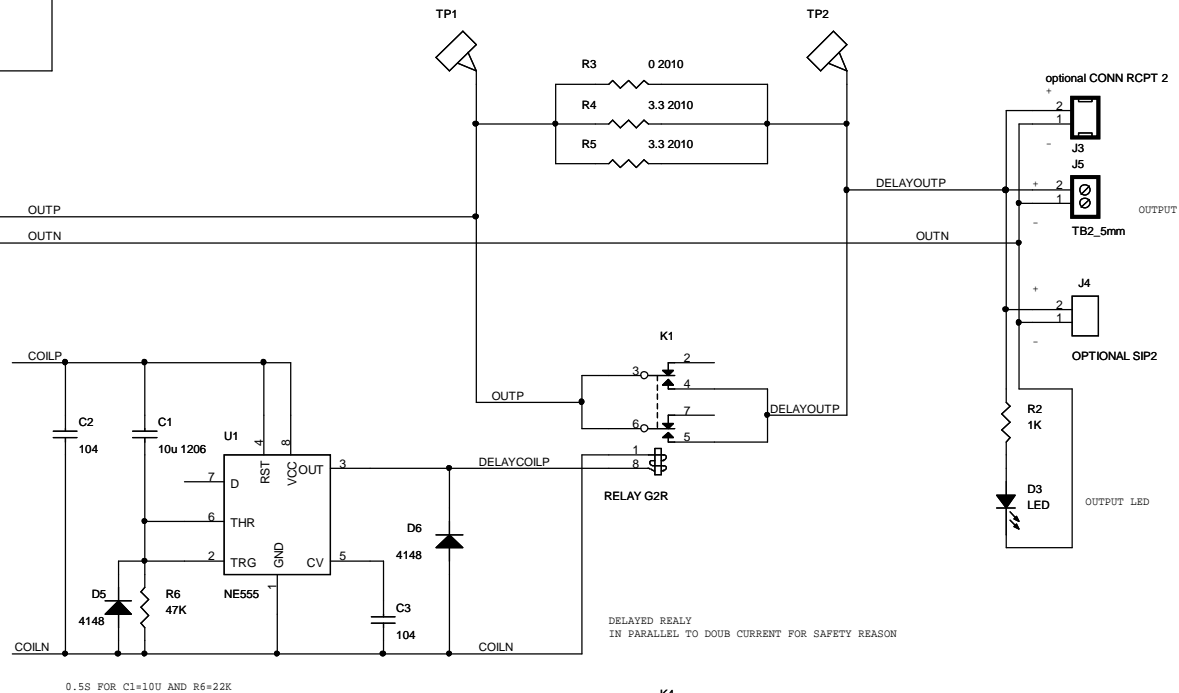
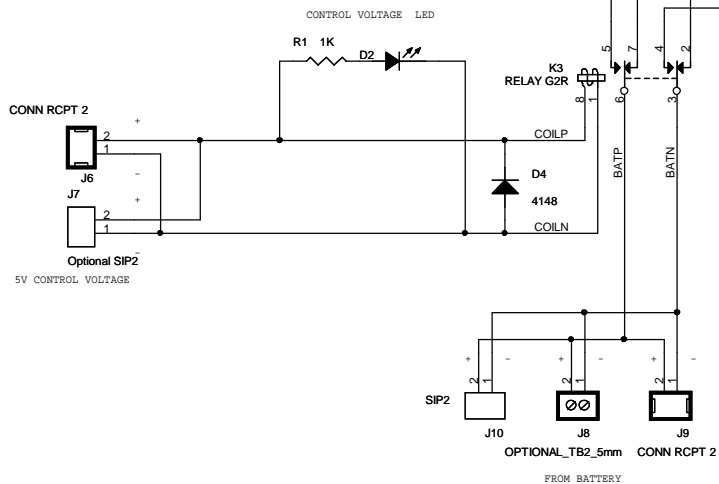
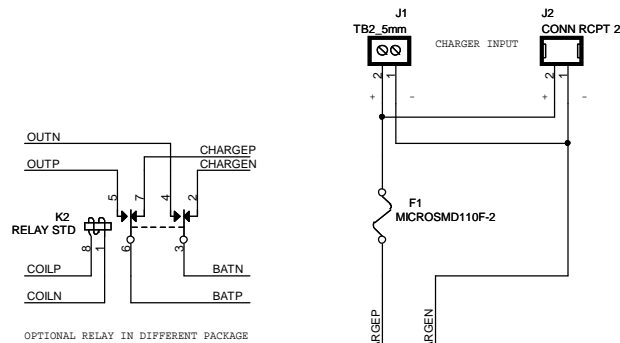


Title			
BATTERY MANAGEMENT BOARD BLOCK DIAGRAM			
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DELAY CURRENT LIMITATION RESISTOR CALCULATION:
 1(DEFAULT) NO DELAY RELAY: SHORT ANY OF R3-R5 WITH A 0 OHM JUMPER
 2 WITH DELAY RELAY:
 $R = 3 \cdot V / I$,
 WHERE I IS THE RATED CURRENT OF THE DELAY RELAY
 V IS THE BATTERY VOLTAGE
 FOR EXAMPLE IF RELAY IS 3A, BATTERY IS 3.4V, THEN
 $R2, R3, R4 = 3.4 \text{ OHM}$, OR ROUGHLY 3.6 OHM
 541-3.6WCT-ND

2012-12-09 Add optional delay relay for high current application
 Remove all options to make it easier to setup

Title BATTERY MANAGEMENT BOARD			
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Standard configuration

J6 or J7 : Control voltage input
J1 or J2: Charger input
J8 or J9: Battery input
J3 and J5 or J4: Output
J4 optional output monitoring
J10 optional battery monitoring
K2 or K3: Relay
D4: IN4148
F1: MICROSD110F-2 or just short
R4: 0 ohm 2010 or just short
R1 and R2: 1K 0603
D2 and D3: LED 0603

Current limiting configuration

J6 or J7 : Control voltage input
J1 or J2: Charger input
J8 or J9: Battery input
J3 and J5 or J4: Output
J4 optional output monitoring
J10 optional battery monitoring
K2 or K3 and K1 or K4: Relay
D4,D5, D6: IN4148
F1: MICROSD110F-2 or just short
R3,R4,R5: 3.6 ohm 2010
R1 and R2: 1K 0603
D2,D3: LED 0603
C1,C2 100n 0603
C1 10u 1206
R6 47K 0603 (adjust to change the delay time)
U1 555 SOIC8 296-14635-1-ND

Possible Part Numbers

Relays:

G2RL-2 DC5, Z3087-ND
G2R-2-DC5, G2R-2-DC5-ND
8-1393792-5, PB383-ND
Or function and pin to pin compatible

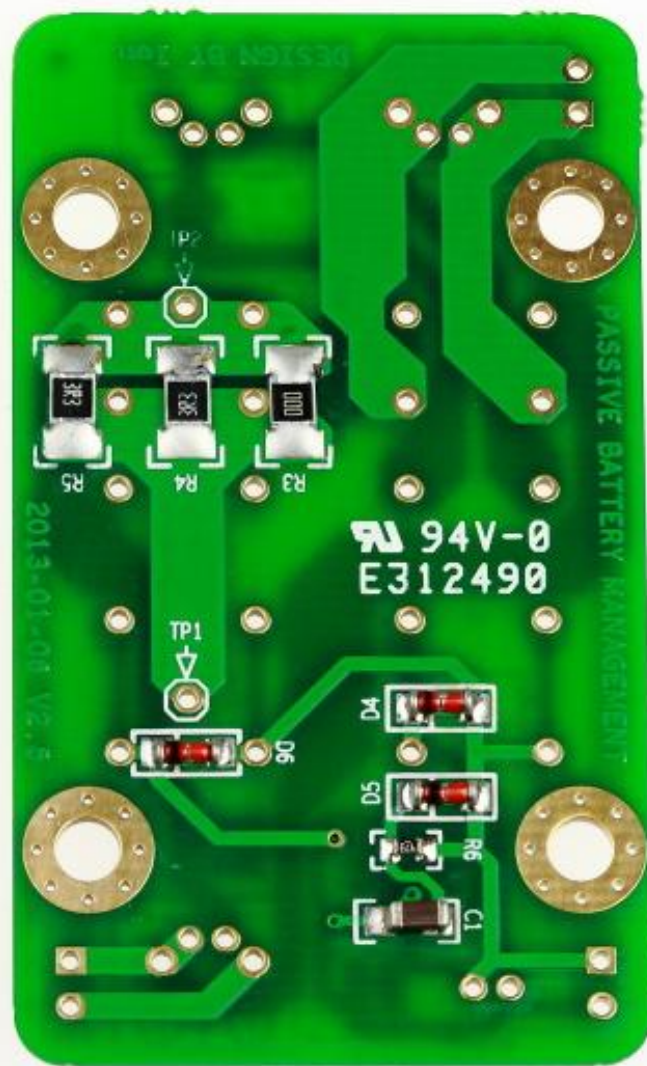
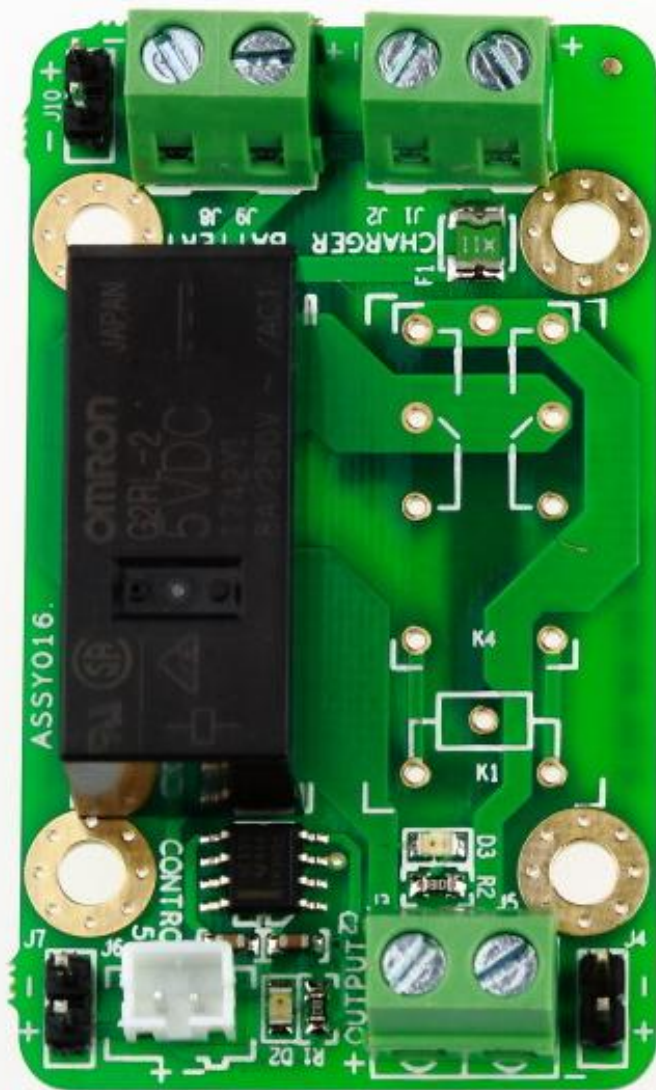
Connectors:

PH2.0mm 2P DIP, 455-1704-ND
1935161 TERM BLOCK PCB 2POS 5.0MM, 277-1667-ND
BERGSTIK II .100" SR STRAIGHT , 609-3500-ND

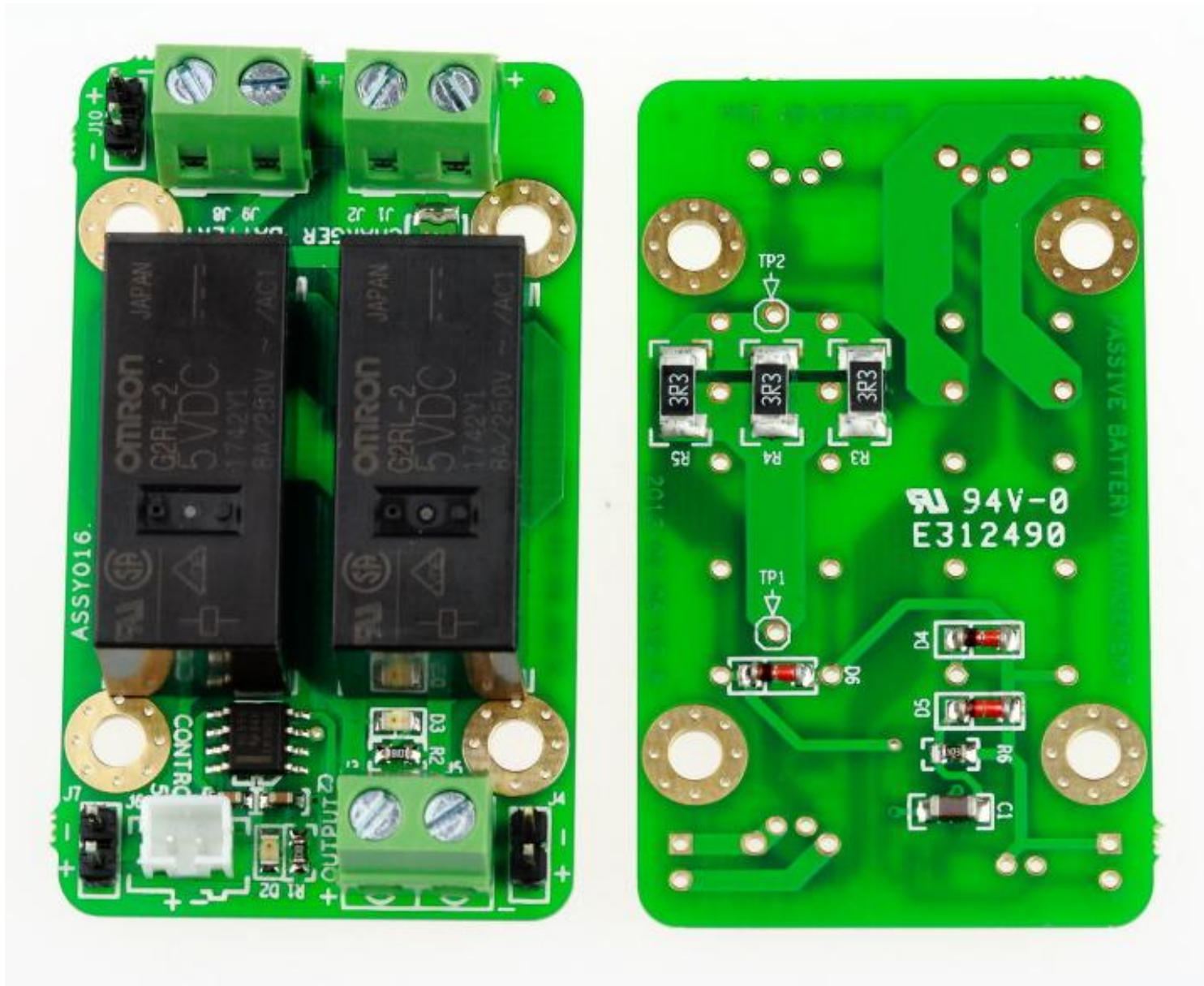
Other components:

FUSE: MICROSD110F-2
RES 3.3ohm 2010 RHM3.3BGCT-ND
LED CHIPLED 587NM YLW 0603 SMD, 475-2558-1-ND
RES 1.0K OHM 1/10W 5% 0603 SMD, 311-1.0KGRCT-ND
555 296-14635-1-ND

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BATTERY MANAGEMENT BOARD APPLICATION NOTE			
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DUAL REALY SURGE PROTECTION CONFIGURATION			
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