PowerTree

SecurBot

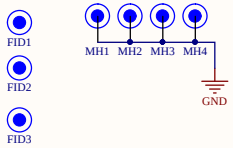
SecurBot

Revision 1

Date : 12/03/2019

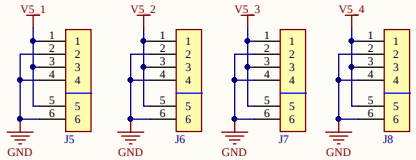
Revision history	

Package size conversion	
Metric	*Imperial*
1005	0402
1608	0603
2012	0805
3216	1206
3225	1210
6432	2512

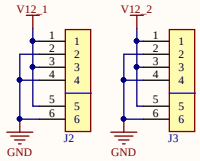


Project Title	PowerTree		
Global Project	*SecurBot*		
Size: 11x17	Group: SecurBot		Revision: 1
Date: 12/03/2019	Sheet: 1 of 7		
Filename: Title.SchDoc	Designers: Olivier Belval, Philippe Marcoux		

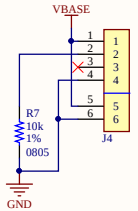
5V 2A



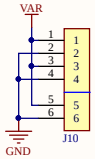
12V 8A



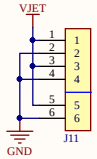
Robot base (VBAT)



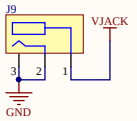
Variable 1A



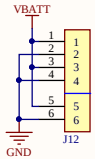
19V



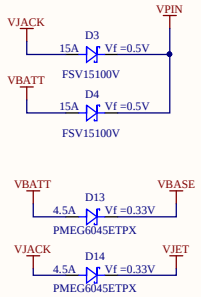
Direct Input (19V)



Battery Input (14.8V)

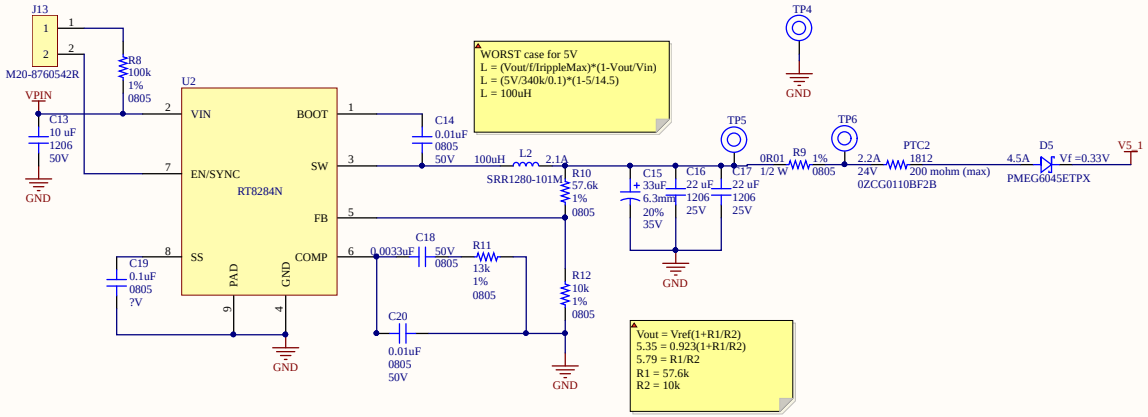


Reverse Current Protection

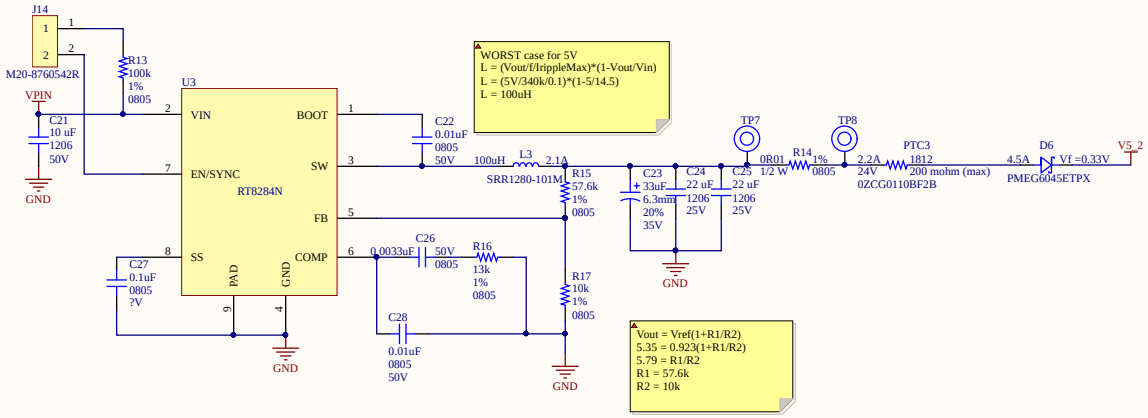


Sheet Name	Connectors	
Project Title	PowerTree	
Global Project	*SecurBot*	
Size: 11x17	Group: SecurBot	Revision: 1
Date: 12/03/2019	Sheet: 2 of 7	
Filename: Connectors.SchDoc	Designers: Olivier Belval, Philippe Marcoux	

RT8284N 14.8V -> 5V

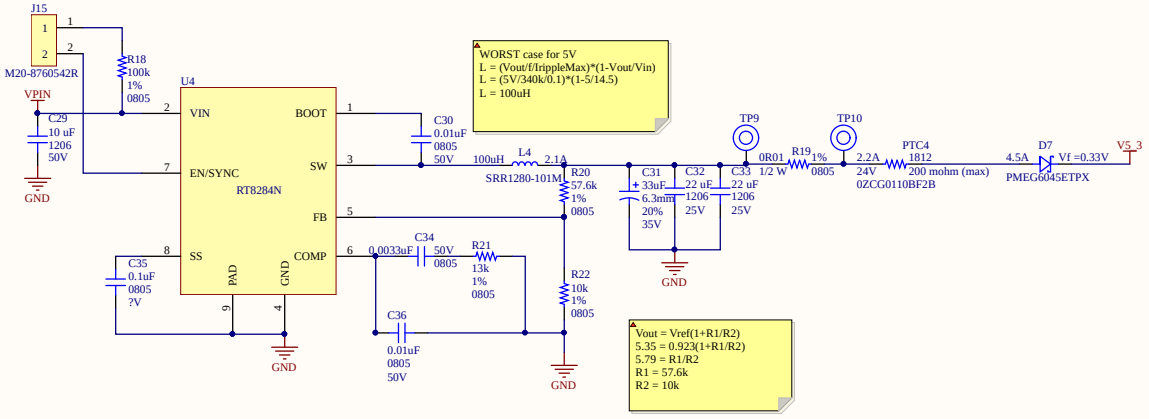


RT8284N 14.8V -> 5V

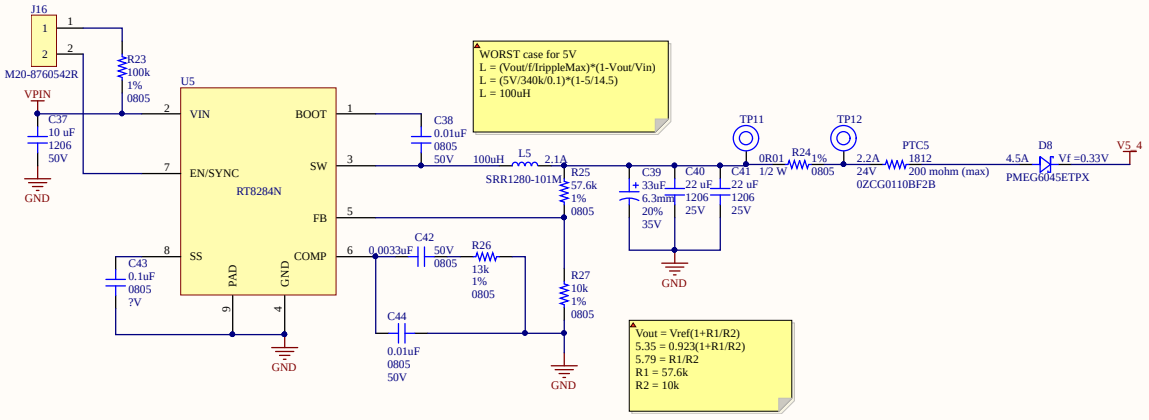


Sheet Name	5V page 1	
Project Title	PowerTree	
Global Project	*SecurBot*	
Size: Size	Group: SecurBot	Revision: 1
Date: 12/03/2019	Sheet: 3 of 7	
Filename: DC_DC_5V_1.SchDoc	Designers: Olivier Belval, Philippe Marcoux	

RT8284N 14.8V -> 5V

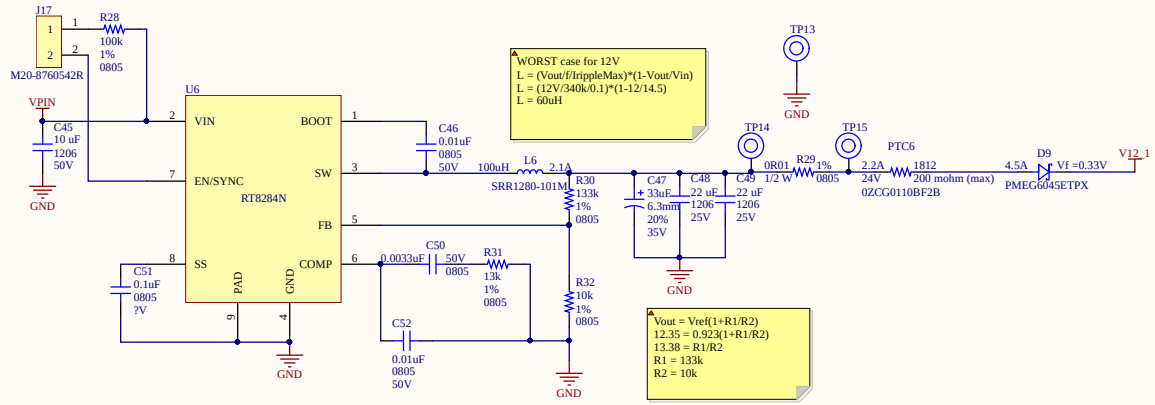


RT8284N 14.8V -> 5V

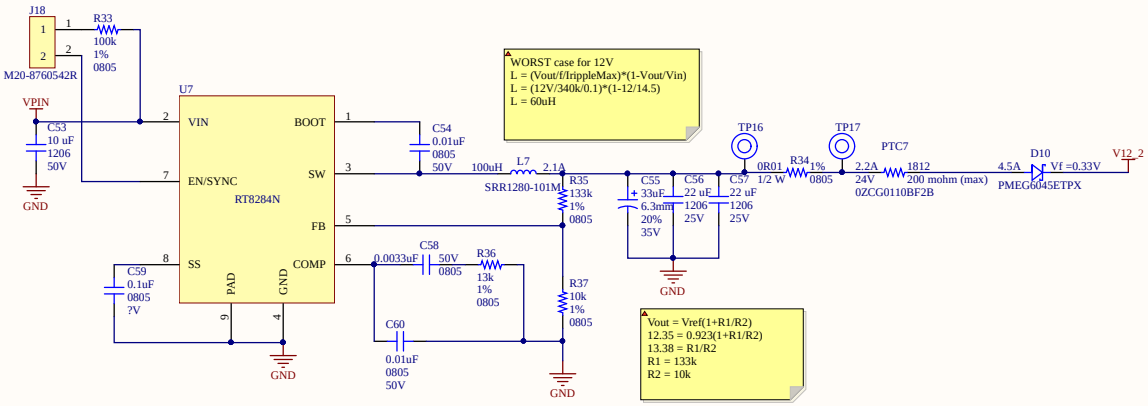


Sheet Name	5V page 2		
Project Title	PowerTree		
Global Project	*SecurBot*		
Size: 11x17	Group: SecurBot		Revision: 1
Date: 12/03/2019	Sheet: 4 of 7		
Filename: DC_DC_5V_2.SchDoc		Designers: Olivier Belval, Philippe Marcoux	

RT8284N 14.8V -> 12V

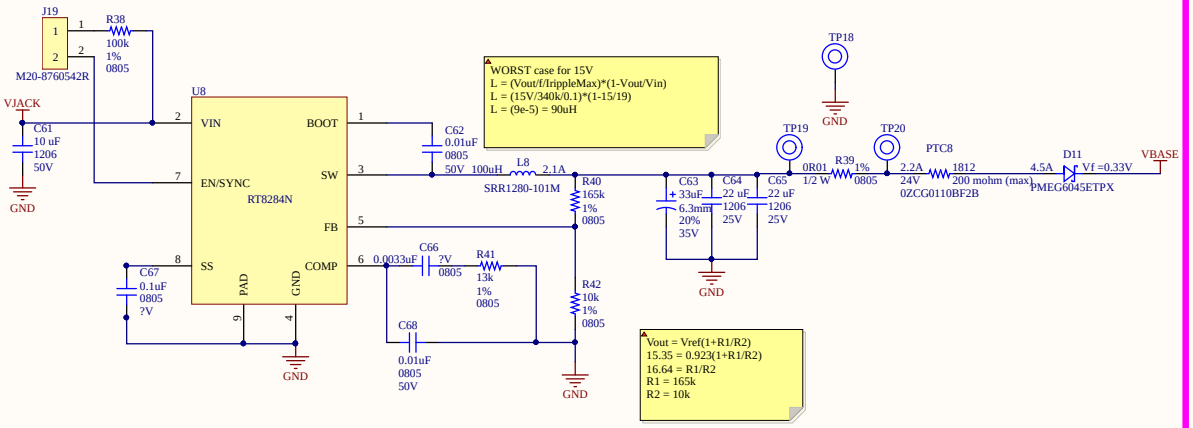


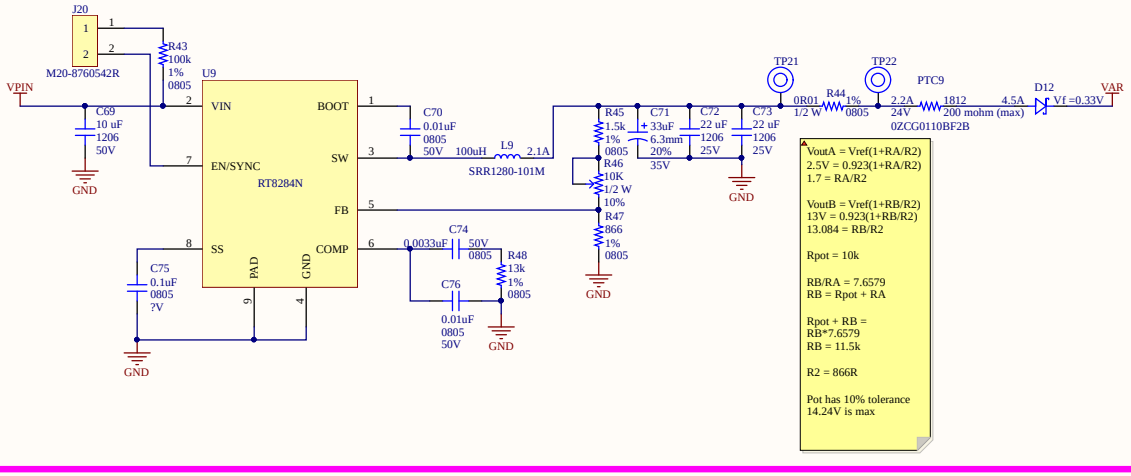
RT8284N 14.8V -> 12V



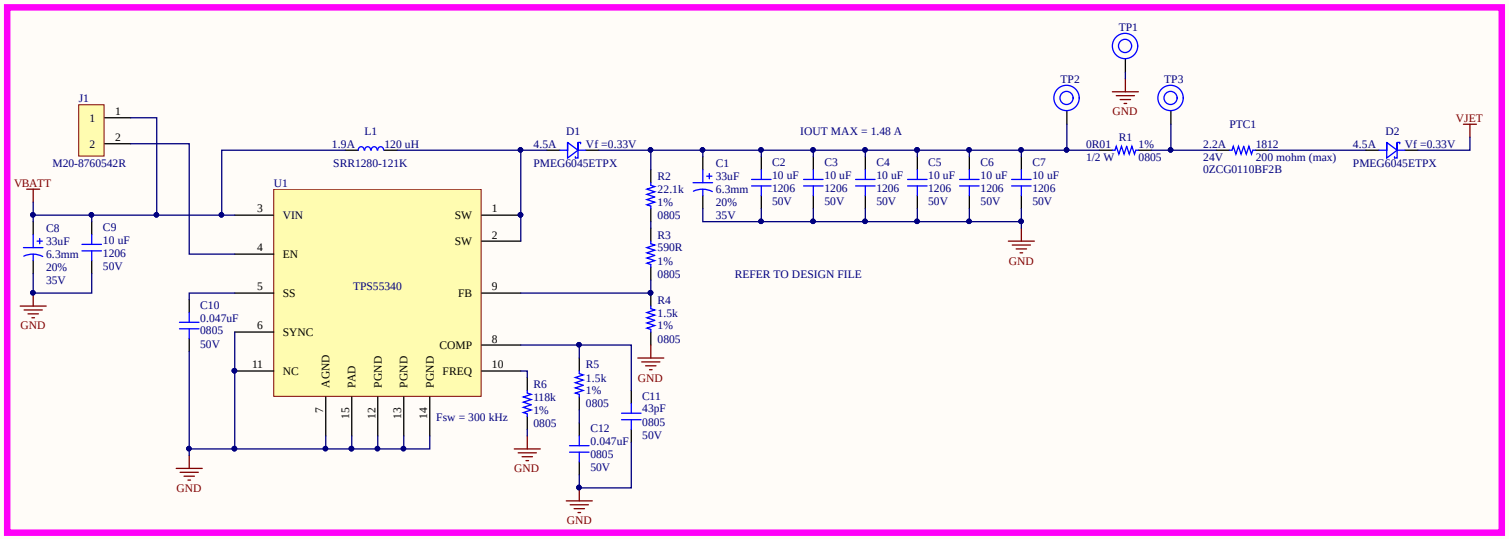
Sheet Name	12V	
Project Title	PowerTree	
Global Project	*SecurBot*	
Size: Size	Group: SecurBot	Revision: 1
Date: 12/03/2019	Sheet: 5 of 7	
Filename: DC_DC_12V.SchDoc	Designers: Olivier Belval, Philippe Marcoux	

RT8284N 19V -> 15V

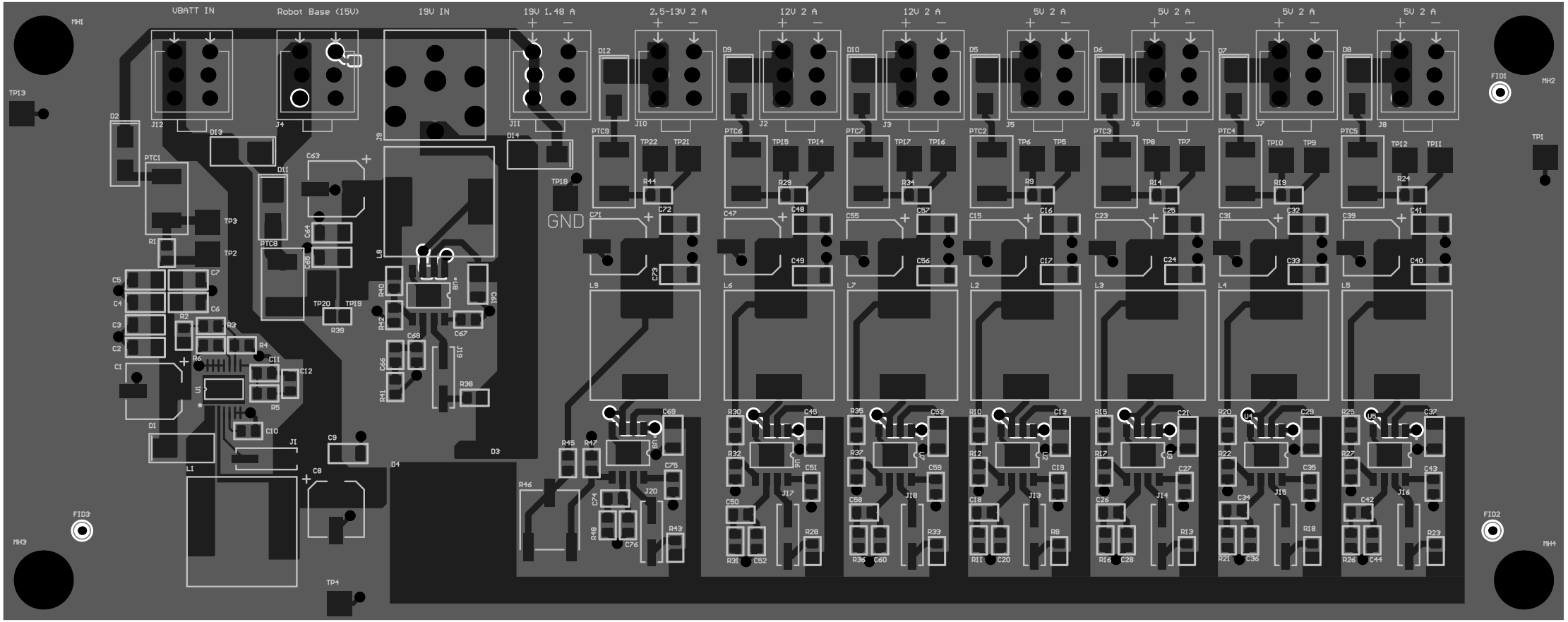




Sheet Name	15V and Variable V	
Project Title	PowerTree	
Global Project	*SecurBot*	
Size: 11x17	Group: SecurBot	Revision: 1
Date: 12/03/2019	Sheet: 6 of 7	
Filename: DC_DC_15V_AND_VAR.SchDoc	Designers: Olivier Belval, Philippe Marcoux	



Sheet Name	Boost 19V		
Project Title	PowerTree		
Global Project	*SecurBot*		
Size: 11x17	Group: SecurBot		Revision: 1
Date: 12/03/2019	Sheet: 7 of 7		
Filename: Buck Boost 19VSchDoc		Designers: Olivier Belval, Philippe Marcoux	


VBATT IN
Robot Base (15V)
19V IN
19V 1.48 A
2.5-13V 2 A
12V 2 A
12V 2 A
5V 2 A
5V 2 A
5V 2 A
5V 2 A
GND
MH1
MH2
MH3
MH4
FID1
FID2
FID3
TP1
TP3
J12
J4
J9
J11
J10
J2
J3
J5
J6
J7
J8
D2
D13
D14
D12
D9
D10
D5
D6
D7
D8
PTC1
PTC9
PTC6
PTC7
PTC2
PTC3
PTC4
PTC5
L8
L9
L6
L7
L2
L3
L4
L5
U1
U4
U5
U6
U7
U8
C63
C64
C65
C66
C67
C68
C69
C71
C72
C73
C47
C48
C49
C55
C56
C57
C15
C16
C17
C23
C24
C25
C31
C32
C33
C39
C40
C41
C45
C46
C51
C52
C53
C54
C59
C60
C61
C62
C13
C14
C19
C20
C21
C22
C27
C28
C29
C30
C35
C36
C37
C38
C43
C44
R44
R29
R34
R9
R14
R19
R24
R30
R32
R35
R37
R10
R12
R15
R17
R20
R22
R25
R27
R45
R47
R46
R48
R43
R31
R36
R11
R16
R21
R26
R28
R33
R8
R13
R18
R23
J17
J18
J19
J20
TP18
TP22
TP21
TP15
TP14
TP17
TP16
TP6
TP5
TP8
TP7
TP10
TP9
TP12
TP11
TP20
TP19
TP4