

Conferir lógica
 Sensor de temperatura (i2c)
 Alimentação para cooler (PWM?)
 Melhorar apresentação / Deixar diagramas mais "didáticos"
 (colocar descrições, instruções de ajuste, nomes, organização dos blocos etc)
 Definir conectores e fixações (projeto mecânico)
 Definir dissipador / cooler (projeto térmico)

Author:
 Hildo Guillard Junior
 Arthur Crisóstomo Prates
 License under GNU-GPL 3

Title Easy inverter project		
Size A4	Number	Revision
Date: 26/06/2017	Sheet of	
File: C:\Users\...\OnePhaseMain.SchDoc	Drawn By:	

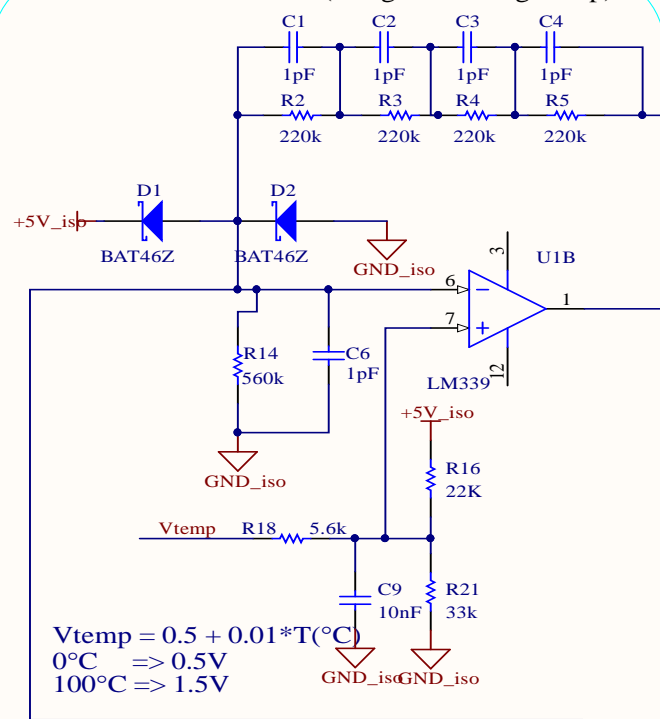
1

2

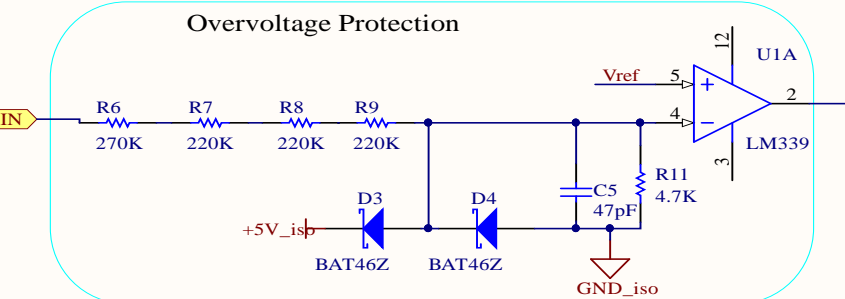
3

4

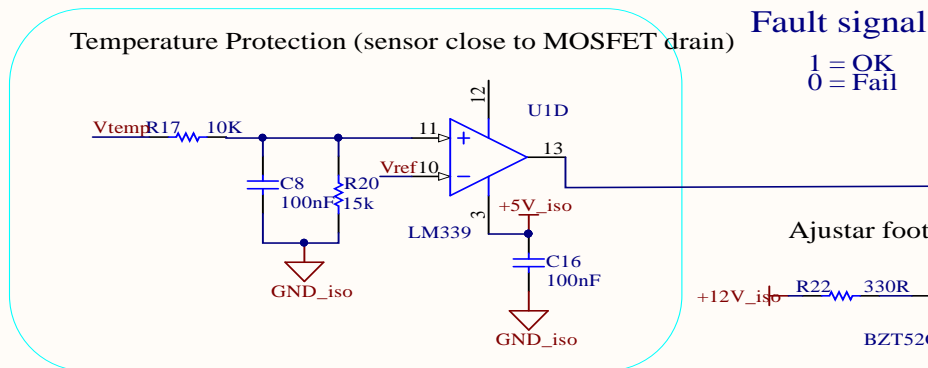
Current Protection (using Vds voltage drop)



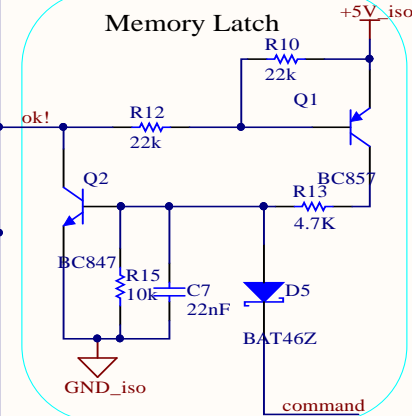
Overvoltage Protection



Temperature Protection (sensor close to MOSFET drain)



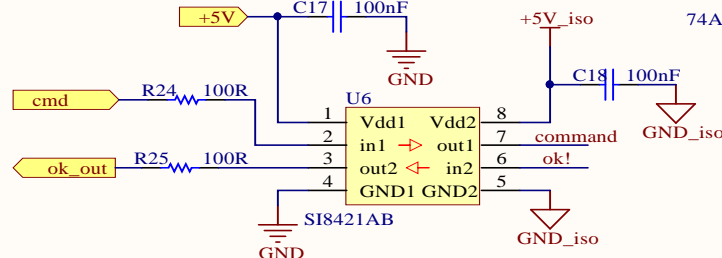
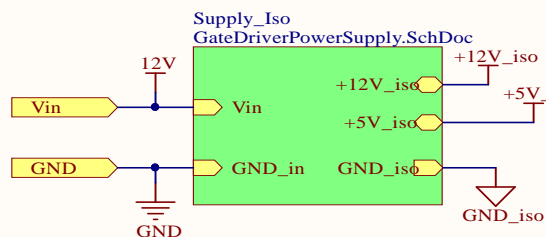
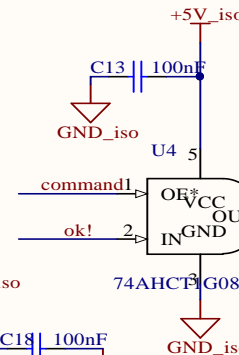
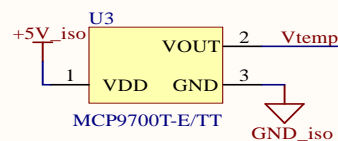
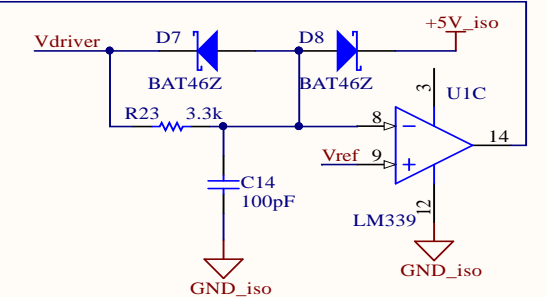
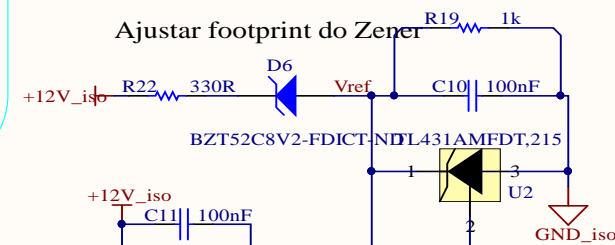
Memory Latch



Fault signal

1 = OK
 0 = Fail

Ajustar footprint do Zener



Easy inverter project

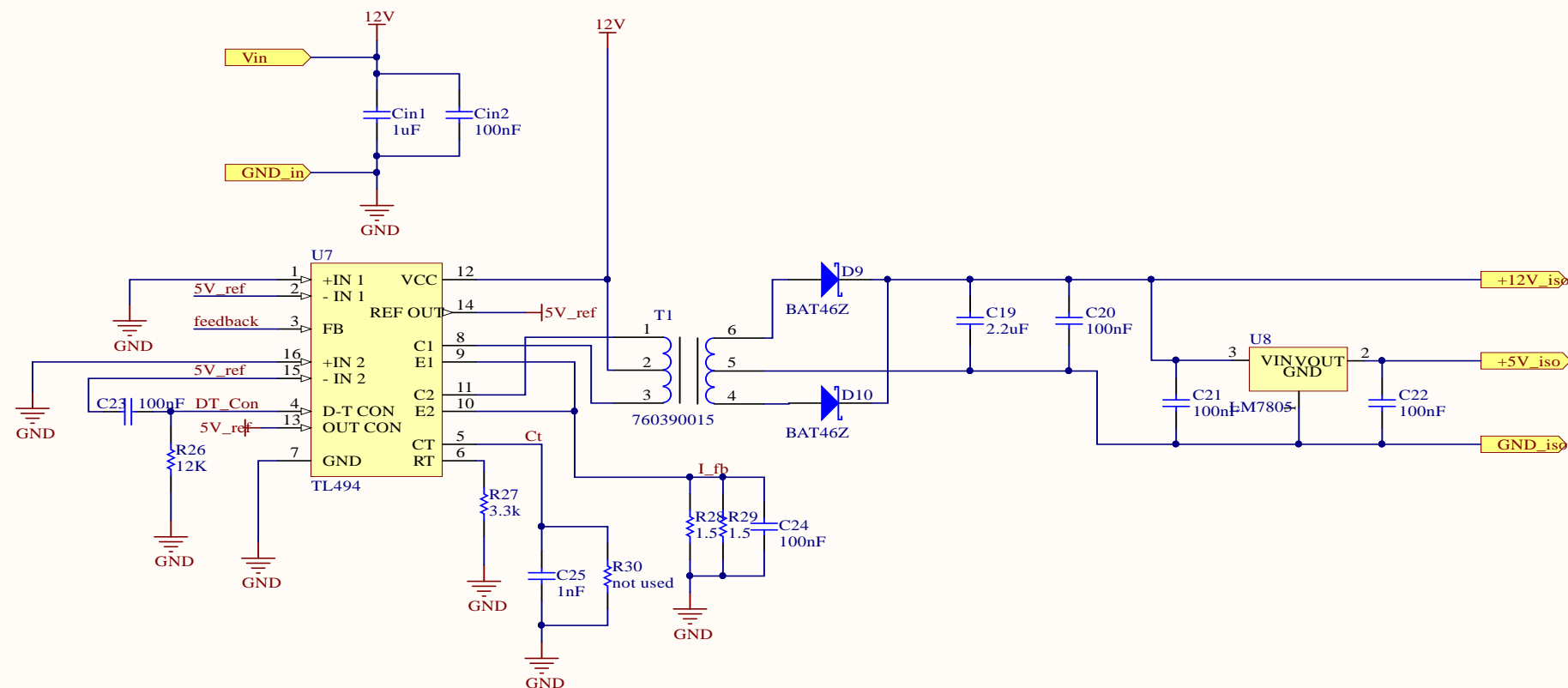
Author:			
Size	Number	Fellipe Saldanha Garcia	Revision
A4		License under GNU-GPL 3.0	
Date:	26/06/2017	Sheet of	
File:	C:\Users\...\DriverAndProtection.SchDoc	Drawn By:	

1

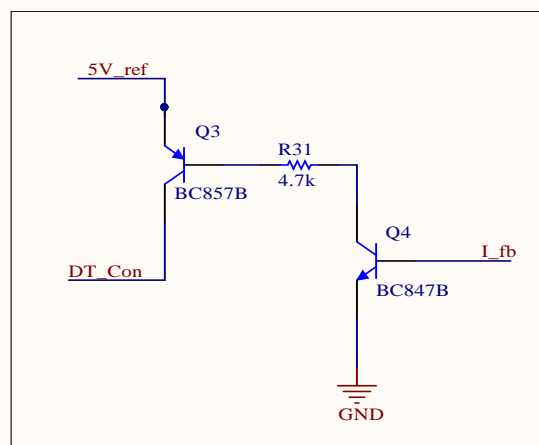
2

3

4



Current limit circuit



Switching frequency: 300kHz
 Max. duty cycle: 45%
 Input voltage: 8V
 Output voltage: 12.5V

SMPS Controller:
 TL494IDR
 Alt. part: TL594CDR2G

Push-pull transformer:
 Wurth Electronics
 760390015

Author:
 Hildo Guillard Junior
 Joel Filipe Guerreiro
 Felipe Saldanha Garcia
 Arthur Crisóstomo Prates
 License under GNU-GPL 3.0

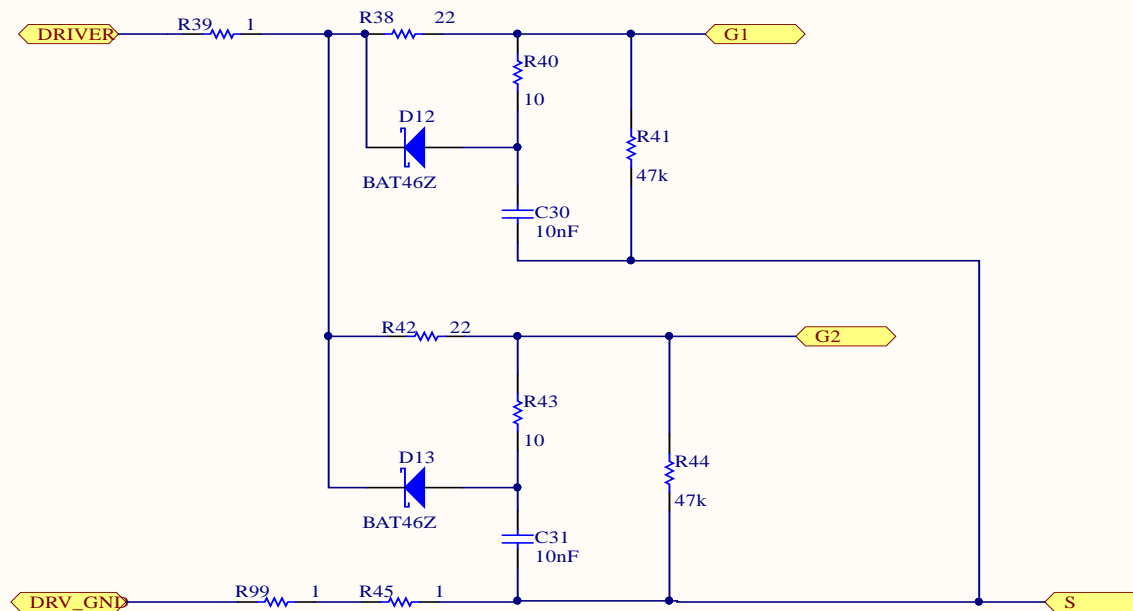
Title Easy inverter project		
Size A4	Number	Revision
Date: 26/06/2017	Sheet of	
File: C:\Users\...\GateDriverPowerSupply\GND By:		

1

2

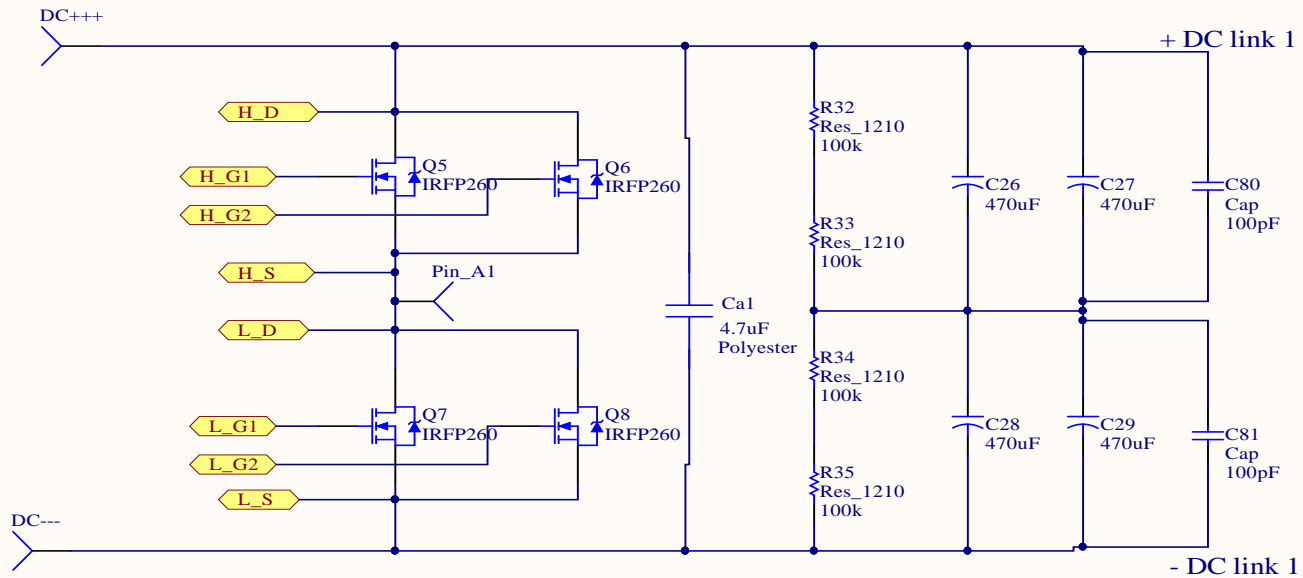
3

4



Author:
Hildo Guillard Junior
Joel Filipe Guerreiro
Fellipe Saldanha Garcia
Arthur Crisóstomo Prates
José Antenor Pomilio
License under GNU-GPL 3.0

Title Easy inverter project		
Size A4	Number	Revision
Date:	26/06/2017	Sheet of
File:	C:\Users\...\GateCircuit.SchDoc	Drawn By:



Author:
Hildo Guillard Junior
Joel Filipe Guerreiro
Felipe Saldanha Garcia
Arthur Crisóstomo Prates
José Antenor Pomilio
License under GNU-GPL 3.0

Title Easy inverter project		
Size A4	Number	Revision
Date: 26/06/2017	Sheet of	
File: C:\Users\...\OnePhase_MainPower_SchDocBy:		

Inverter 1ph
March 2017
Hildo G Jr

Author:
Hildo Guillard Junior
Joel Filipe Guerreiro
Fellipe Saldanha Garcia
Arthur Crisóstomo Prates
José Antenor Pomílio
License under GNU-GPL 3.0

Easy inverter project

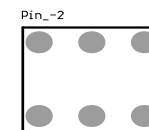
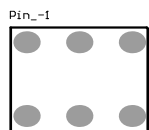
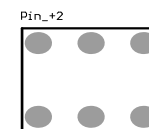
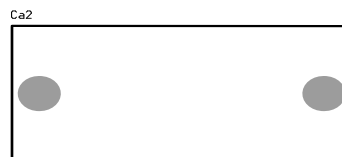
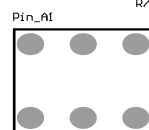
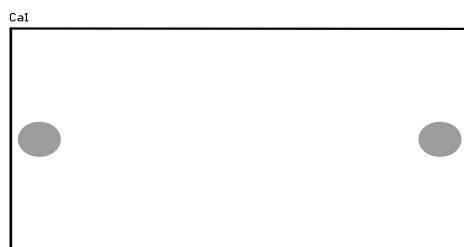
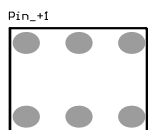
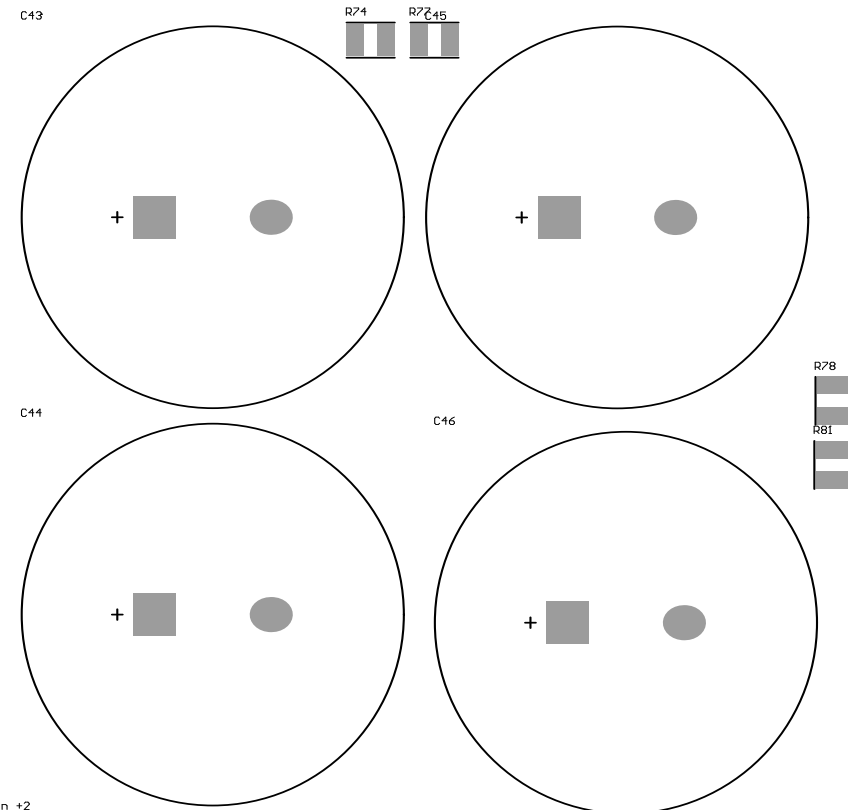
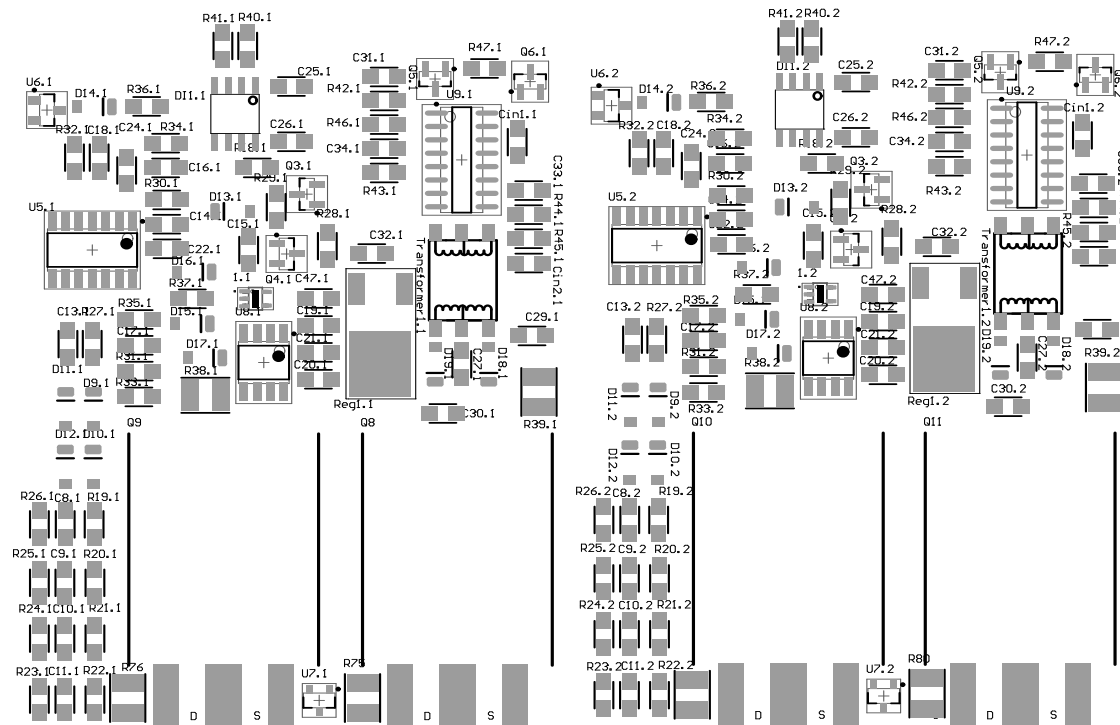
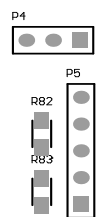
Inverter 1ph
March 2017
Hildo G Jr

Author:
Hildo Guillard Junior
Joel Filipe Guerreiro
Felipe Saldanha Garcia
Arthur Crisostomo Prates
José Antenor Pomilio
License under GNU-GPL 3.0

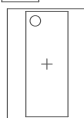
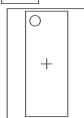
Easy inverter project



F. S. Garcia, J. F. Guerreiro,
H. G. Junior, A. C. Prates

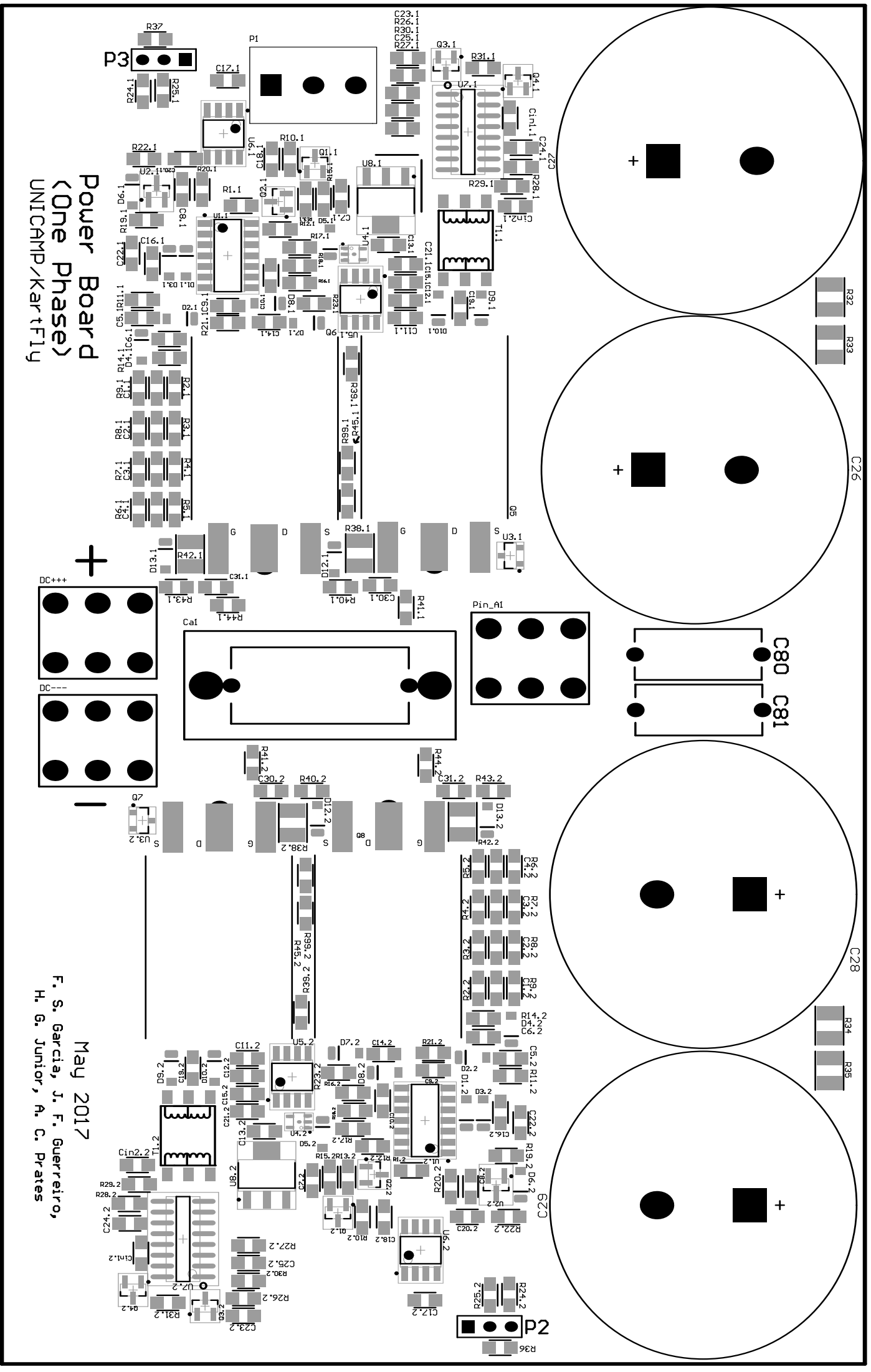


Author:
Hildo Guillard Junior
Joel Filipe Guerreiro
Fellipe Saldanha Garcia
Arthur Crisóstomo Prates
José Antenor Pomilio
License under GNU-GPL 3.0



Author:
Hildo Guillard Junior
Joel Filipe Guerreiro
Fellipe Saldanha Garcia
Arthur Crisóstomo Prates
José Antenor Pomilio
License under GNU-GPL 3.0

Easy inverter project



Power Board
(One Phase)
UNICAMP/Karffly

May 2017
F. S. Garcia, J. F. Guerreiro,
H. G. Junior, A. C. Prates

