Alternative Isolated Supply Parts:
CUI: PDQ30-Q24-S5-D DigiKey: 102-3892-ND 5V @ 6 Amps $34.98
GE: EHHD015A0A DigiKey: 555-1266-ND 5V @ 15 Amps $29.77
GE: SHHD003A0A DigiKey 555-1312-ND 5V @ 3Amps $18.73

Power Input
Isolated +5V @ 6 Amps
PDQ30-Q24-S5-D
U1
P1
+24V
GND2
GND1
+12V
24V_Rtr
D1
C3
220uF
Vin+
Vin-
On_Off
Vout+
Trim
Vout-
GND
U2 PowerBoost 1000
5Vout
GND
LowBattery
GND
EN
Vsh
LiPo
USB5V
C9
10uF
Sheet: IDEAL_DIODE_2
ANODE CATHODE
File: IDEAL_DIODE.sch
C5
10uF
Sheet: IDEAL_DIODE_1
ANODE CATHODE
File: IDEAL_DIODE.sch
R1
30K
R2
1.0K
Supply_monitor
R4
510
D3
LED
C23
0.1uF
C12
0.1uF
U4 MAX13432EESD
Vlogic
RO
RE
DI
DE
VCC
A
B
Y
Z
GND
GND
RJ12
J1
SHIELD_1
SHIELD_2
R13
51
R14
51
Note: Messed up footprint for Q1 in SOT23 package
Pin 1 should be Gate
Pin 2 should be Source
Pin 3 should be Drain
Q_PMOS_DGS
Q1
en_level_shift
R7
10K
R5
10K
enable_ls
+3.3V
U7 LT1129CST-3.3
TO_SOT_Packages_SMD:SOT-223
VIN
OUT
GND
C24
10uF
+3.3VA
C25
10uF
C22
0.1uF
SPI INTERFACE
SCLK,MISO, MOSI, RESET
4 – CHIP SELECTS
OR 8 GPIO
OR 4 INCREMENTAL ENCODERS
R8
10K
R6
1.0K
enable_battery
C8
0.1uF
C10
0.1uF
ADAFRUIT_TXB0104
U3
Vcca
Vccy
A1
A2
A3
A4
Y1
Y2
Y3
Y4
EN
Rpi_mosi
Rpi_miso
Rpi_sclk
Rpi_ss
en_level_shift
BI-DIRECTIONAL LOGIC
LEVEL SHIFTER
C14
0.1uF
C16
0.1uF
ADAFRUIT_TXB0104
U5
slush_inta
slush_intb
rpi_inta
rpi_intb
en_level_shift
C17
0.1uF
C11
0.1uF
U6
PSOC_5LP
SDA_1
SCL_1
Rpi_mosi
Rpi_miso
Rpi_sclk
Rpi_ss
enable_battery
enable_ls
slush_inta
slush_intb
rpi_inta
rpi_intb
cs_1a
cs_1b
cs_1c
INT_1
pwm_a
pwm_b
INT_2
P2.0
P2.1
P2.2
P2.3
P2.4
P2.5
P2.6
P2.7
P12.7
P12.6
P12.5
P12.4
P12.3
P12.2
P12.1
P12.0
P1.0
P1.1
P1.2
P1.3
P1.4
P1.5
P1.6
P1.7
VDD
GND
RST
P0.7
P0.6
P0.5
P0.4
P0.3
P0.2
P0.1
P0.0
P15.5
P15.4
P15.3
P15.2
P15.1
P15.0
P3.7
P3.6
P3.5
P3.4
P3.3
P3.2
P3.1
P3.0
VCC
cs_a
cs_b
cs_c
delSig_bypass
sar_1_bypass
miso
mosi
sclk
sar_in4
sar_in3
sar_in2
sar_in1
delta_sig_in
Supply_monitor
SCL_2
C18
0.1uF
P10
CONN_02X07
miso
mosi
sclk
RESET
cs_a
cs_b
cs_c
C20
0.1uF
P11
CONN_02X07
MISO_1
MOSI_1
SCLK_1
RESET
cs_1a
cs_1b
cs_1c
C21
0.1uF
P12
CONN_02X05
SDA_1
SCL_1
INT_1
I2C INTERFACE
OR 3 GPIO
C19
0.1uF
P13
CONN_02X05
SDA_2
SCL_2
INT_2
I2C INTERFACE
OR 3 GPIO
C6
10uF
C7
0.1uF
RASPBERRY PI CONNECTION
P2
Raspberry_Pi_+_Conn
VPP_(5v)
VDD_(3.3v)
GND
ID_SC
ID_SD
GPIO2/I2C1_SDA
GPIO3/I2C1_SCL
GPIO14/UART_TXD
GPIO15/UART_RXD
GPIO10/SPI_MOSI
GPIO9/SPI_MISO
GPIO11/SPI_SCLK
GPIO8/SPI_CE0
GPIO7/SPI_CE1
GPIO4/GPCLK0
GPIO5
GPIO6
GPIO12
GPIO13
GPIO16
GPIO17
GPIO18
GPIO19
GPIO20
GPIO21
GPIO22
GPIO23
GPIO24
GPIO25
GPIO26
GPIO27
C1
10uF
C2
0.1uF
SLUSH ENGINE CONNECTOR
P3
C13
10uF
C15
0.1uF
C4
0.1uF
PWM Connectors
P4
P5
CONN_01X04
pwm_a
pwm_b
v24in1
Analog Inputs
P6
P7
P8
P9
sar_in1
sar_in2
sar_in3
sar_in4

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Date: 10/22/18
Rev: 2
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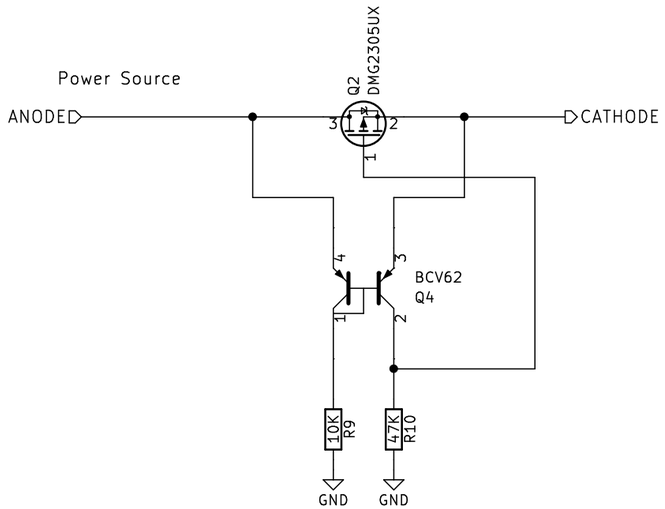
Id: 1/3



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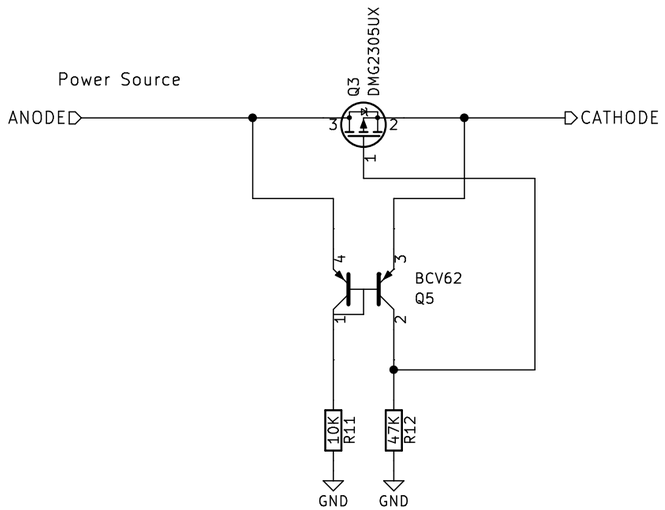

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