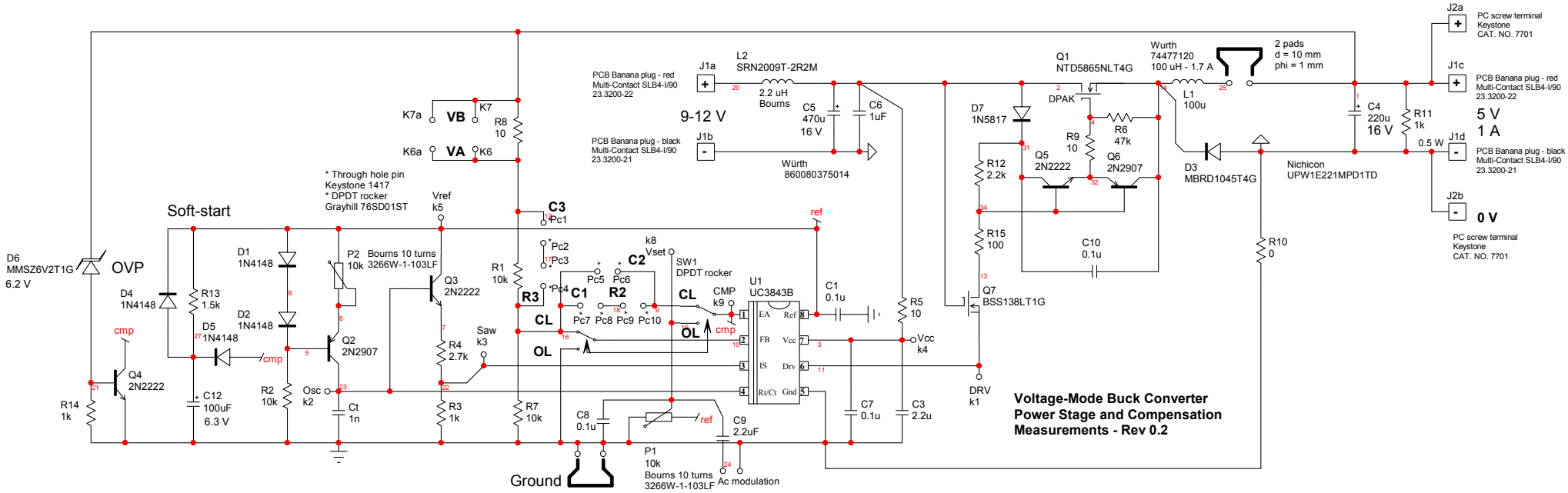
Soft-start
OVP
D6
MMSZ6V2T1G
6.2 V
D4
1N4148
R13
1.5k
D1
1N4148
D2
1N4148
D5
1N4148
P2 10k Bourns 10 turns 3266W-1-103LF
* Through hole pin
Keystone 1417
* DPDT rocker
Grayhill 76SD01ST
Vref
k5
K7a
VB
K7
R8
10
K6a
VA
K6
C3
Pc1
Pc2
Pc3
Pc4
Pc5
Pc6
Pc7
Pc8
Pc9
Pc10
C1
R2
C2
k8
Vset
SW1
DPDT rocker
CL
OL
CMP
k9
R1
10k
R3
Q3
2N2222
Q2
2N2907
Q4
2N2222
R4
2.7k
Saw
k3
R14
1k
R2
10k
Osc
k2
C12
100uF
6.3 V
Ct
1n
R3
1k
R7
10k
C8
0.1u
P1
10k
Bourns 10 turns
3266W-1-103LF
C9
2.2uF
Ac modulation
Ground
ref
cmp
U1
UC3843B
EA
Ref
FB
Vcc
IS
Drv
Rt/Ct
Gnd
C1
0.1u
C7
0.1u
C3
2.2u
R5
10
Vcc
k4
DRV
k1
Q7
BSS138LT1G
PCB Banana plug - red
Multi-Contact SLB4-I/90
23.3200-22
PCB Banana plug - black
Multi-Contact SLB4-I/90
23.3200-21
J1a
J1b
9-12 V
L2
SRN2009T-2R2M
2.2 uH
Bourns
C5
470u
16 V
C6
1uF
Würth
860080375014
Q1
NTD5865NLT4G
DPAK
D7
1N5817
R9
10
R6
47k
R12
2.2k
Q5
2N2222
Q6
2N2907
R15
100
C10
0.1u
Wurth
74477120
100 uH - 1.7 A
L1
100u
D3
MBRD1045T4G
R10
0
2 pads
d = 10 mm
phi = 1 mm
C4
220u
16 V
R11
1k
0.5 W
Nichicon
UPW1E221MPD1TD
J2a
J1c
J1d
J2b
PC screw terminal
Keystone
CAT. NO. 7701
5 V
1 A
0 V
Voltage-Mode Buck Converter
Power Stage and Compensation
Measurements - Rev 0.2