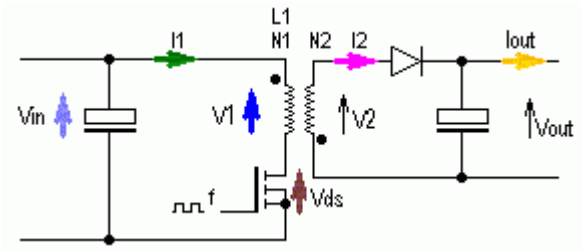
Home Help Print

Fly-back Converter



V_{in_min} / V	V_{in_max} / V	V_{in} / V for the calculations
400	400	400

V_{out} / V	I_{out} / A	f / kHz	
24	4	50	Calculate

☑ **Proposal** L_1 / H : 4.049E-3 Transformer Data

☐ **Proposal** N_1 / N_2 : 5

The values of all input fields can be changed.
The proposed values for L_1 and for the turns ratio N_1 /N_2 are chosen such that the converter works at the border between continuous and discontinuous mode for the average input voltage and with a duty cycle of 50%.
Tip: The higher N_2 , the lower the maximum transistor voltage V_{ds} during its blocking phase.
Tip: The lowest size of the transformer is achieved if the converter works at the border between continuous and discontinuous mode for V_{in_min} .
Tip: The highest voltage V_{ds} occurs when V_{in}=V_{in_max} .

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Flyback Converter

V_{in_min} = 400.0V	V_{in_max} = 400.0V	V_{in} = 400.0V
V_{out} = 24.0V	I_{out} = 4.0A	f = 50.0kHz
L = 4.05mH	N_1/N_2 = 5.0