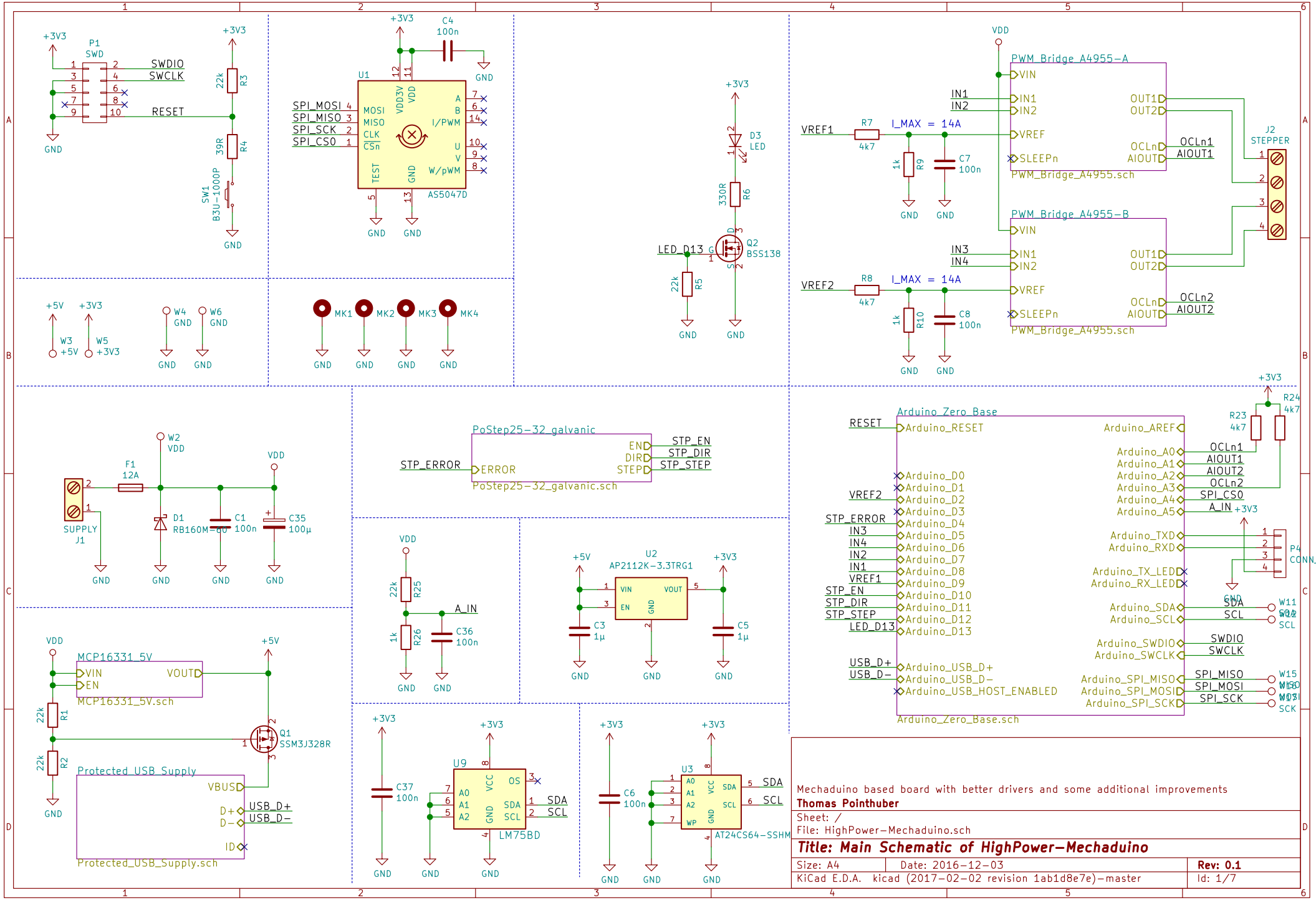
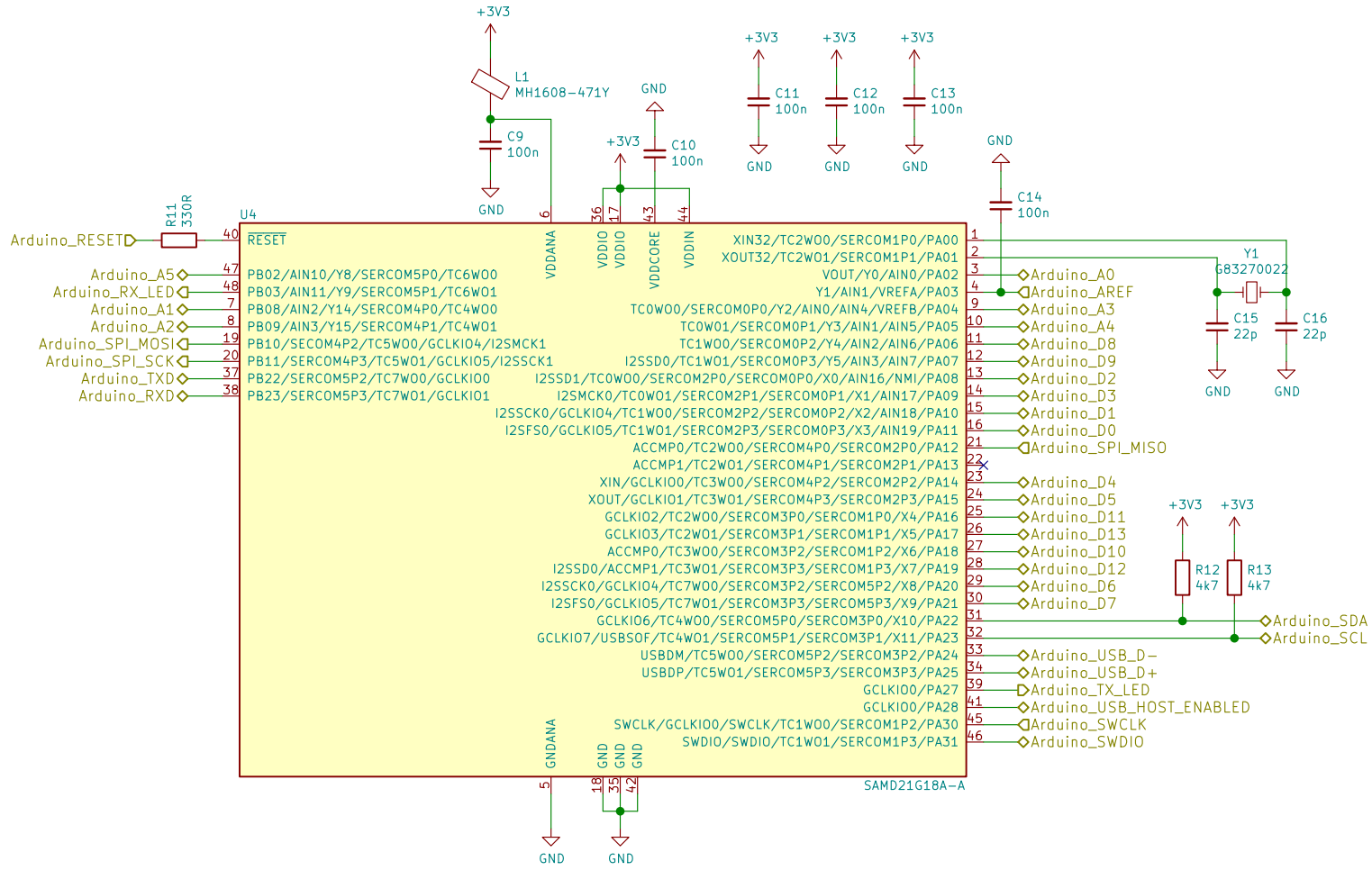

P1
SWD
SWDIO
SWCLK
RESET
R3
22k
R4
39R
SW1
B3U-1000P
U1
SPI_MOSI
SPI_MISO
SPI_SCK
SPI_CS0
AS5047D
C4
100n
D3
LED
R6
330R
Q2
BSS138
LED_D13
R5
22k
W3
W5
W4
W6
MK1
MK2
MK3
MK4
PWM_Bridge_A4955-A
PWM_Bridge_A4955-B
PWM_Bridge_A4955.sch
VREF1
VREF2
R7
R8
4k7
I_MAX = 14A
R9
R10
1k
C7
C8
100n
IN1
IN2
IN3
IN4
OUT1
OUT2
OCLn
AIOUT
OCLn1
AIOUT1
OCLn2
AIOUT2
SLEEPn
J2
STEPPER
F1
12A
SUPPLY
J1
D1
RB160M-60
C1
100n
C35
100µ
PoStep25-32_galvanic
PoStep25-32_galvanic.sch
STP_ERROR
STP_EN
STP_DIR
STP_STEP
R25
22k
R26
1k
A_IN
C36
100n
U2
AP2112K-3.3TRG1
C3
1µ
C5
1µ
MCP16331_5V
MCP16331_5V.sch
R1
R2
22k
Q1
SSM3J328R
Protected_USB_Supply
Protected_USB_Supply.sch
VBUS
USB_D+
USB_D-
ID
U9
LM75BD
C37
100n
U3
AT24CS64-SSHM
C6
100n
SDA
SCL
Arduino_Zero_Base
Arduino_Zero_Base.sch
Arduino_RESET
Arduino_AREF
Arduino_D0
Arduino_D1
Arduino_D2
Arduino_D3
Arduino_D4
Arduino_D5
Arduino_D6
Arduino_D7
Arduino_D8
Arduino_D9
Arduino_D10
Arduino_D11
Arduino_D12
Arduino_D13
Arduino_USB_D+
Arduino_USB_D-
Arduino_USB_HOST_ENABLED
Arduino_A0
Arduino_A1
Arduino_A2
Arduino_A3
Arduino_A4
Arduino_A5
Arduino_TXD
Arduino_RXD
Arduino_TX_LED
Arduino_RX_LED
Arduino_SDA
Arduino_SCL
Arduino_SWDIO
Arduino_SWCLK
Arduino_SPI_MISO
Arduino_SPI_MOSI
Arduino_SPI_SCK
R23
R24
4k7
P4
CONN_01X04
W11
W12
W15
W16
W17
Mechaduino based board with better drivers and some additional improvements
Thomas Pointhuber
Sheet: /
File: HighPower-Mechaduino.sch
Title: Main Schematic of HighPower-Mechaduino
Size: A4
Date: 2016-12-03
Rev: 0.1
KiCad E.D.A. kicad (2017-02-02 revision 1ab1d8e7e)-master
Id: 1/7



Minimal Schematic to create an Arduino Zero compatible board

Thomas Pointhuber

Sheet: /Arduino_Zero_Base/
File: Arduino_Zero_Base.sch

Title: Arduino Zero base schematic

Size: A4	Date: 2016-12-03	**Rev: 0.1**
KiCad E.D.A. kicad (2017-02-02 revision 1ab1d8e7e)-master		Id: 2/7

CALCULATIONS

ISET

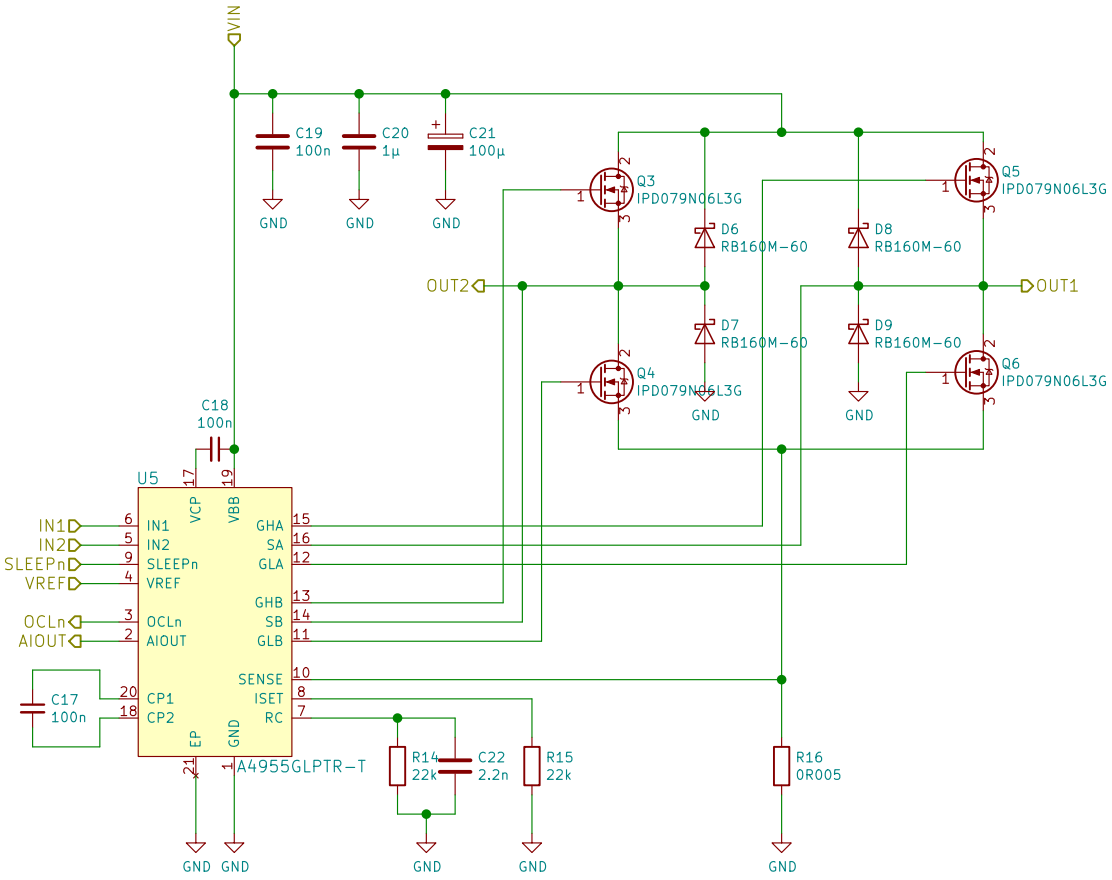
I_GATE_HS = 42.8mA
I_GATE_LS = 80.7mA

RC

T_OFF = 49.4µs
T_BLANK = 6.7µs

Current Limiter

I_MAX = 10A
VREF_MAX = 0.5V



Thomas Pointhuber	
Sheet: /PWM_Bridge_A4955-A/	
File: PWM_Bridge_A4955.sch	
Title: A4955 PWM Bridge	
Size: A4	Date: 2016-12-03
KiCad E.D.A. kicad (2017-02-02 revision 1ab1d8e7e)-master	Id: 3/7

Rev: 0.1

CALCULATIONS

ISET

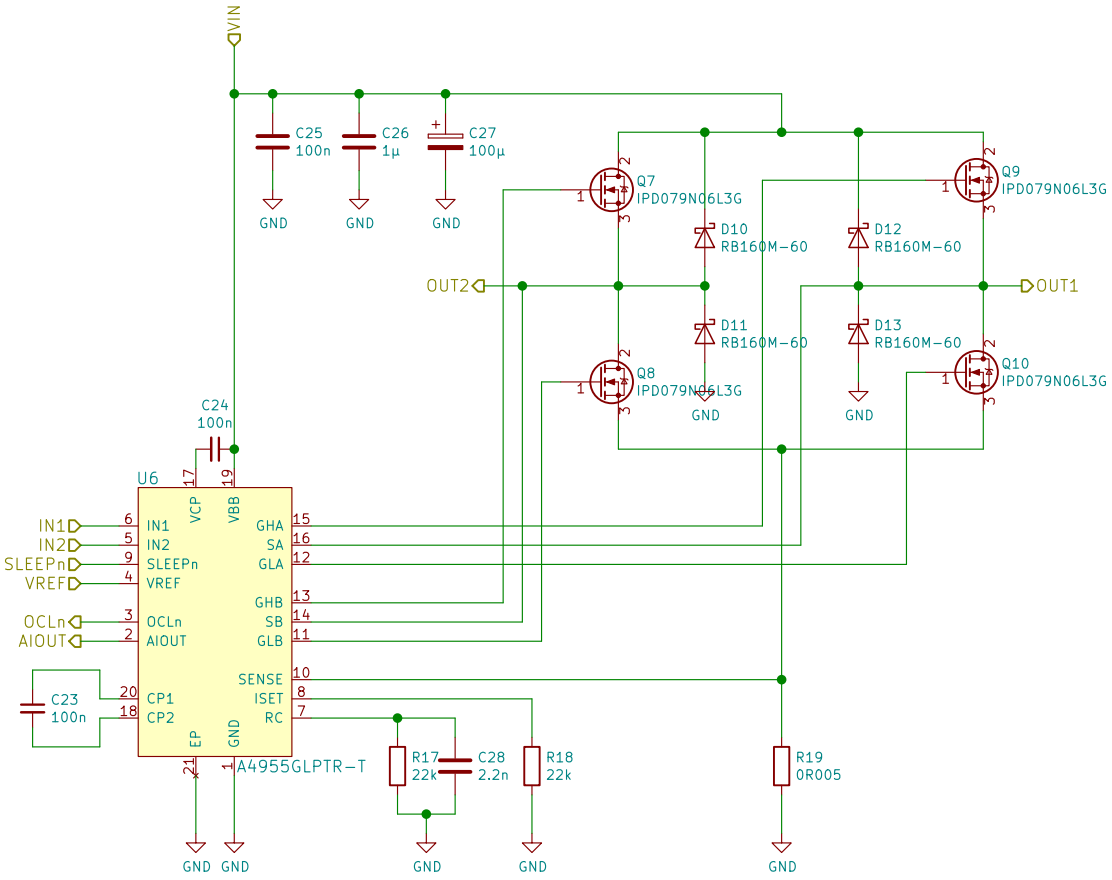
I_GATE_HS = 42.8mA
I_GATE_LS = 80.7mA

RC

T_OFF = 49.4µs
T_BLANK = 6.7µs

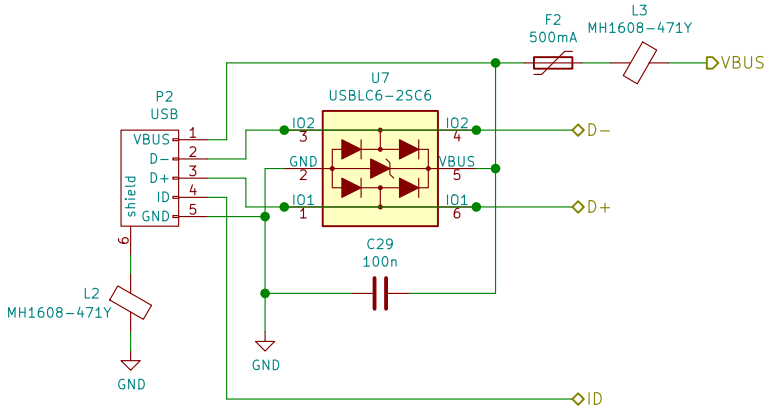
Current Limiter

I_MAX = 10A
VREF_MAX = 0.5V



Thomas Pointhuber	
Sheet: /PWM_Bridge_A4955-B/	
File: PWM_Bridge_A4955.sch	
Title: A4955 PWM Bridge	
Size: A4	Date: 2016-12-03
KiCad E.D.A. kicad (2017-02-02 revision 1ab1d8e7e)-master	Id: 4/7

Rev: 0.1



Thomas Pointhuber

Sheet: /Protected_USB_Supply/
File: Protected_USB_Supply.sch

Title: USB input including protection circuit

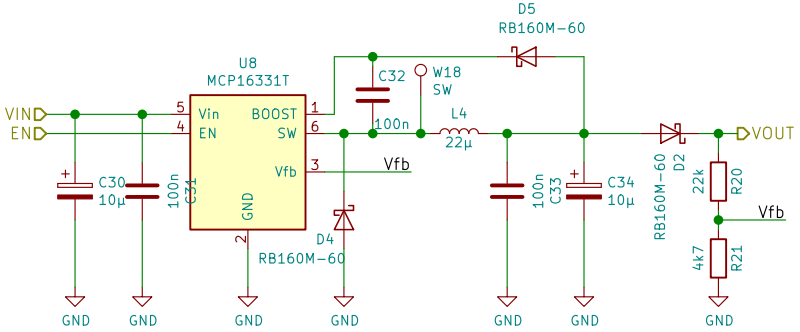
Size: A4	Date: 2016-12-03	**Rev: 0.1**
KiCad E.D.A. kicad (2017-02-02 revision 1ab1d8e7e)-master		Id: 5/7

CALCULATIONS

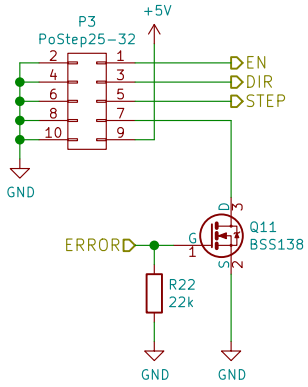
OUTPUT VOLTAGE

R_TOLERANCE = 5%
U_OUT_MIN = 4.18V
U_OUT_MAX = 4.93V

R_TOLERANCE = 1%
U_OUT_MIN = 4.47V
U_OUT_MAX = 4.62V



Thomas Pointhuber		
Sheet: /MCP16331_5V/ File: MCP16331_5V.sch		
Title: Step Down with input range of 10V–50V		
Size: A4	Date: 2016-12-03	**Rev: 0.1**
KiCad E.D.A. kicad (2017-02-02 revision 1ab1d8e7e)-master		Id: 6/7



Thomas Pointhuber		
Sheet: /PoStep25-32_galvanic/		
File: PoStep25-32_galvanic.sch		
Title: ProStep25-32 input including optional galvanic separation		
Size: A4	Date: 2016-12-03	**Rev: 0.1**
KiCad E.D.A. kicad (2017-02-02 revision 1ab1d8e7e)-master		Id: 7/7