

Module

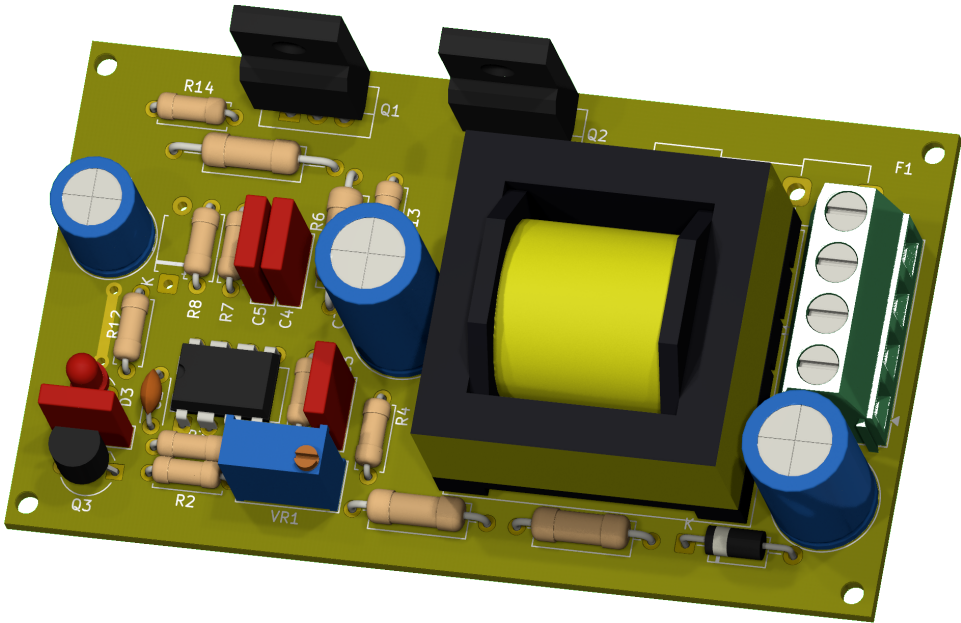
Variant: CHECKED

Rev 1.0.1+ (Unreleased)

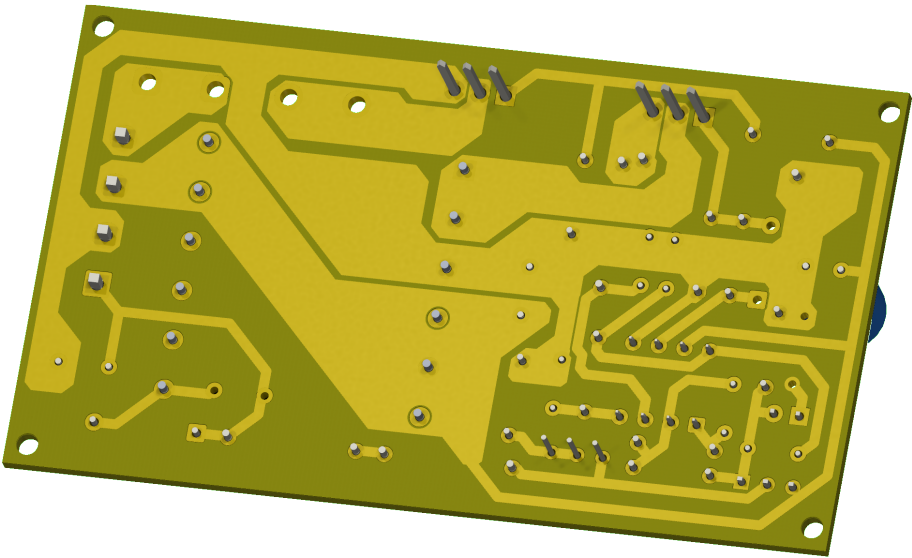
2025-12-21

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TOP VIEW



BOTTOM VIEW



DRAFT - Early concept stage, schematic drafted.

PRELIMINARY - Minor schematic changes are expected, ready for layout planning.

CHECKED - DRC completed, schematic and layout ready for review.

RELEASED - Design ready for manufacturing.

NOTE STYLING CONVENTION

DESIGN NOTE:
Example text for
informational
design notes.

DESIGN NOTE:
Example text for
debug notes.

DESIGN NOTE:
Example text for
cautionary
design notes.

DESIGN NOTE:
Example text for
critical design
notes.

LAYOUT NOTE:
Example text for
critical layout
guidelines.

Date: 21-Dec-2025

| | | | | | |
|--|------------------|--|-----------------|--|----------------------------------|
| | Comments: | Company: FR | | Variant: CHECKED | Git Hash: 25e1572 |
| | Sheet Title: | Board Name: Module | | Project Name: Step-up module 12:450 V | |
| | Sheet Path: / | File Name: StepUp_module_12to450V.kicad_sch | Designer: FR | Date: 2025-12-20 | Revision: 1.0.1+ (Unreleased) |
| | | Reviewer: NA | Size: A3 | Sheet: 1 of 4 | |

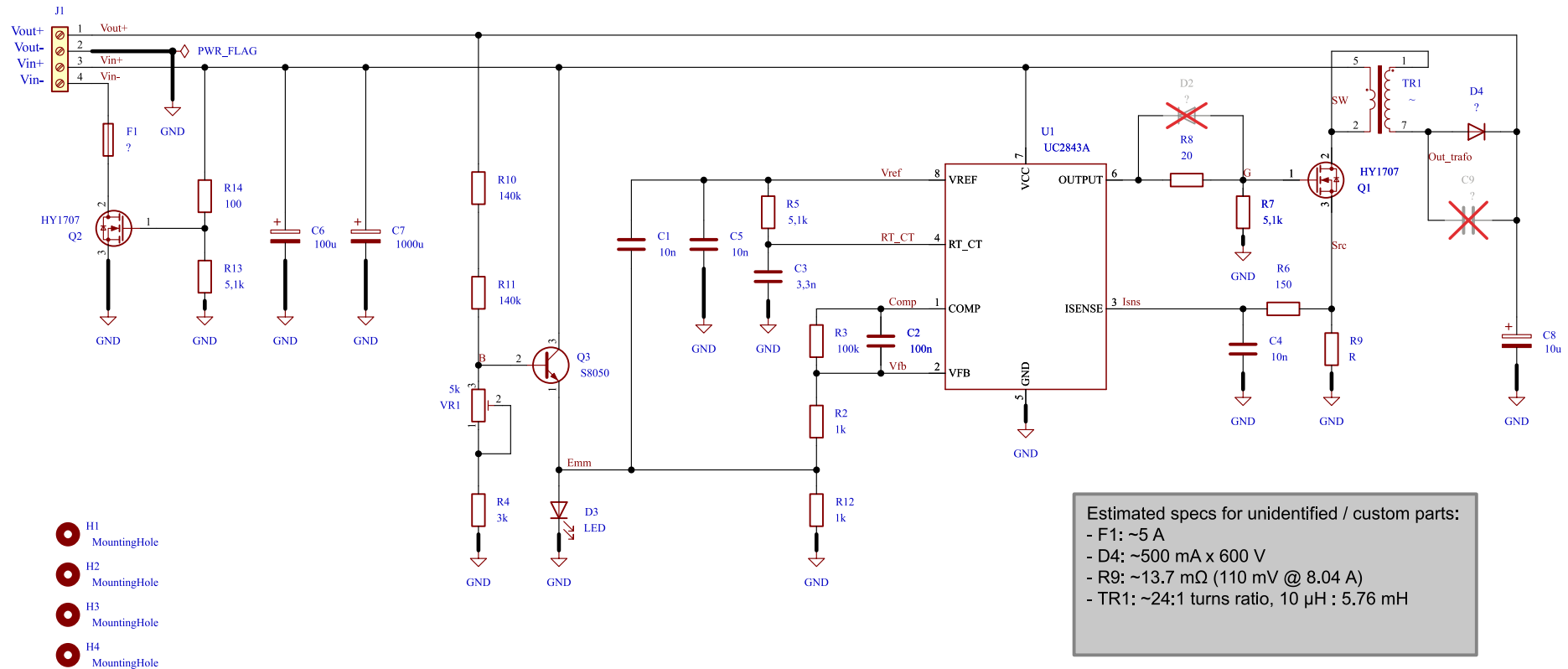
[2] Block Diagram

MODULE INTERFACE:
Vin: 9 V to 24 V according
to AliExpress product page
Vout: 200 V to 450 V,
adjustable through VR1



| | | | | | | | |
|--|--|--|--|--|---|-----------------------------|---|
| | Comments: AliExpress module example (link) | | Company: FR | | Variant: CHECKED | Git Hash: 25e1572 | |
| | | | Board Name: Module | | Project Name: Step-up module 12:450 V | | |
| | Sheet Title: Block Diagram | | File Name: Block Diagram.kicad_sch | | Designer: FR | Date: 2025-12-20 | Revision: 1.0.1+ (Unreleased) |
| | Sheet Path: /Block Diagram/ | | | | Reviewer: NA | Size: A4 | Sheet: 2 of 4 |

[3] Schematic



| | | | | | |
|--------------|---------------------------|---------------------|-----------|-------------------------|---------------------|
| | Comments: | Company: | | Variant: | Git Hash: |
| | | FR | | CHECKED | 25e1572 |
| | | Board Name: | | Project Name: | |
| | | Module | | Step-up module 12:450 V | |
| Sheet Title: | Schematic | File Name: | Designer: | Date: | Revision: |
| | | Schematic.kicad_sch | FR | 2025-12-20 | 1.0.1+ (Unreleased) |
| Sheet Path: | /Block Diagram/Schematic/ | | Reviewer: | Size: | Sheet: |
| | | | NA | A4 | 3 of 4 |

[4] Revision History

Version 1.0.0 - 2025-12-19

First issue

Schematic capture complete, except for parts:

- not populated (D2, C9);
- with unreadable or absent markings (F1, D4, R9, TR1).

CI failed on release - do not use.

Version 1.0.1 - 2025-12-21

| | | | | | |
|--|-----------------------------------|--|-----------------|--|----------------------------------|
| | Comments: | Company: FR | | Variant: CHECKED | Git Hash: 25e1572 |
| | | Board Name: Module | | Project Name: Step-up module 12:450 V | |
| | Sheet Title: Revision History | File Name: Revision History.kicad_sch | Designer: FR | Date: 2025-12-20 | Revision: 1.0.1+ (Unreleased) |
| | Sheet Path: /Revision History/ | | Reviewer: NA | Size: A4 | Sheet: 4 of 4 |