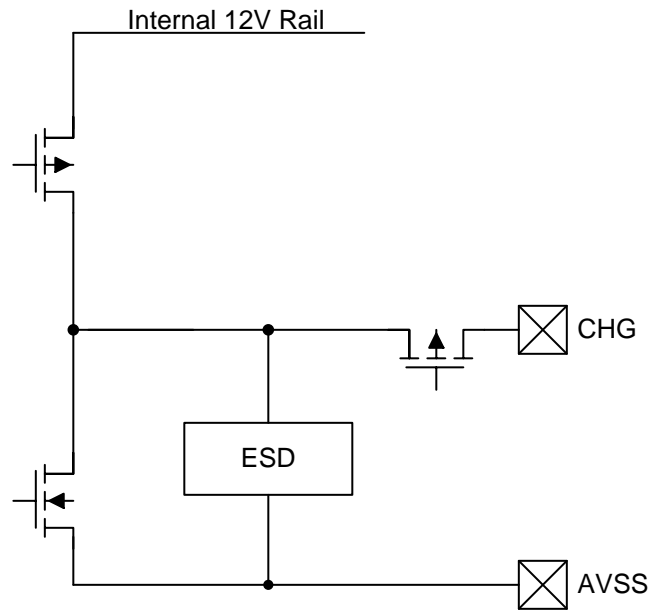


Figure 9. CHG

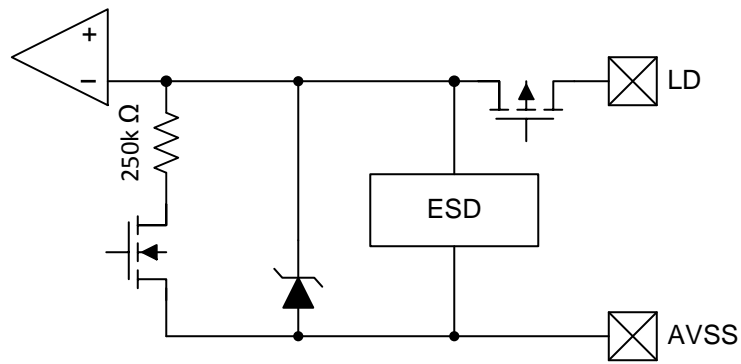


Figure 10. LD

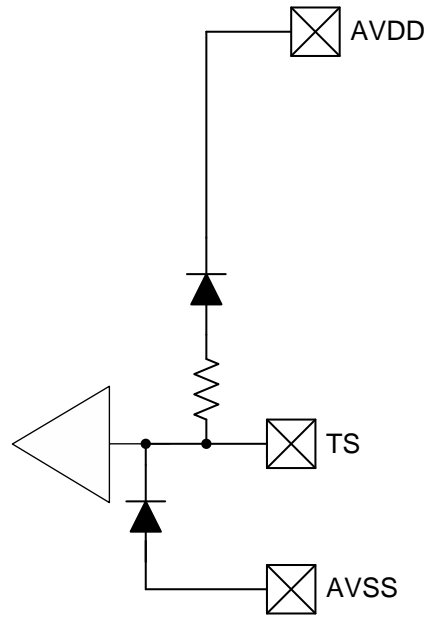


Figure 11. TS

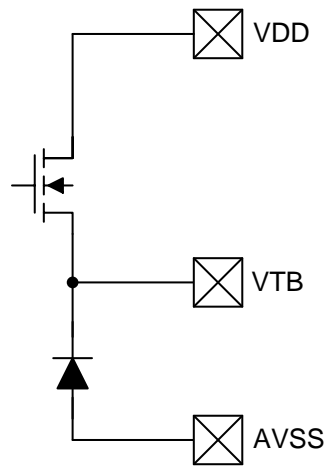


Figure 12. VTB

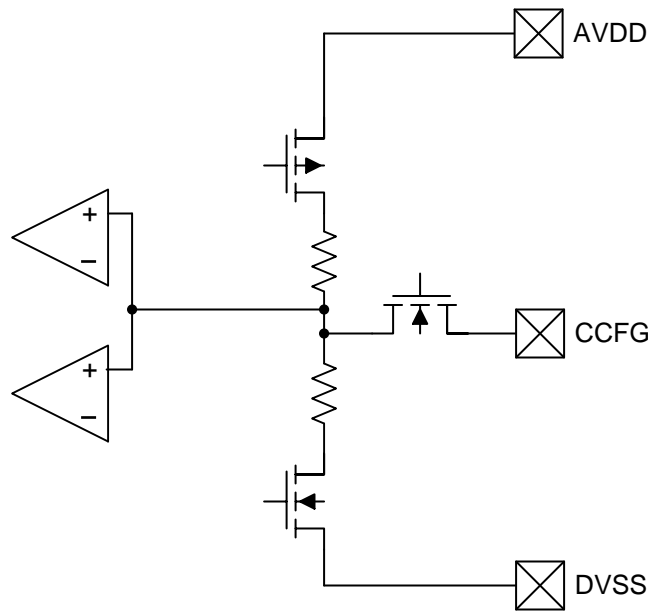


Figure 13. CCFG

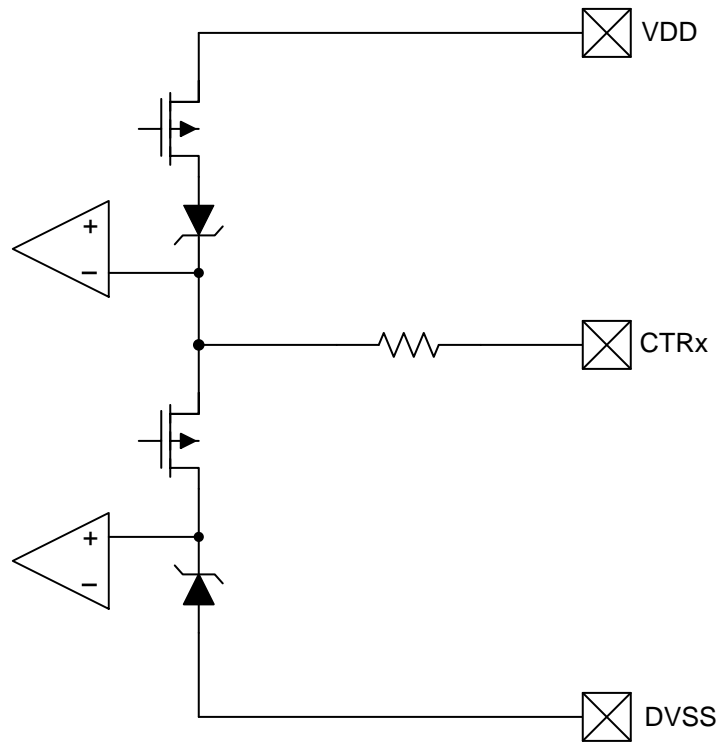


Figure 14. CTRC, CTRD

4 References

1. Texas Instruments, [bq77905, bq77904 3-5S Ultra Low-Power Voltage, Current, Temperature, and Open Wire Stackable Lithium-ion Battery Protector](#)
2. Texas Instruments, [bq77905 3-5S Low Power Protector Evaluation Module](#)

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