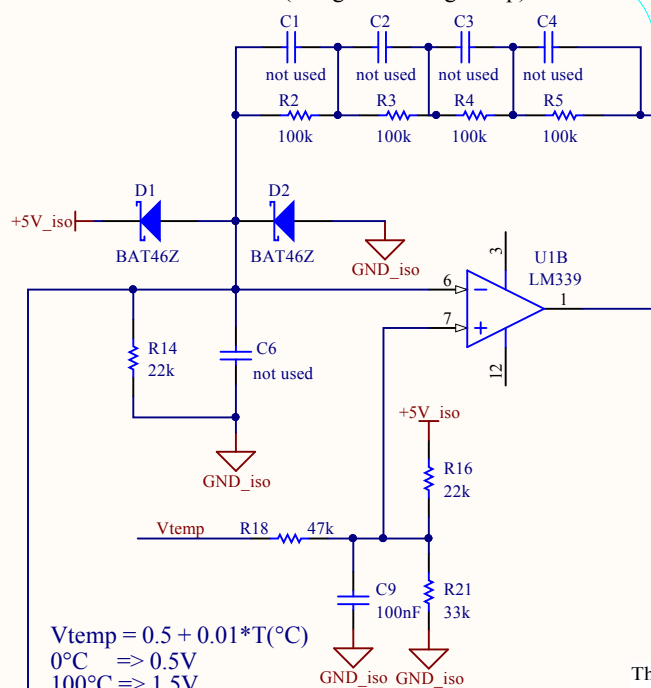


1

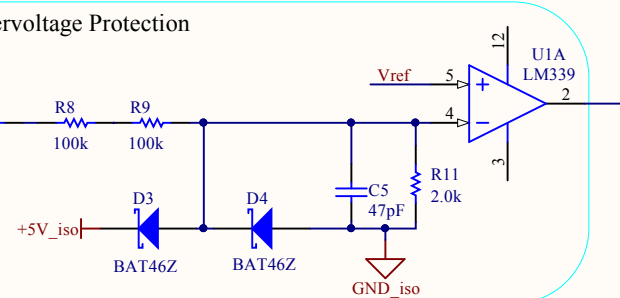
2

3

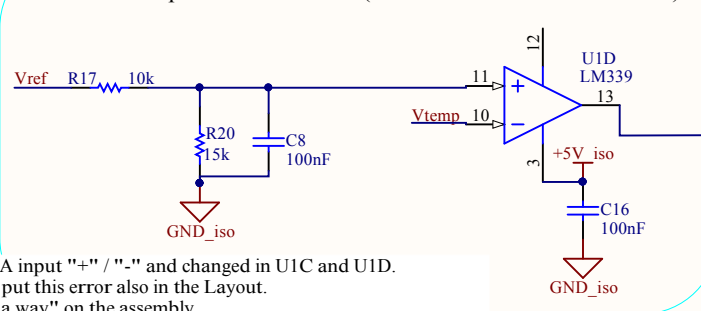
4

Current Protection (using V_{ds} voltage drop)

Overvoltage Protection



Temperature Protection (sensor close to MOSFET drain)

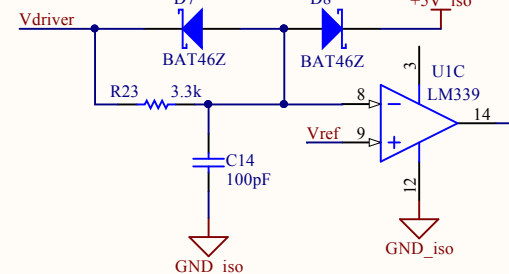
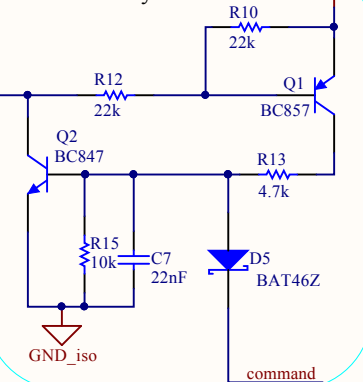


The OA input "+" / "-" and changed in U1C and U1D.
Felipe put this error also in the Layout.
"Give a way" on the assembly.

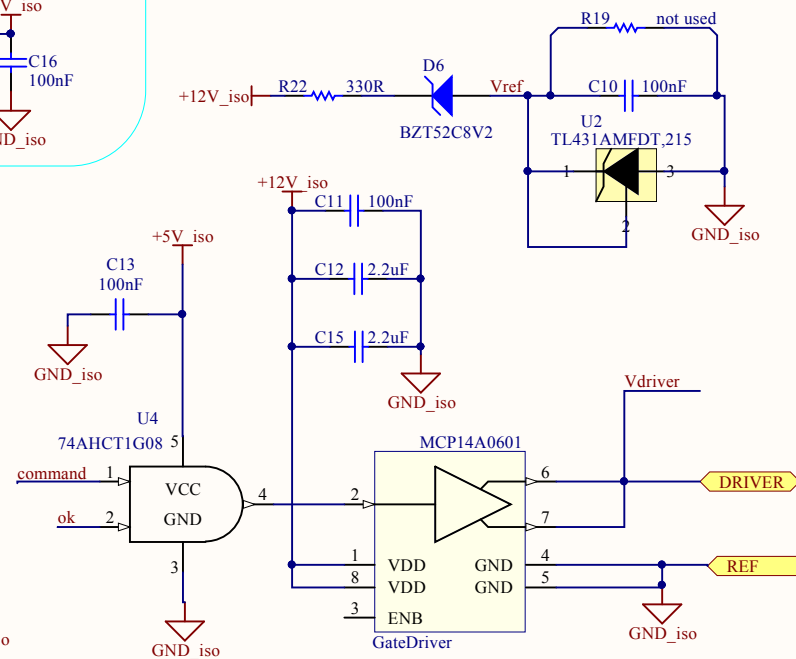
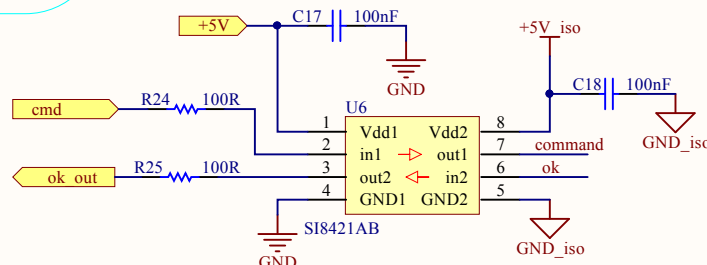
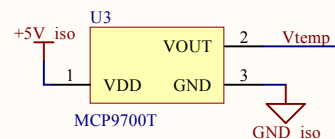
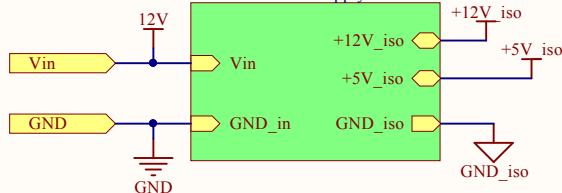
Fault signal


1 = OK
0 = Fail

Memory Latch



Supply_Iso
GateDriverPowerSupply.SchDoc



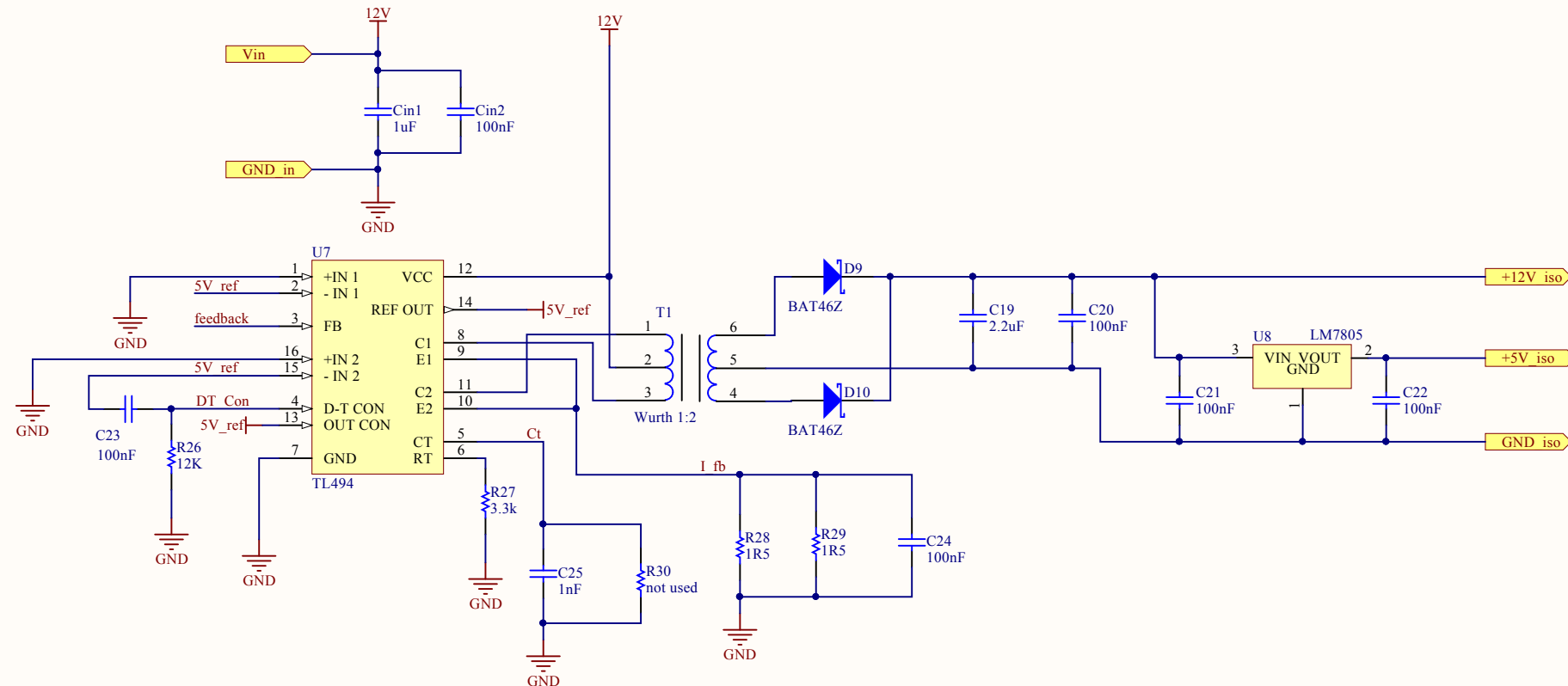
Title	OnePhase.PrjPcb Drive and protections	UNICAMP / LCEE University of Campinas - Brazil Power Conditioning Laboratory Licensed by GNU GPL 3.0 * 	
Author	Fellipe		
Revisor	Hildo Guillard Junior		
Revision:	Sheet* of *		
File:	DriverAndProtection.SchDoc	Size:	A4

1

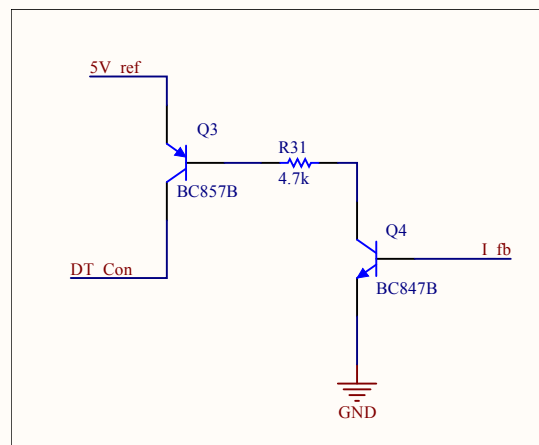
2

3

4




Current limit circuit

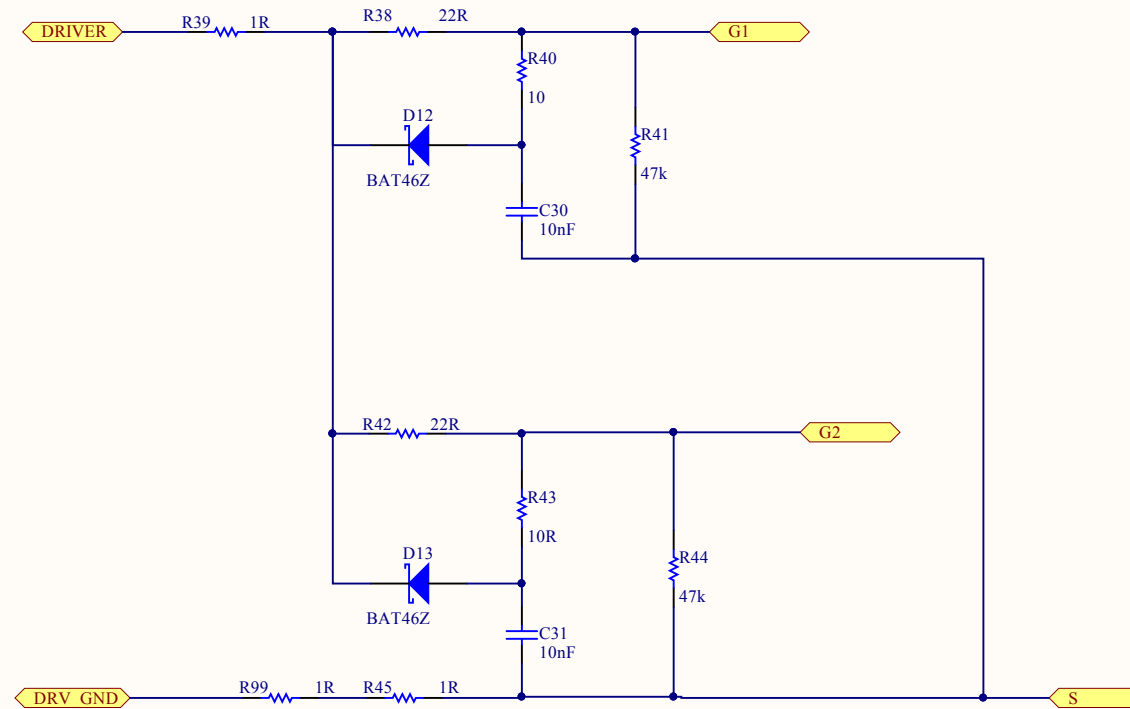



Switching frequency: 300kHz
Max. duty cycle: 45%
Input voltage: 8V
Output voltage: 12.5V

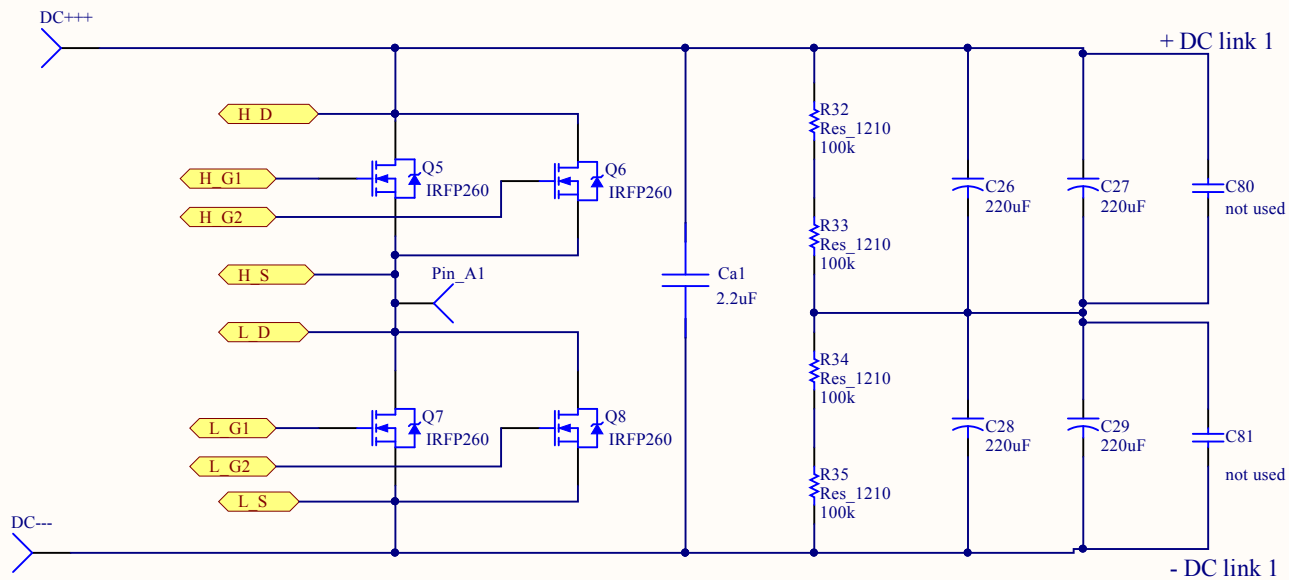
SMPS Controller:
TL494IDR
Alt. part: TL594CDR2G

Push-pull transformer:
Würth Electronics
760390015

Title OnePhase.PrjPcb Isolated power supply		UNICAMP / LCEE University of Campinas - Brazil Power Conditioning Laboratory Licensed by GNU GPL 3.0 *	
Author Fellipe / Arthur Revisor Hildo / Joel			
Revision:*	Sheet* of *	File: GateDriverPowerSupply.SchDoc	Size: A4



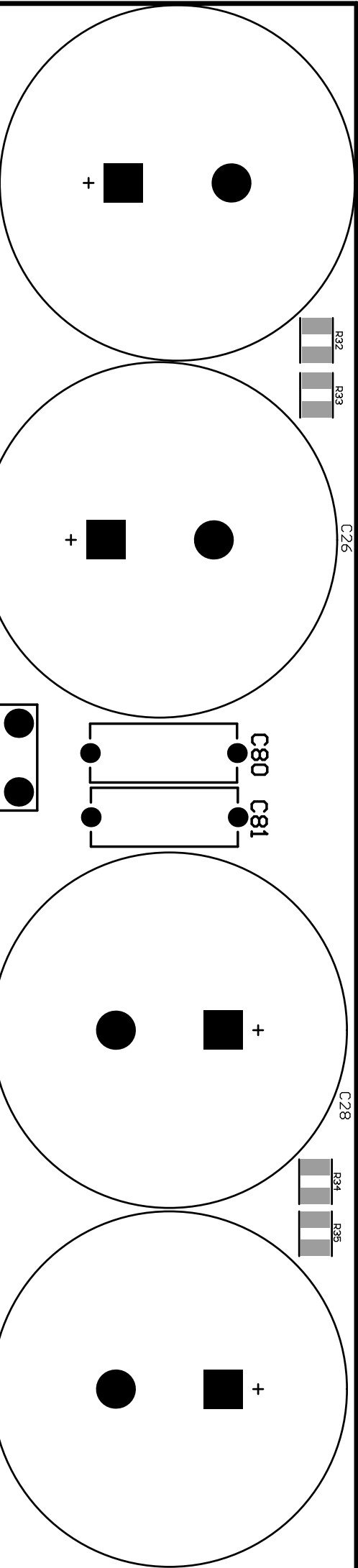
Title	OnePhase.PrjPcb Gate drive circuit	UNICAMP / LCEE University of Campinas - Brazil Power Conditioning Laboratory Licensed by GNU GPL 3.0	
Author	Hildo Guillard Junior		
Revisor*	*	File: GateCircuit.SchDoc	Size: A4



Title OnePhase.PrjPcb One phase test		UNICAMP / LCEE University of Campinas - Brazil	
Author Hildo Guillard Junior		Power Conditioning Laboratory	
Revisor Arthur		Licensed by GNU GPL 3.0	
Revision:*		File: OnePhase_MainPower.SchDoc Size: A4	
Sheet* of *			





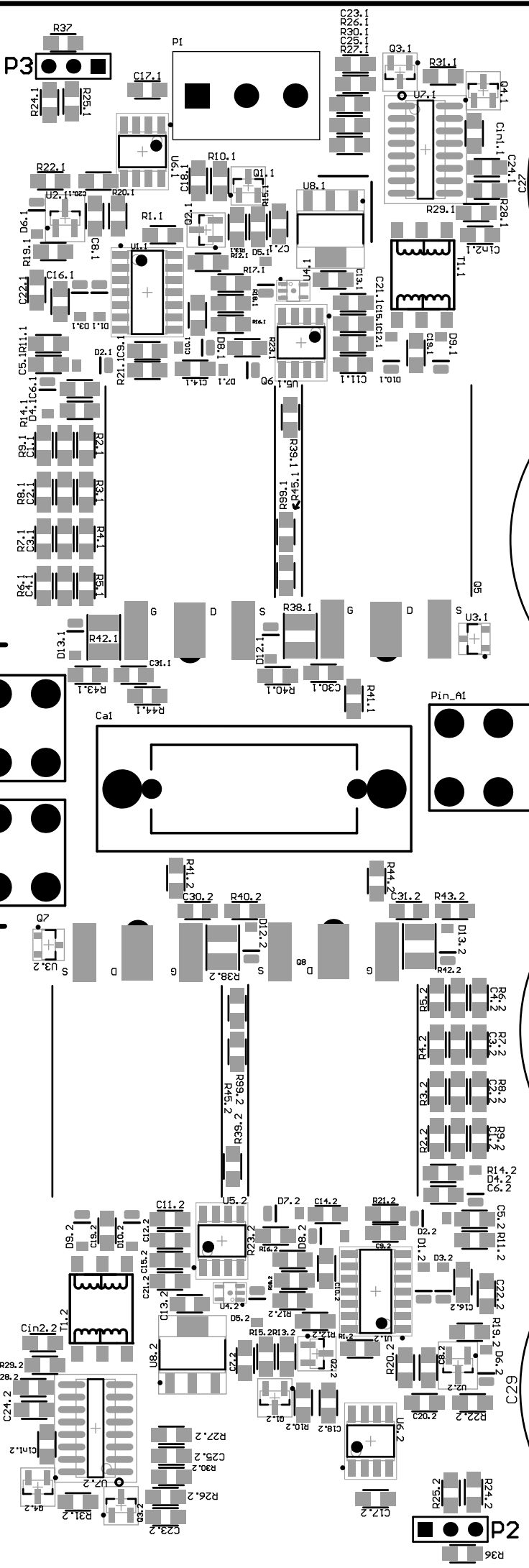


R32
R33

C26

C28

R34
R35



Power Board
(One Phase)
UNICAMP/Karfly

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

