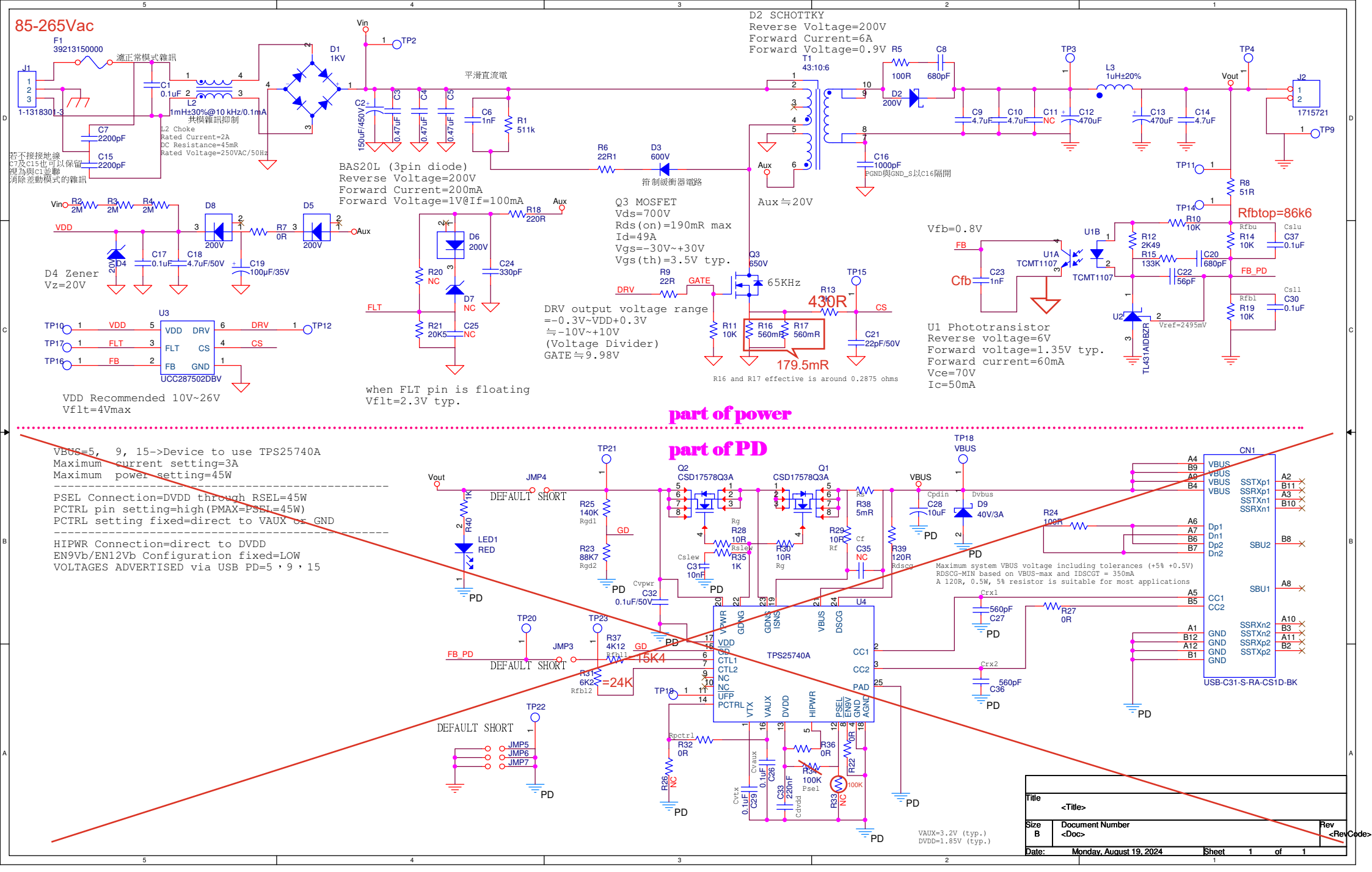
85-265Vac
F1
39213150000
濾正常模式雜訊
J1
1-1318301-3
C1
0.1uF
L2
1mH±30%@10 kHz/0.1mA
共模雜訊抑制
L2 Choke
Rated Current=2A
DC Resistance=45mR
Rated Voltage=250VAC/50Hz
C7
2200pF
C15
2200pF
若不接接地線
C7及C15也可以保留
視為與C1並聯
消除差動模式的雜訊
D1
1KV
Vin
TP2
C2
150uF/450V
C3
0.47uF
C4
0.47uF
C5
0.47uF
平滑直流電
C6
1nF
R1
511k
BAS20L (3pin diode)
Reverse Voltage=200V
Forward Current=200mA
Forward Voltage=1V@If=100mA
R6
22R1
D3
600V
箝制緩衝器電路
D2 SCHOTTKY
Reverse Voltage=200V
Forward Current=6A
Forward Voltage=0.9V
T1
43:10:6
Aux
Aux≒20V
R5
100R
C8
680pF
D2
200V
C16
1000pF
PGND與GND_S以C16隔開
TP3
L3
1uH±20%
C9
4.7uF
C10
4.7uF
C11
NC
C12
470uF
C13
470uF
C14
4.7uF
TP4
Vout
J2
1715721
TP9
TP11
R8
51R
TP14
Rfbtop=86k6
R10
10K
R14
10K
C37
0.1uF
R19
10K
C30
0.1uF
Rfbu
Cslu
Rfbl
Csll
FB_PD
R2
2M
R3
2M
R4
2M
VDD
D8
200V
D5
200V
R7
0R
Aux
D4 Zener
Vz=20V
C17
0.1uF
C18
4.7uF/50V
C19
100uF/35V
U3
TP10
TP17
TP16
VDD
FLT
FB
DRV
CS
GND
TP12
UCC287502DBV
VDD Recommended 10V~26V
Vflt=4Vmax
R18
220R
D6
200V
R20
NC
D7
NC
C24
330pF
R21
20K5
C25
NC
when FLT pin is floating
Vflt=2.3V typ.
Q3 MOSFET
Vds=700V
Rds(on)=190mR max
Id=49A
Vgs=-30V~+30V
Vgs(th)=3.5V typ.
Q3
650V
65KHz
R9
22R
GATE
R11
10K
R16
560mR
R17
560mR
179.5mR
R16 and R17 effective is around 0.2875 ohms
R13
430R
TP15
C21
22pF/50V
DRV output voltage range
=-0.3V~VDD+0.3V
≒-10V~+10V
(Voltage Divider)
GATE≒9.98V
Vfb=0.8V
FB
Cfb
C23
1nF
U1A
TCMT1107
U1B
TCMT1107
R12
2K49
R15
133K
C20
680pF
C22
56pF
U2
TL431AIDBZR
Vref=2495mV
U1 Phototransistor
Reverse voltage=6V
Forward voltage=1.35V typ.
Forward current=60mA
Vce=70V
Ic=50mA
part of power
part of PD
VBUS=5, 9, 15->Device to use TPS25740A
Maximum current setting=3A
Maximum power setting=45W
PSEL Connection=DVDD through RSEL=45W
PCTRL pin setting=high(PMAX=PSEL=45W)
PCTRL setting fixed=direct to VAUX or GND
HIPWR Connection=direct to DVDD
EN9Vb/EN12Vb Configuration fixed=LOW
VOLTAGES ADVERTISED via USB PD=5，9，15
TP21
Vout
JMP4
DEFAULT SHORT
R40
1K
LED1
RED
R25
140K
Rgd1
R23
88K7
Rgd2
GD
Q2
CSD17578Q3A
Q1
CSD17578Q3A
R28
10R
Rslew
R35
1K
Cslew
C31
10nF
R30
10R
Rg
R29
10R
Rf
C35
NC
R38
5mR
R39
120R
Rdscg
Cvpwr
C32
0.1uF/50V
TP18
VBUS
Cpdin
C28
10uF
Dvbus
D9
40V/3A
R24
100R
Maximum system VBUS voltage including tolerances (+5% +0.5V)
RDSCG-MIN based on VBUS-max and IDSCGT = 350mA
A 120R, 0.5W, 5% resistor is suitable for most applications
CN1
USB-C31-S-RA-CS1D-BK
TP20
FB_PD
JMP3
DEFAULT SHORT
TP23
R37
4K12
Rfbl1
15K4
R31
6K2
Rfbl2
=24K
TP19
TP22
DEFAULT SHORT
JMP5
JMP6
JMP7
U4
TPS25740A
VPWR
GDNG
GDNG
ISNS
VBUS
DSCG
VDD
GD
CTL1
CTL2
NC
NC
UFP
PCTRL
CC1
CC2
PAD
VTX
VAUX
DVDD
HIPWR
PSEL
EN9V
GND
AGND
R27
0R
Crx1
560pF
C27
Crx2
560pF
C36
Rpctrl
R32
0R
R36
0R
R34
100K
Psel
R22
0R
R33
NC
100K
R26
NC
Cvaux
0.1uF
C26
Cvtx
0.1uF
C29
C33
220nF
Cdvdd
VAUX=3.2V (typ.)
DVDD=1.85V (typ.)
PD
Title
<Title>
Size
B
Document Number
<Doc>
Rev
<RevCode>
Date:
Monday, August 19, 2024
Sheet
1
of
1