

Projet 12 - ALIM2577 / Alimentation à découpage +15V avec le LM2577T-ADJ.

Projet : IUT6

Info : [DIV644]

Révision : 1 du 28 juin 2013

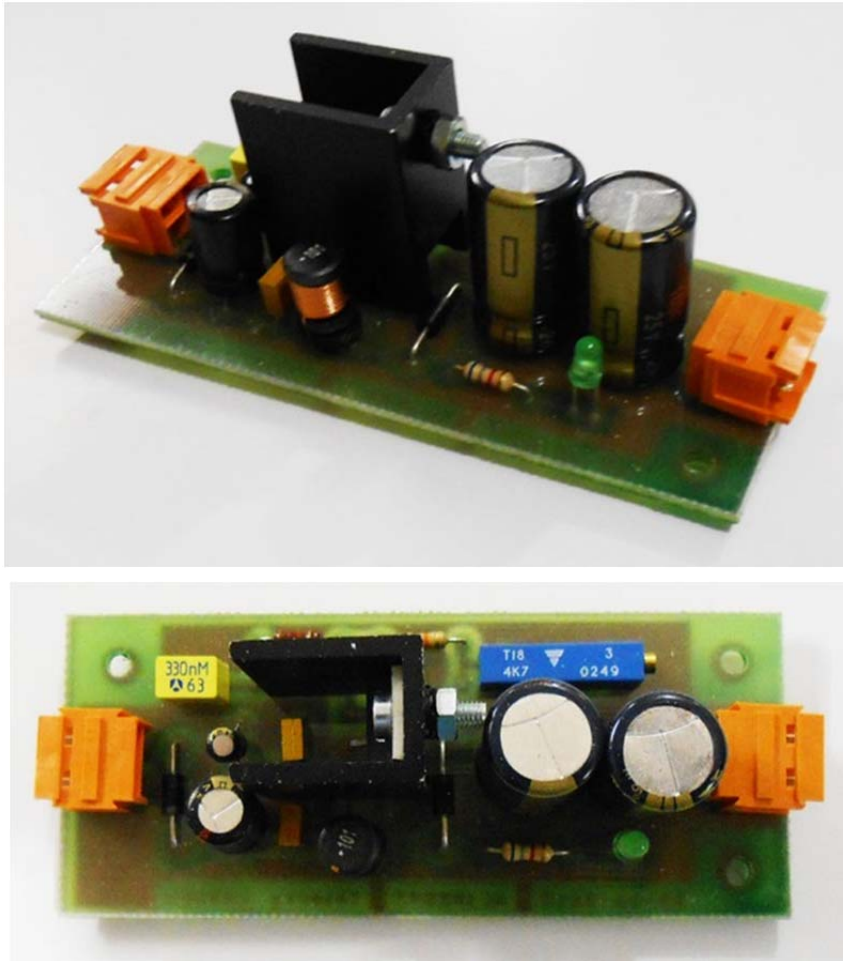


Figure 12.1. Vue de carte électronique (images-maquettes\ALIM2577-12 & 22.jpg).

12.1 Liste des documents

- Désignation des composants
- Prix du montage.
- Schéma électronique.
- Circuit imprimé coté cuivre.
- Circuit imprimé coté composants.
- Implantation des composants.
- Documentations des composants.

12.2 Désignation des composants

Tableau 12.1. Liste de composants (projets-iut6.xls / ALIM2577).

N°	Quantité	Référence	Désignation	PCB Footprint
1	1	B1	CATHODE	EMBASE
2	1	B2	ANODE	EMBASE
3	1	B3	DRAIN	EMBASE
4	1	B4	SOURCE	EMBASE
5	1	B5	+15V	EMBASE
6	1	B6	GND	EMBASE

12.3 Composants annexes

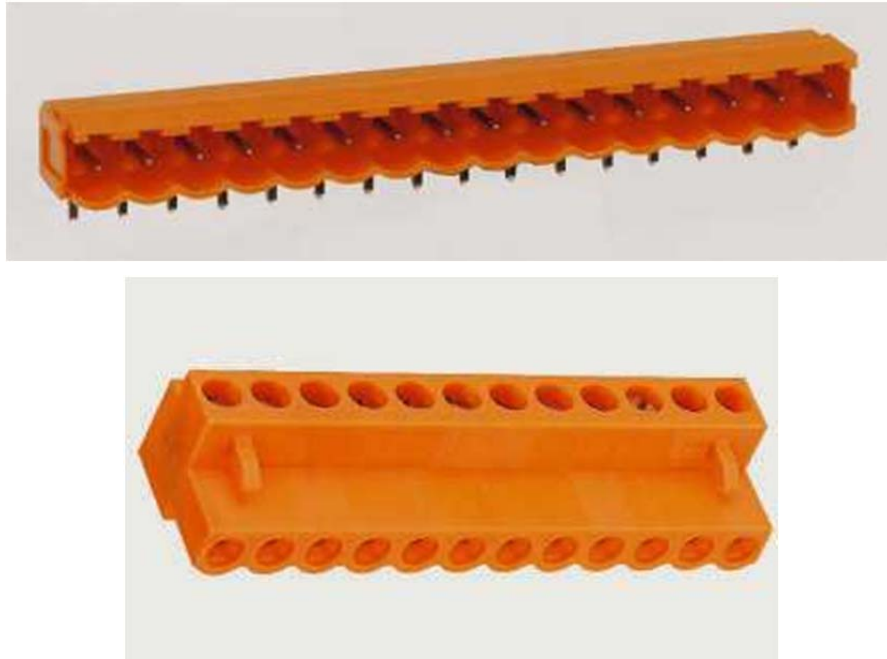
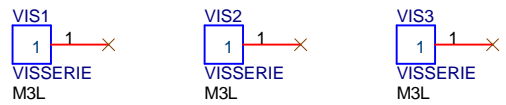
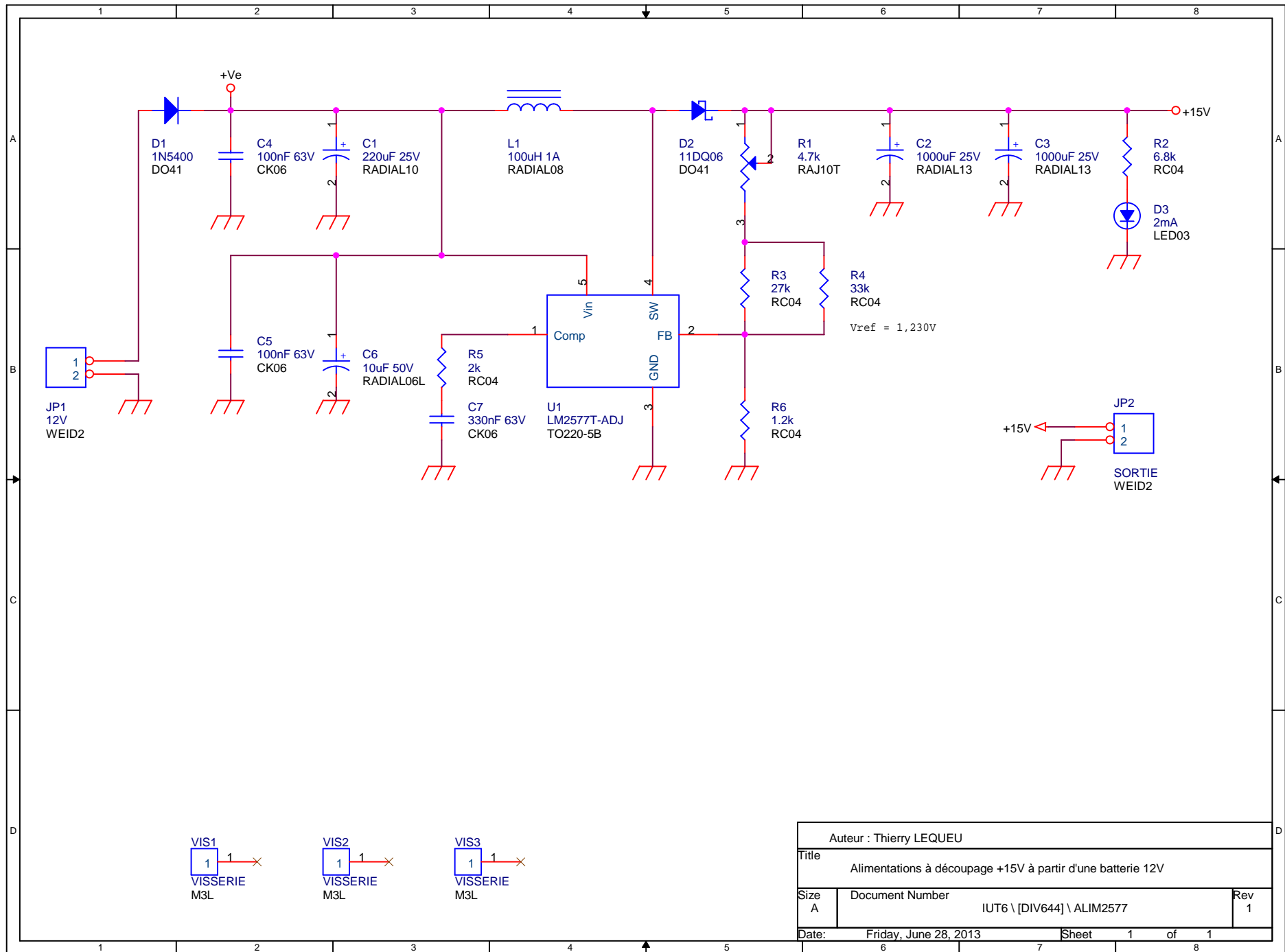
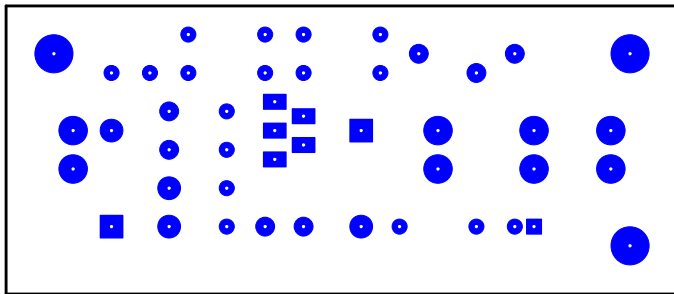


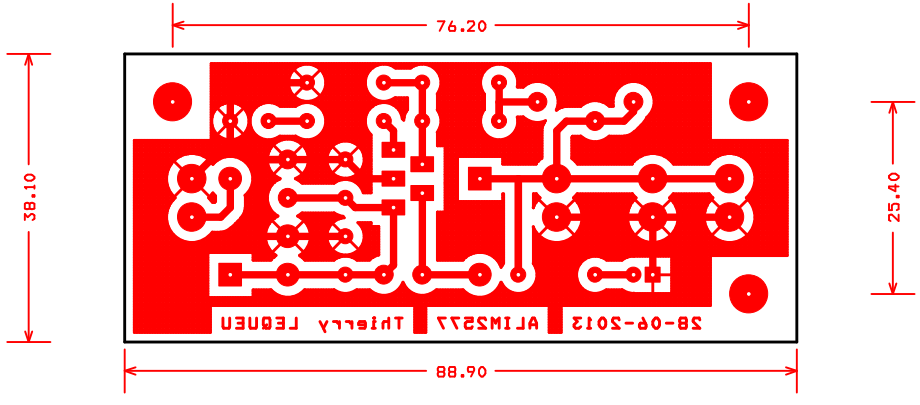
Figure 12.2. Connecteurs débrochable Weidmüller (Weid-m.jpg & Weid-f.jpg).



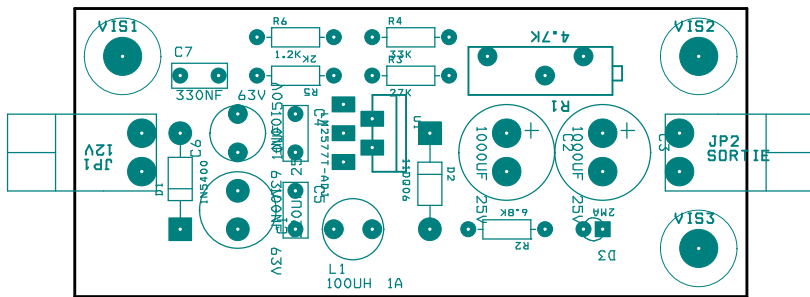
Auteur : Thierry LEQUEU		
Title Alimentations à découpage +15V à partir d'une batterie 12V		
Size A	Document Number IUT6 \ [DIV644] \ ALIM2577	Rev 1
Date:	Friday, June 28, 2013	Sheet 1 of 1



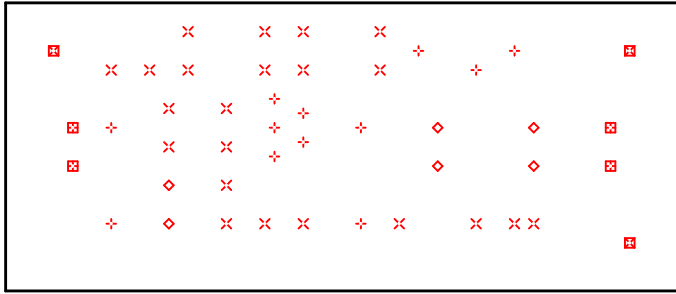
Face TOP



Face BOT



FACE AST



FACE DRD

DRILL CHART				
SYM	DIAM	TOL	QTY	NOTE
x	0.787 mm		22	
+	0.991 mm		12	
◇	1.194 mm		6	
⊠	1.499 mm		3	
⊞	1.499 mm		4	
TOTAL			47	

LM1577/LM2577 Series SIMPLE SWITCHER® Step-Up Voltage Regulator

General Description

The LM1577/LM2577 are monolithic integrated circuits that provide all of the power and control functions for step-up (boost), flyback, and forward converter switching regulators. The device is available in three different output voltage versions: 12V, 15V, and adjustable.

Requiring a minimum number of external components, these regulators are cost effective, and simple to use. Listed in this data sheet are a family of standard inductors and flyback transformers designed to work with these switching regulators.

Included on the chip is a 3.0A NPN switch and its associated protection circuitry, consisting of current and thermal limiting, and undervoltage lockout. Other features include a 52 kHz fixed-frequency oscillator that requires no external components, a soft start mode to reduce in-rush current during start-up, and current mode control for improved rejection of input voltage and output load transients.

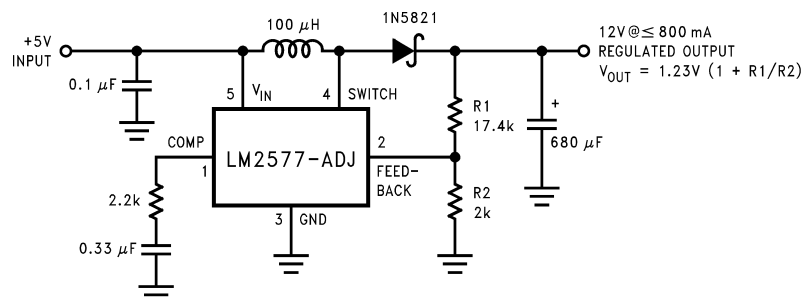
Features

- Requires few external components
- NPN output switches 3.0A, can stand off 65V
- Wide input voltage range: 3.5V to 40V
- Current-mode operation for improved transient response, line regulation, and current limit
- 52 kHz internal oscillator
- Soft-start function reduces in-rush current during start-up
- Output switch protected by current limit, under-voltage lockout, and thermal shutdown

Typical Applications

- Simple boost regulator
- Flyback and forward regulators
- Multiple-output regulator

Typical Application



DS011468-1

Note: Pin numbers shown are for TO-220 (T) package.

Ordering Information

Temperature Range	Package Type	Output Voltage			NSC Package Drawing	Package
		12V	15V	ADJ		
-40°C ≤ T _A ≤ +125°C	24-Pin Surface Mount	LM2577M-12	LM2577M-15	LM2577M-ADJ	M24B	SO
	16-Pin Molded DIP	LM2577N-12	LM2577N-15	LM2577N-ADJ	N16A	N
	5-Lead Surface Mount	LM2577S-12	LM2577S-15	LM2577S-ADJ	TS5B	TO-263
	5-Straight Leads	LM2577T-12	LM2577T-15	LM2577T-ADJ	T05A	TO-220
	5-Bent Staggered Leads	LM2577T-12 Flow LB03	LM2577T-15 Flow LB03	LM2577T-ADJ Flow LB03	T05D	TO-220
-55°C ≤ T _A ≤ +150°C	4-Pin TO-3	LM1577K-12/883	LM1577K-15/883	LM1577K-ADJ/883	K04A	TO-3

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